NATIONAL AGRICULTURAL DEVELOPMENT PROGRAMME (NADP)

DISTRICT AGRICULTURE PLAN

DHARMAPURI DISTRICT

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

2008

NATIONAL AGRICULTURAL 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.

(C. RAM AS AMY)

Coimbatore
June 30, 2008

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Director, CARDS

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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 I Phase projects also provided the needed inputs.

I take this opportunity to express my deep sense of gratitude to Commissioner of Agriculture, Commissioner 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)

EXECUTIVE SUMMARY

Introduction

Agriculture is the major profession in Dharmapuri district, which supports 70 percent of the Population. The net sown area is about 1,63,053 hectares (2005-06). The agriculture sector, which was targeted at a growth rate of about four percent during 10th plan period, could not be achieved due to the drought conditions prevailed in the district during the first two years of the plan period. It is expected that the cropping intensity is to be increased to 140 per cent from the current level of 120 per cent. Similarly, the trend is to double the horticulture production in the district during the plan period. The growth of this sector is vitally important to provide food security, sustainability and to increase employment opportunity to the rural people in the district. To achieve this goal, all the sectors involved in the rural development need to respond through concreted effort with active support of all developing agencies of the Government and the stakeholders concerned.

Areas / Sectors which need to be addressed

The agriculture sector and the allied sectors such as horticulture, animal husbandry, fisheries, sericulture, agricultural marketing and agricultural engineering are the major sectors to be improved to enhance production and productivity of the crops and other products to improve the net income of the producers. This in turn will contribute for increasing the agricultural growth to four percent in the XI plan.

On going Programmes in the District

The Department of Agriculture is currently implementing various programmes in terms of increasing the productivity of crops mainly rice, cotton, groundnut, gingelly, sunflower, pulses, millets etc. The programmes include crop-wise interventions such as Integrated Nutrient Management, IPM, demonstration of new technologies (SRI in

paddy), promotion and distribution of bio-fertilizers, certified seeds etc. In addition, organizing farmer's field schools and farmers' visits are also included in the ongoing programmes. The Department of Horticulture is implementing a number of programmes such as Integrated Horticulture Development Programme, Integrated Tribal Development Programme, IAMWARM, National Horticulture Mission and Micro Irrigation in Dharmapuri district.

The Sericulture Department is implementing the programmes such as new plantation of mulberry, provision of improved varieties, drip irrigation, provision of rearing appliances and sheds etc. The Agricultural Engineering Department is implementing projects on Soil conservation measures like contour Stone wall, check dams etc., in tribal hilly regions, conservation of rainwater harvesting structures (percolation ponds, checkdams, Ooranis, farm ponds etc.), introduction of new machineries,popularization of farm machineries such as tractors, power tillers and implements like rotavator, micro irrigation etc., to improve the welfare of the farmers.

District Plan at a Glance

To achieve the overall growth in all the agricultural and allied sectors,the district action plan is formulated through project mode. Some of the important proposals are increasing Water Use Efficiency (WUE) and Fertilizer Use Efficiency (FUE) in sugarcane, increasing production of pulses and improving soil fertility are in the agricultural sector. Precision farming and support system for tomato and banana, organizing enterprising farmers associations are some of the relevant proposals in the horticultural sector. Similarly, feed and fodder development,strengthening model livestock farms and expansion of fish culture and seed production are the proposed development activities in livestock and fishing sectors.Stregthening rearing shed and appliances for sericulture, market infrastructure activities, minimizing post harvest losses, rehabilitation and improvements of water bodies, strengthening water harvesting

structures, soil and water conservation works, afforestation etc are the important proposals under NADP district action plan. The total budget requirements of the proposed plan for the development of agricultural and allied sectors under NADP are given below. The total budget any requirement for implementing various programmes in different sectors in the next four years 2008-09 to 2011-2012 is Rs. 30973.72 lakhs in Dharmapuri district, as summarized in the following table.

The Budgetary Requirements for the Development Activity in Dharmapuri District

(Rs. in Lakhs)

Sl. No.	Name of the Sector	Year				Total
		2008-09	2009-10	2010-11	2011-12	
1	Agriculture	1907.32	1911.72	1918.52	1925.32	7662.88
2	Horticulture	695.20	555.82	591.01	585.28	2427.29
3	Animal Husbandry	480.16	196.47	194.38	192.87	1063.80
4	Fisheries	214.86	67.22	19.36	16.36	317.80
5	Agricultural Engineering	2877.28	3022.96	3164.94	3303.44	12368.62
6	Agricultural Marketing	70.85	327.39	370.53	271.74	1040.51
7	Sericulture	520.88	520.88	520.88	520.88	2083.52
8	Public Works Department	615.50	487.00	505.00	533.00	2140.50
9	Forestry	467.20	467.20	467.20	467.20	1868.80
	Total	**7849.25**	**7556.66**	**7751.82**	**7816.09**	**30973.72**

Public Private Partnership in the Proposed Plan

The public private partnership can be encouraged in all sectors, wherever possible, involving huge investments in promoting the enterprises. In Dharmapuri district, some of the important enterprises like setting up of new solvent extraction plants, cold storage chains, seed processing units, fruit processing units, value added enterprises etc., are being proposed in the coming years to meet both the domestic and international demands.

Expected Outcomes as a Result of Implementation of the Plan

Implementation of NADP funded schemes / projects in Dharmapuri district in agricultural and allied sectors, will definitely address the current issues and resolve the problems and fulfill the gaps identified in each sector. In turn, it will reflect on increasing employment, production and farmers net income improving the standard of living of the farmers and other stakeholders concerned.

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 the 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 11^{th} 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 the 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, 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.

1.1 Methodology adopted for Preparation of District Agricultural 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 DAP is 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.

1.2 Major Areas of Focus

(a) Integrated development of major food crops like paddy, coarse cereals, minor millets, pulses and 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 and 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 and

(l) Innovative schemes.

1.3 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. PRA (Participatory Rural Appraisal) technique is employed in order to identify the SWOC (Strength, Weakness, Opportunity, and Constraints) of the agricultural and agri-allied activities of the district.

1.4 Formation of District Planning Unit

To facilitate the involvement of local representatives in the preparation of plans, planning units in each district was formed. 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.

1.5 Sensitization Workshop

A series of Sensitization Workshops was conducted from 04.03.2008 to 18.03.2008 at TNAU Campus. The TNAU Staff from Krishi Vigyan Kendras and Research Stations, officials from line Departments *viz.*, Agriculture, Horticulture,

Agricultural Engineering and Tamilnadu 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.

1.6 Preparation of draft action plan and presentation in District Collector's Meeting

Based on the baseline information and proposals, draft action plan was prepared and this was presented in the District Collectors Meeting held on 09.05.2008 under the chairmanship of District Collector, at Dharmapuri Collectorate. This meeting was attended by the scientists from TNAU, officials from line departments and the representatives of local bodies and wide coverage was given in the media also.

1.7 Finalization

The feedback details received in the District Collector's Meeting were 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

Dharmapuri district has five revenue taluks and eight blocks for effective administration. The revenue taluks are Dharmapuri, Palacode, Pennagaram, Harur and Pappireddipatti. The following are the revenue blocks in this district viz., Dharmapuri, Nallampalli, Palacode, Pennagaram, Harur, Karimangalam, Morappur and Pappireddipatti.

2.2. District at a Glance

Dharmapuri district is characterized by its all round backwardness which is often affected by severe droughts. It has a normal rainfall of 855.9mm against the state average of 961.8mm. Out of the total cropped area of 1,69,089 ha, the area sown more than once is 15767 ha, which works out to be only 9.3 per cent. The major crops raised in this district are millets and cereals in 69162 ha, which indicate that the agriculture is providing only seasonal work for a few days in a year. There is a working population of 6,60,456 (384961 males and 275495), out of which the main agriculture labours are 1,52,658 and main casual labour workers are 2,40,963.

2.2.1. Location

Dharmapuri district, which came into existence from 2.10.1965 is located in the North Western Corner of Tamil Nadu and is bounded by Tiruvannamalai and Villupuram districts on the East, Salem district on the South, Krishnagiri district on the North and Cauvery river on the West. It is located between latitudes N 11^{o}.47' and 12^{o}.43' and longitudes E 78^{o} 02' and 78^{o} 40'. The total geographical area of Dharmapuri District is 4497.77 sq.kms. i.e. 3.46 per cent of the state. The location of the district in Tamil Nadu state, the district map and the blockwise locations are indicated in figures 1 to 3.

Figure 1. Location of Dharmapuri District in Tamil Nadu

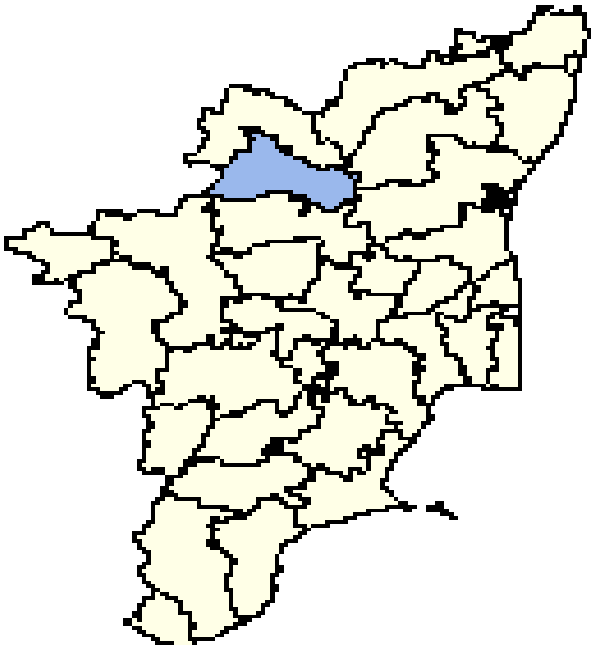


Figure 2. Map of Dharmapuri District

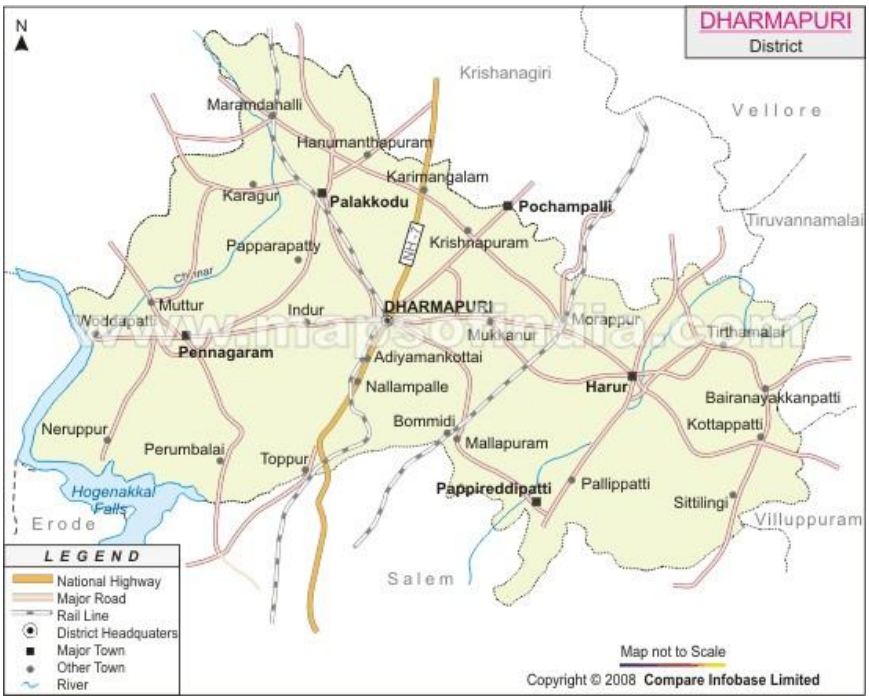
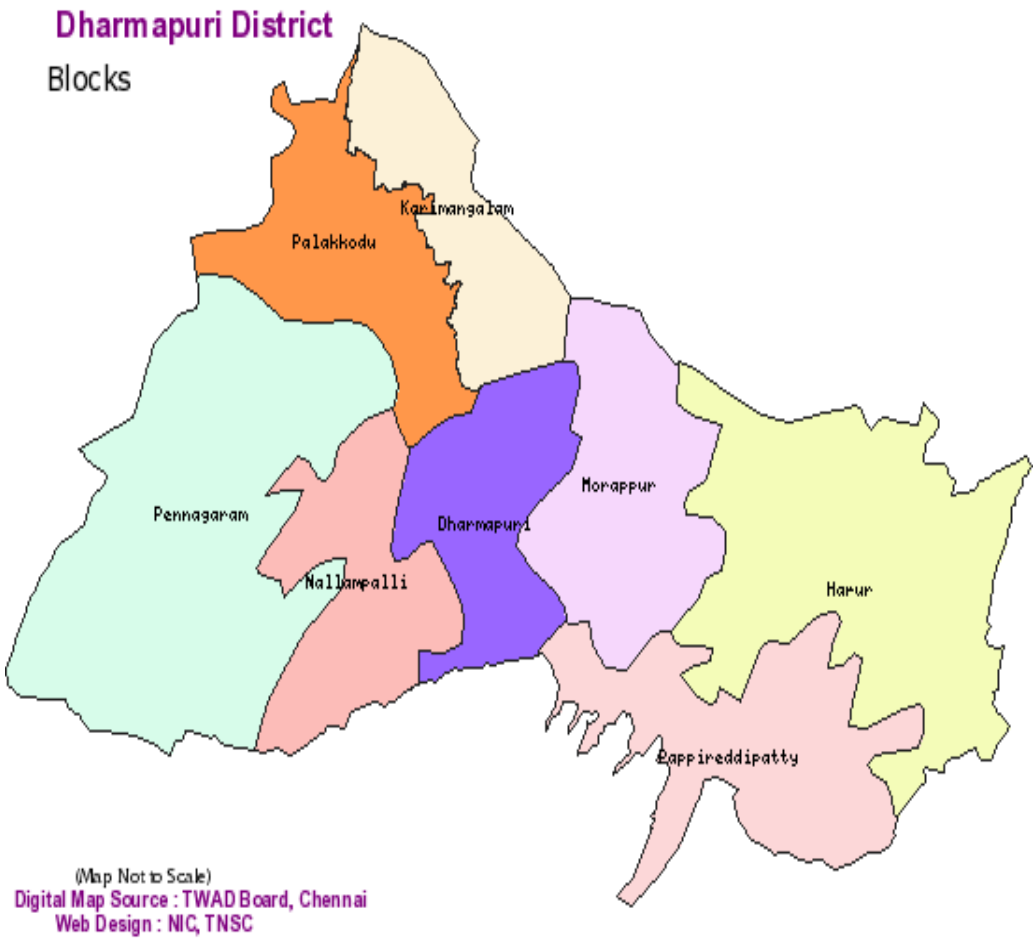


Figure 3. Blockwise Map of Dharmapuri District



2.2.2. Demography

The population as per the Census 2001 was 28.33 lakhs, constituting 4.5 per cent of the state population. It shows a growth rate of 16.66 per cent over the 1991 census population. The district ranked 7- th in the State in terms of population. Population density was 294 per Sq.Km, which is far below the State average 478. Male population constituted 51.61 per cent. Table 2.1 shows the demographic details of the district vis- a - vis Tamil Nadu state. The literacy percentage and sex ratio of the district are very low when compared to state average.

Table 2.1 Demographic Profile of Dharmapuri District vis-a-vis State (Census-2001)

(in numbers)

S.No.	Attribute	Dharmapuri District	Tamil Nadu
1	Population in Lakhs	28.33	621.11
2	Population density Per Sq.Km	294	478
3	Male Population in lakhs	14.62	312.69
4	Female Population in lakhs	13.71	308.42
5	Literacy Rate in per cent	59.23	73.47
6	Sex Ratio (Females / 1000 males)	938	986

2.2.3. Occupational Pattern

According to the 2001 census, nearly 50 per cent of the district population constituted the workforce. Nearly 70 per cent of the workers are depending on agriculture. Table 2.2, below shows the occupational pattern of the work force available in the district.

Table 2.2 Occupational Pattern of Dharmapuri District as per census 2001

S.No.	Category	No. of persons employed	Per cent employed to total
1	Cultivators	544627	38.4
2	Agricultural labourers	449540	31.7
3	Household industry workers	34414	2.4
4	Other workers	391036	27.5
	Total	**1419617**	**100.0**

2.2.4. Soils and Topography

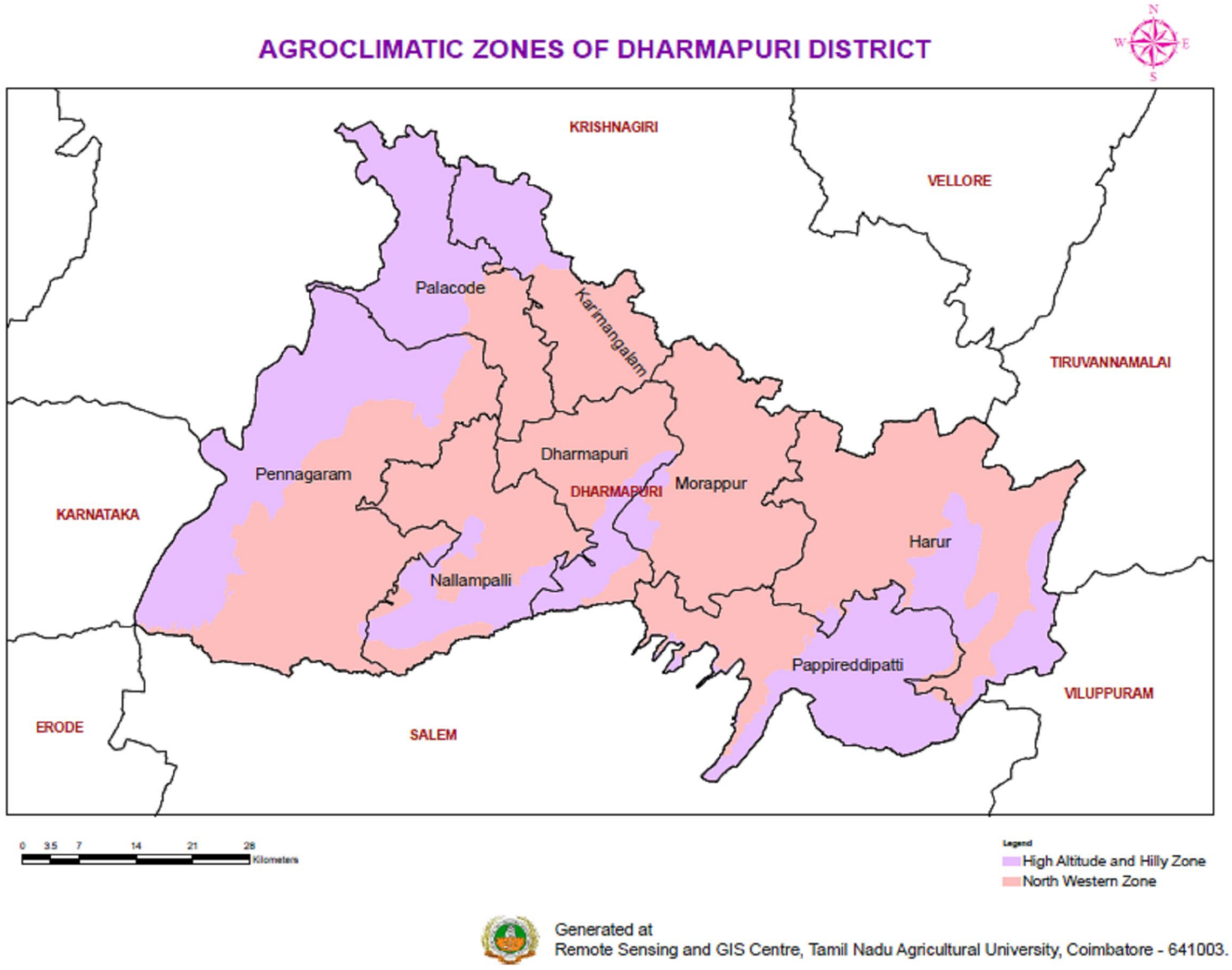
The Soil type ranges from black to mixed loam. The soils of the district can be classified under Five categories *viz.* clay soil, red loam, laterite soil, red sandy soil, sandy coastal Alluviam. The district is predominantly seen with red sandy soil.Patches of saline and alkaline soils are also spotted in Dharmapuri district.

Red sandy soils are seen in Harur Taluk. Black and loam soils are found in Dharmapuri taluk. Generally the soil is low in Nitrogen and Phosphate content with no marked variation between taluks. The South-East and South-West borders of the district are spotted with undulated terrains with forest cover.

Dharmapuri Soils and Area in hectare

Soil Description	Area (ha)
Deep, fine, mixed, Alfisols	81070.46
Very deep, fine loamy, mixed, Ultisols	36691.29
Moderately deep, clayey skeletal, mixed, Inceptisols	29708.29
Deep, fine loamy, mixed, Alfisols	24757.36
Moderately deep, fine, mixed, Alfisols	21365.28
Deep, fine, mixed, Inceptisols	20696.09
Moderately shallow, fine loamy, mixed, Entisols	20469.86
Deep, loamy skeletal, mixed, Alfisols	17578.37
Very shallow, loamy skeletal, mixed, Entisols	16911.90
Shallow, loamy skeletal, mixed, Inceptisols	13747.04
Moderately deep, clayey skeletal, mixed, Alfisols	12730.04
Very deep, fine loamy, mixed, Alfisols	12561.73
Deep, fine, montmorillonitic, Vertisols	11958.48
Moderately shallow, loamy skeletal, mixed, Entisols	10862.45
Moderately deep, fine loamy, mixed, Inceptisols	9858.16
Deep, coarse loamy, mixed, Ultisols	9572.46
Moderately shallow, clayey skeletal, mixed, Inceptisols	7876.57
Very deep, fine silty, mixed, Entisols	7460.16
Shallow, loamy, mixed, Alfisols	6286.84
Very shallow, loamy, mixed, Entisols	5919.44
Moderately shallow, fine, mixed, Inceptisols	5183.67
Moderately shallow, fine, mixed, Alfisols	4944.80

Soil Description	Area (ha)
Shallow, loamy, mixed, Inceptisols	4093.41
Very deep, fine, mixed, Alfisols	3775.93
Very deep, fine loamy, mixed, Inceptisols	3667.62
Deep, fine, mixed, Mollisols	3226.17
Moderately shallow, fine, montmorillonitic, Inceptisols	2484.29
Shallow, clayey, mixed, Inceptisols	2016.44
Very deep, contrasting particle size, mixed, Entisols	1831.71
Moderately shallow, fine loamy, mixed, Alfisols	1694.82
Deep, fine, montmorillonitic, Inceptisols	1550.08
Moderately deep, loamy skeletal, mixed, Inceptisols	1549.50
Moderately shallow, coarse loamy, mixed, Inceptisols	1463.31
Very deep, fine, montmorillonitic, Vertisols	1428.53
Shallow, loamy skeletal, mixed, Alfisols	1306.39
Deep, fine loamy, mixed, Ultisols	1147.09
Shallow, clayey skeletal, mixed, Alfisols	976.95
Shallow, clayey, mixed, Alfisols	975.38
Shallow, clayey, mixed, Ultisols	856.84
Moderately deep, coarse loamy, mixed, Inceptisols	850.07
Moderately deep, fine, montmorillonitic, Vertisols	593.89
Deep, fine loamy, mixed, Entisols	564.15
Moderately deep, fine loamy, mixed, Alfisols	526.72
Deep, fine loamy, mixed, Inceptisols	458.80
Very shallow, loamy skeletal, mixed, Inceptisols	347.24
Moderately deep, loamy skeletal, mixed, Ultisols	345.40
Shallow, clayey skeletal, mixed, Inceptisols	320.46
Moderately deep, fine, mixed, Inceptisols	315.26
Moderately deep, fine, montmorillonitic, Inceptisols	41.33
Moderately shallow, coarse loamy, mixed, Entisols	17.11
Moderately shallow, clayey skeletal, mixed, Alfisols	2.14


AGROCLIMATIC ZONES OF DHARMAPURI DISTRICT
N
W
E
S
KRISHNAGIRI
VELLORE
TIRUVANNAMALAI
KARNATAKA
ERODE
SALEM
VILUPPURAM
DHARMAPURI
Palacode
Karimangalam
Dharmapuri
Pennagaram
Morappur
Harur
Nallampalli
Pappireddipatti
0 3.5 7 14 21 28
Kilometers
Legend
High Altitude and Hilly Zone
North Western Zone
Generated at
Remote Sensing and GIS Centre, Tamil Nadu Agricultural University, Coimbatore - 641003.

North Eastern Zone

Districts of Thiruvallur, Vellore, Chinglepattu, Thiruvannamalai, Viluppuram, Cuddalore (excluding Chidambaram and Kattumannarkoil taluks), some parts of Perambalur including Ariyalur taluks and also Chennai.

North Western Zone

Dharmapuri district (excluding hilly areas), Salem, Namakkal district (excluding Tiruchengode taluk) and Perambalur taluk of Perambulur district.

Western Zone

Erode, Coimbatore, Dindugal, Theni districts, Tiruchengode taluk of Namakkal district, Karur taluk of Karur district and some western part of Madurai district.

Cauvery Delta Zone

Thanjavur, Thiruvarur, Nagapattinam districts and Musiri, Tiruchirapalli, Lalgudi, Thuraiyur and Kulithalai taluks of Tiruchirapalli district, Aranthangi taluk of Pudukottai district and Chidambaram and Kattumannarkoil taluks of Cuddalore district.

Southern Zone

Sivagangai, Ramanathapuram, Virudunagar, Tuticorin and Tirunelveli districts and Natham and Dindigul taluks of Dindigul district, Melur, Tirumangalam, Madurai South and Madurai North taluks of Madurai district and Pudukkottai district excluding Aranthangi taluk.

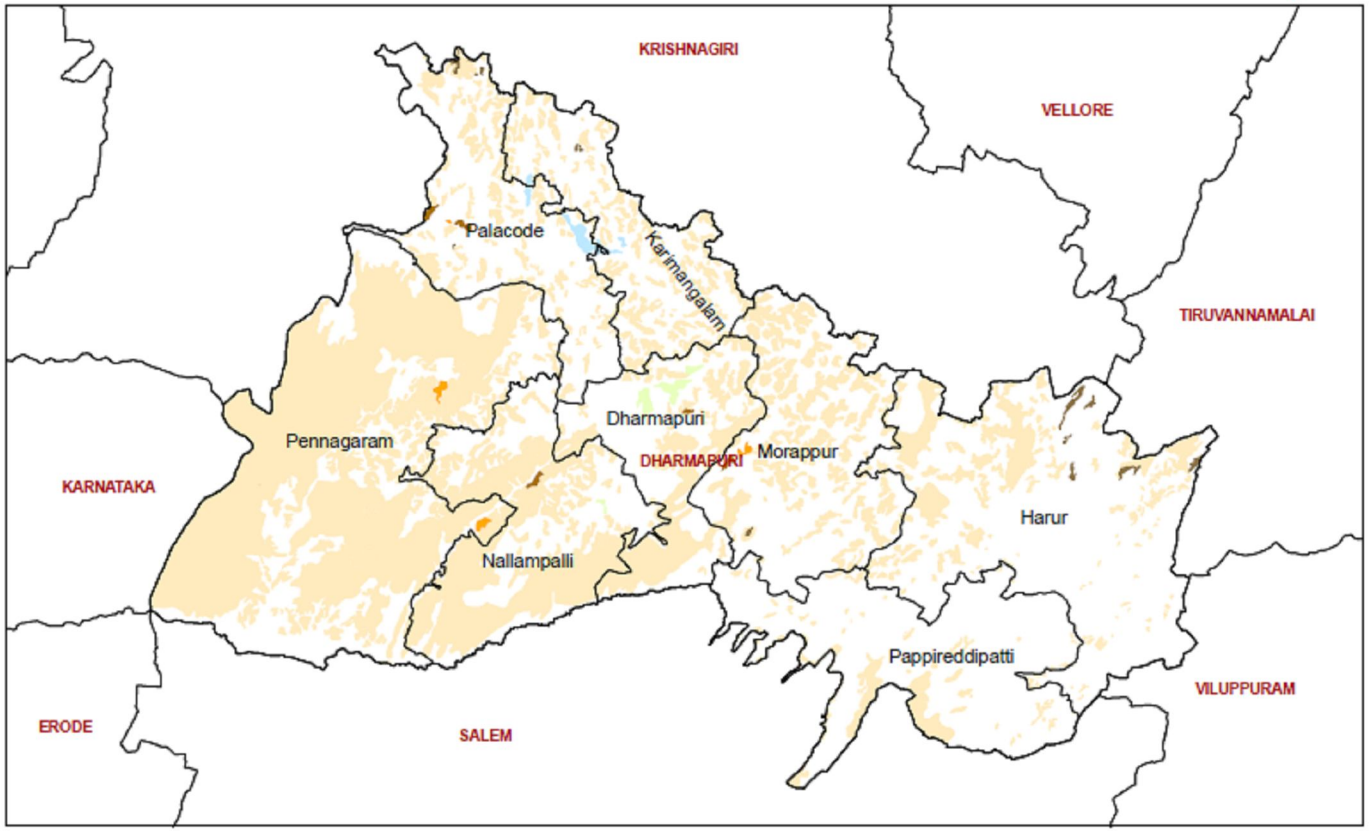
High Rainfall Zone

Kanayakumari district.

High Altitude and Hilly Zone

Hilly regions, namely the Nilgiris, Shevroys, Elagiri-Javvadhu, Kollimalai, Patchaimalai, Anamalais, Palanis and Podhigaimalais.

LAND DEGRADATION MAP OF DHARMAPURI DISTRICT



Explanation of Different Land Degradation Categories

Land degradation, in general, implies temporary or permanent recession from a higher to a lower status of productivity through deterioration of physical, chemical and biological aspects. The physical processes, which contribute to land degradation, are mainly water and wind erosion, compaction, crusting and water logging. The chemical processes include salinization, alkalization, acidification, pollution and nutrient depletion. The biological processes, on the other hand are related to the reduction of organic matter content in the soil, degradation of vegetation and impairment of activities of micro-flora and fauna.

Water Erosion

Water erosion is the most widespread form of degradation and occurs widely in all agro-climatic zones. The displacement of soil material by water can result in either loss of top soil or terrain deformation or both. This category includes processes such as splash erosion, sheet erosion, rill and gully erosion. The soil erosion is initiated when raindrops fall onto the bare soil surface. The impact of raindrops breaks up the surface soil aggregates and splashes particles into the air. On sloping land relatively more of the detached material will fall down slope resulting in runoff. This subsequently lead to different types of water erosion depending on the gravity of the problem, susceptibility of land and continuity of the process.

1. ***Sheet erosion***

   It is a common problem resulting from loss of topsoil. The loss of topsoil is often preceded by compaction and/or crusting, resulting in a decrease of infiltration capacity of the soil. The soil particles are removed from the whole soil surface on a fairly uniform basis in the form of thin layers. The severity of the problem is often difficult to visualize with naked eyes in the field.

2. Rills

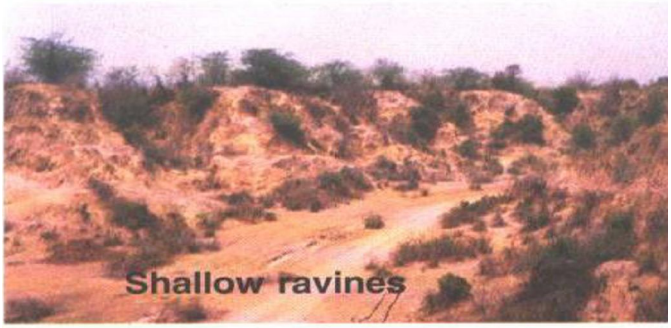
When the surface runoff goes in the form a concentric flow, a tiny water channels are formed in the field. These are small rivulets of such a size that they can be worked over with farm machinery. Rills are generally associated with the cultivated lands and are visible in the ploughed soil after first heavy showers. One important feature of rills is that they do not occur at the same place repeatedly. This is a temporary concentric flow of runoff, which could vanish after ploughing the land.

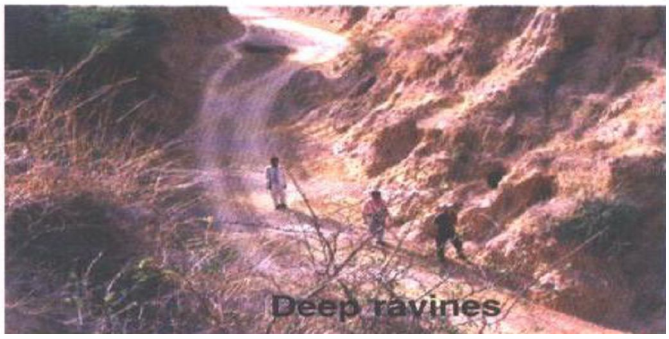
3. Gullies

Gullies are formed as a result of localized surface run-off affecting the unconsolidated material resulting in the formation of perceptible channels causing undulating terrain. If rills are neglected and the erosion continues for a long time, it develops in to gullies. They are commonly found in sloping lands, developed as a result of concentrated run-off over fairly long time. They are mostly associated with stream courses, sloping grounds with good rainfall regions and foot hill regions. These are the first stage of excessive land dissection followed by their networking which leads to the development of ravenous land.

4. Ravines

The word ravine is usually associated not with an isolated gully but an intricate network of gullies formed generally in deep alluvium and entering a nearby river, flowing much lower than the surrounding tablelands. Ravines are basically extensive systems of gullies developed along river courses. Further classification of this category is possible based on the depth, width, bed slope, frequency and morphology of bed material of the ravines. Based on the depth of the ravines, which has a characteristic manifestation on the satellite image, two subcategories are possible for delineation viz., shallow ravinous and deep ravenous lands.





Wind Erosion

It implies uniform displacement of topsoil by wind action. It can result in loss of topsoil and the deposition of the eroded material elsewhere leads to formation dune complexes. The risk of wind erosion is severe in the arid and semi-arid areas. It includes both the removal and deposition of soil particles by wind action and the abrasive effects of moving particles as they are transported. Not only can the wind remove topsoil from good farmland; it can result in additional damage by burying land, buildings, machinery, etc. with unwanted soil. It occurs when soil is left devoid of vegetation either because of poor rainfall to support any vegetal cover or loss of vegetation due to overgrazing. In the sand deposited areas with rainfall the sand gets stabilized partially of fully depending on vegetal cover it establishes.

During high winds the finer, and commonly more fertile, particles are swept high in the air and are sometimes carried for great distances as dust storms; while coarser particles are rolled or swept along on or very near the soil surface to be piled into depressions. The process is highly dynamic and requires careful evaluation of the site and process.

5. Sheet Erosion

It implies uniform displacement of topsoil by wind action as thin layers / sheets. During wind storms, the dry finer soil particles which could be suspended into air will be transported longer distances, while the heavier particles creeps on the surface and generally will be transported to a shorter distances. It may seriously influence the infrastructures (roads. railway lines. buildings. waterways, etc.). The uneven displacement of soil material by wind action leads to deflation hollows and dunes. The lifted medium to coarse soil particles may reduce the productivity of adjacent fertile land when they are deposited in the form of sand castings.

6. Stabilized Dunes / Partially stabilized Dunes

Depending on the rainfall and protection available from grazing, the bare sand dunes gradually establishes vegetal cover thus making them to get stabilized. In partially stabilized dunes, the erosion / deposition will be still active to some extent. When they established a good vegetal cover either in the form of grasses, shrubs and scrubs, they get stabilized and the erosion / deposition activity will be at minimal. By virtue of vegetal cover and physiography, they are discernible on satellite imagery.

Stabilized sandune

Partially stabilized sanddune

7. Un-stabilized dunes

Due to their inherent vulnerability because of lack of vegetal cover, these are quite active during summer season. The sand starts moving and engulfing the adjoining agricultural lands, engineering structures and demands immediate attention for their stabilization. The unstabilized sand dunes changes their location and shape from season to season and hence they are often called shifting dunes.

Water logging

Water logging is considered as physical deterioration of land. It is the affected by excessive ponding / logging of water for quite some period and affects the productivity of land or reduces the choice of taking crops.

8. Surface Ponding

This category addresses the water logging caused by flooding of river water, submergence by rainwater and human intervention in natural drainage systems that adversely affect the natural drainage, where the water stagnates for quite a long time. Depending the number of crops it affects it has been sub-divided into two severity classes, slight- affecting one crop and moderate – affecting more than one crop. Flooding of paddy fields is not included as it is a unique cultural practice rather than degradation of soil.

Waterlogging may be seasonal or permanent. Seasonally waterlogged areas are those low lying or depression areas that get saturated due to heavy rains and are normal in post-monsoon season. Permanent waterlogged areas are those areas where there is continuous surface ponding of water or soil profile is saturated for one or more seasons.

9. Sub-surface Water logging

If the water table is with in 2 m from the surface it adversely affects crop by virtue of saturating the root zone due to capillary rise. These areas are potential threat to get surface ponded in due course of time, if the water accumulation continues. The sub-surface waterlogged areas can be reclaimed with little ease.

10. Salinization / Alkalization

Salinization can result from improper management of canal irrigation water resulting in the rise of water table and consequent accumulation of salts in the root zone in arid, semi-arid and sub humid (dry) conditions and ingress of sea water in coastal regions and/or use of high-salt containing ground water. They also become saline when soils have developed on salt-containing parent materials or have saline ground water. The soils with EC more than 2ds/m in vertisols and >4ds/m in non-vertisols was considered as saline in the present project. Increase in soil pH beyond 8.5 results in sodicity or alkalization that result in increase of exchangeable sodium percentage in soils (> 15). Based on the type of problem, it has been divided into saline, sodic and salinesodic.

Salinity

Sodic

11. Acidification

pH is one of the most-important soil property that affects the nutrient uptake by plants and there by influencing the crop productivity. Any soil processes or management practices which lead to buildup of hydrogen cations (also called protons) in the soil will result in soil acidification. It also occurs when base cations such as Calcium, Magnesium, Potassium and Sodium are lost from the soil leading to high hydrogen ion concentration. This results in decrease of soil pH below 6.5. It occurs in laterite regions, coastal regions upon drainage or oxidation of pyrite containing soils.

If the pH is 4.5 to 5.5 then they are called *moderate* and if the pH is < 4.5,then they are mapped under *severe* category. The soils respond to lime application, which results in improvement of crop productivity.

Glacial

These are the areas under perpetual snow covered areas confined to Himalayan region. The type of degradation includes frost heaving and snow covered areas.

12. Frost Heaving

Frost heaving is defined as a process in glacial and periglacial environment where intense frost action and freezing of water evolves peculiar forms of rock, regolith and soil. The water crystallizes to ice below the surface horizon leading to micro-relief variations on the surface. This process affects the germination and root growth of several crops there by limiting the productivity of land.

13. Snow covered areas

The area covered with permanent snow cover will limit any vegetation to come up in these areas leading to a desert like conditions. These areas are generally associated with very high mountainous regions. The glacier regions are also included in this category.

Degradation due to anthropogenic factors

Human economic activities like mining, industries etc., have also contributed to decreased biological productivity, diversity and resilience of the land. Mining, brick kiln activities and industrial effluent affected areas are included under this type of degradation.

14. Industrial effluent affected areas

These are areas where the human activity is observed in the form of industry along with other supporting establishments of maintenance. Heavy metallurgical industry, thermal, cement, leather, petrochemical, engineering plants etc., are included under this. These are the lands which have been deteriorated due to large scale industrial effluent discharge. These areas are seen around urban areas and other areas where industrial activity is prominent.

15. Mining and dump areas

These are the areas subjected to removal of different earth material (both surfacial and sub-surfacial) by manual and mechanized operations. Large scale quarrying and mechanizations results in mining and mine dumps. It includes surface rocks and stone quarries, sand and gravel pits, brick kilns, etc. Mine dumps are those areas where waste debris is accumulated after extraction of required minerals. Generally these lands are confined to the surroundings of the mining area.

16. Brick kiln areas

These areas are associated with human activity and are generally seen in the vicinity of urban activity. The areas include brick kiln per se and area dugged for making bricks.

Others

Some of the degraded lands, which could not be included in the above type of land degradation, are included here. They are mass movement/ mass wastage, barren rocky / stony waste areas.

17. Mass movement/ Mass wastage

Landslide areas are mostly included under mass movement/ mass wastage type of land degradation. On sloping land when soil is saturated, the weight of the soil may exceed the forces holding the soil in place. Under such circumstances mass movement in the form of landslides or mudflows may occur. On steep slopes this mass movement may be very rapid, involving the movement of large volumes of soil, usually on an isolated event and localized basis. In geologically recent and unstable mountain areas, such as the Himalayas, and areas prone to seismic and volcanic activity, landslides may be natural phenomena. This class also includes the areas with mass wastage in terms of foothill depositions like scree and bazada zones, where the coarse material like sand and pebbles gets deposited because of erosion in upper catchment area. However, their frequency and severity may greatly increase following destruction of the natural vegetative cover by logging and/or clearing for cultivation

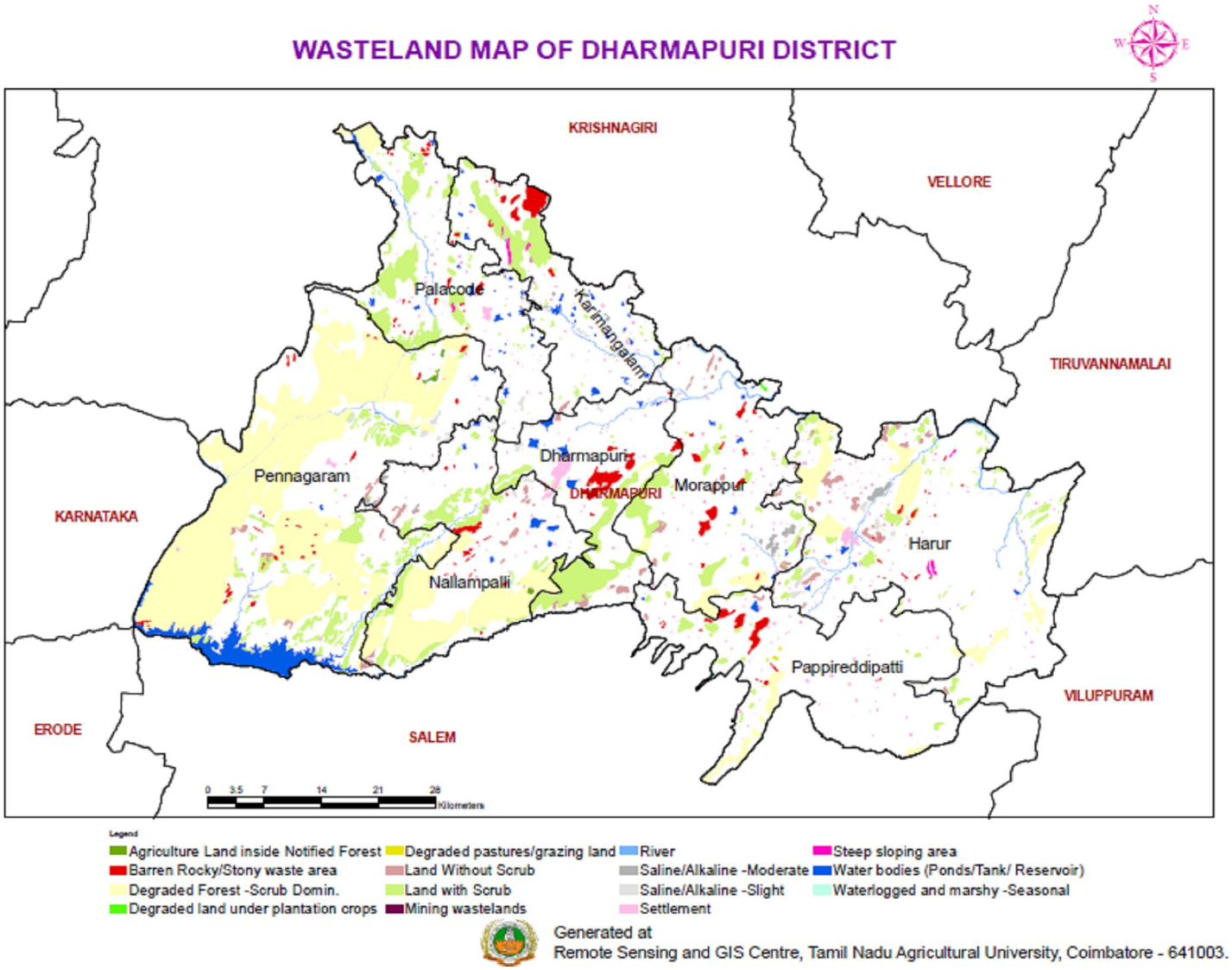
18. Barren rocky / stony areas

Barren / rocky / stony areas are the rock exposures of varying lithology often barren and devoid of soil and vegetal cover. They occur in hill forests as openings or as isolated exposures on plateau and plains. These can be easily delineated from other type of degraded land because of their severe nature of degradation and typical spectral signature.

19. Miscellaneous

This includes riverine sand areas, sea ingression areas mainly with sand deposition excluding the sandy areas of desert region.

Sea Ingress areas


WASTELAND MAP OF DHARMAPURI DISTRICT
N
W
E
S
KRISHNAGIRI
VELLORE
TIRUVANNAMALAI
KARNATAKA
ERODE
SALEM
VILUPPURAM
Palacode
Karimangalam
Dharmapuri
DHARMAPURI
Morappur
Pennagaram
Harur
Nallampalli
Pappireddipatti
0 3.5 7 14 21 28
Kilometers
Legend
Agriculture Land inside Notified Forest
Barren Rocky/Stony waste area
Degraded Forest -Scrub Domin.
Degraded land under plantation crops
Degraded pastures/grazing land
Land Without Scrub
Land with Scrub
Mining wastelands
River
Saline/Alkaline -Moderate
Saline/Alkaline -Slight
Settlement
Steep sloping area
Water bodies (Ponds/Tank/ Reservoir)
Waterlogged and marshy -Seasonal
Generated at
Remote Sensing and GIS Centre, Tamil Nadu Agricultural University, Coimbatore - 641003.

Waste Land Classification

Culturable Wastelands

Land which is capable or has the potential for the development of vegetative cover and is not being used due to different constraints of varying degrees is termed as culturable wastelands. Culturable wastelands comprise the following categories.

i. **Agricultural Land inside notified forest:** Lands put under cultivation within the restricted forest areas.

ii. ***Degraded forest – Scrub domination:*** Lands as noticed under the Forest Act and those lands with various types of forest cover, in which vegetative cover is less than 20% are classified as degraded forest land. Among the vegetative types scrubs and thorny bushes are dominated species.

iii. ***Degraded land under plantation crops:*** This includes degraded lands containing plantations inside and outside of the notified forest area.

iv. ***Degraded pastures / grazing land***: All those grazing land in non-forest areas, whether or not they are permanent pastures or meadows, which have become degraded due to lack of proper soil conservation and drainage measures fall under this category.

v. ***Gullied / ravenous land***: The gullies are formed as a result of localised surface run off affecting the friable unconsolidated material resulting in the formation of perceptible channels resulting in undulating terrain. The gullies are the first stage of excessive land dissection followed by their networking which leads to the development of ravinous land. The world 'ravine' is usually associated not with an isolated gully but a network of gullies formed generally in deep alluvium and entering nearby river flowing much lower than the surrounding table lands. The ravines then are extensive systems of gullies developed along river courses.

vi. ***Land with or without scrub***: This is the land which is generally prone to degradation and may or may not have scrub over. Such land occupies topographically high locations in the respective systems. This excludes hilly and mountainous terrain.

vii. ***Water-logged and marsh:*** Surface water-logged land is that land where the water is near the surface and water stands for most of the year. Marsh is a land which permanently or periodically inundated by water and is characterised by vegetation which includes grasses and reeds.

viii. ***Salt Affected Lands (Saline / Alkaline):*** The salt affected land is generally characterised as the land that has adverse effects on the growth of most of the plants due to the action or presence of excess soluble salts or excess exchangeable sodium. The saline soils have more of soluble salts with electrical conductivity of more than 4 dSm^{-1}. Alkali land has an exchangeable sodium percentage (ESP) of above 15 which is generally considered as the limit between normal and alkali soils. The predominant salts are carbonates and bicarbonates of sodium.

ix. ***Sands*** **:** Sandy areas are those areas which have stabilized accumulation of sand, in situ or transported, in tank / river bed, coastal, riverine or inland areas**.**

x. **Mining / industrial Waste lands**: These are lands where large-scale mining operations bring about the degradation of land and resultant mine dumps.

Unculturable Wastelands

Lands which cannot be developed for vegetative cover are defined as unculturable wastelands. Unculturable wastelands are divided into:

i. Barren rocky / stony wastes / sheet rock area.

ii. Steep sloping area - Land with very steep slopes (greater than 35 degrees); Prone to erosion and mass wasting (Landslides).

2.2.5. Rainfall and Climate

The climate of the Dharmapuri District is generally warm except in places bordering Karnataka State. The hottest period of the year is generally from the months of March to May, the highest temperature goes up to 38^{o} C in April. The Climate becomes cool in December and continuous to go up to February, touching a minimum of 17 ^{o} C in January. On an average the district receives an annual rainfall of 857 mm. The season-wise breakup for normal rainfall is furnished below, in Table 2.3.

Table 2.3. Rainfall Distribution in Dharmapuri District

S.No.	Category	Rainfall in mm
1	Winter	19.0
2	Summer	160.2
3	South West Monsoon	366.2
4	North East Monsoon	311.6
	Total	**857.0**

Dharmapuri district is benefited by Bimodal distribution of rainfall, because both the monsoons bring almost equal rainfall to the district as could be evidenced from the table, above.

2.2.6. Agriculture

The District economy is mainly agrarian in nature. Except the Hosur block, the dependence agriculture is conspicuous. Nearly 70 per cent of the workforce is dependent on agriculture and allied activities. The district is one among the most backward and drought prone areas in the state. Land brought under cultivation was 3.93 Lakh hectares constituting 40.7 per cent against the state share of 59.2 per cent. The district constitutes the major horticultural belt in the state. It accounts for 12 per cent of the area under horticulture in Tamil Nadu. Dharmapuri is one among the districts that have sizable area under floriculture. The normal area under floriculture is 1600 hectares, which constitutes nearly 10 per cent of the floriculture area in the State. Jasmine, Mullai, Rose, Crossandra, Chrysanthemum, Marigold are the flowers mainly cultivated in the district.

2.2.7. Land-use Pattern

The District accounts for 7.4 per cent of the total geographical area of the State. Of the total, 4.49 lakh hectares of land i.e., nearly 36 per cent is occupied by forest and the net sown area accounts for 34.10 per cent. The Table 2.4 given below, shows the land -use pattern of the district.

Table 2.4 Land-use Pattern of Dharmapuri District

Sl.No.	Land Classification	Area (in Hectares)	Per cent to total geographical area
1	Forest	1,63,817	36.40
2	Barren & uncultivable Land	19,648	04.40
3	Land put to non-agri Use	29,821	06.60
4	Cultivable Waste	7,326	01.60
5	Permanent pastures and Other Grazing lands	6,209	01.40
6	Land under Miscellaneous tree crops and groves (not included in Net Area Sown)	2,170	00.50
7	Current Fallow	60,589	13.50
8	Other Fallow lands	6,875	01.50
9	Net area sown	1,53,322	34.10
10	Area sown more than once	15,767	09.30
	Total geographical area	**4,49,777**	**100.00**

It could be further deserved from the table above, that the current fallow isusually quite high and this needs immediate attention.The cropping intensityworks out to 110.28 per cent only.

2.2.8. Land Holdings Distribution

The operational land holdings are relatively high in this district. The average size of holding is 1.12 hectares against the state average of 0.96 hectare. Details on land holdings are given below:

No. of holdings: 4, 42,064
Area in hectares: 4, 96,408
Average size of holding (in hectares) : 1.12

2.2.9. Irrigation

Nearly 35.3 per cent of the net sown area is irrigated against the State Level of 53.62 per cent. The wells form as the major source of irrigation, followed by tanks. Thenpennaiyar and its tributaries like Vaniar and Markandanathi irrigate part of the area in the district. The Krishnagiri reservoir is constructed across Then-pennaiyar. Though River Cauvery passes through the district, it does not aid the district in irrigation.

Of the 8 blocks in this district, 5 blocks are categorized as over exploited blocks (100 per cent extraction), 3 blocks under Critical (85-100 per cent extraction), and one as Semi Critical (60-85 per cent extraction). It reveals that the district has over exploited the ground water and it warrants the efficient use of irrigation water through improved technologies and soil and water conservation measures in the near future.

2.2.10 Cropping Pattern

The gross cultivated area in the district is about 1.7 lakh ha (2005-06) and the net cultivated area is 1.53 lakh ha (Table 4.1). The major crops grown in this district are paddy, millets, cotton, pulses and sugarcane which accounts for the major area under cultivation. The extent of cultivation under each crop is given in Table 2.5.

Table 2.5. Major Crops in Dharmapuri District

1. Area under Paddy (Hectare)	In hectare	in Percent
Sornavari / Kuruvai / Kar	2726	01.60 per cent
Samba / Thallady / Pisanam	5533	03.30 per cent
Navarai / Kodai	1206	00.70 per cent
Total	**9,465**	**05.60 per cent**
2. Millets(Ragi)	18,243	10.80 per cent
3. Other Minor Millets	69,162	40.90 per cent
4. Pulses	40,441	23.90 per cent
5. Sugar Cane	11,971	07.10 per cent
6. Mango	6,506	03.80 per cent
7. Coconut	7,037	04.20 per cent
8. Tamarind	1,197	00.70 per cent
9. Other Crops	5,067	03.00 per cent
Total Cropped area (A+B)	**1,69,089**	

Millets and other cereals is principle crop in Dharmapuri district which covers major area followed by Pulses, and Oilseeds.

Important Food Crops	Paddy, Cholam, Cumbu, Ragi, Red gram, Green gram, Black gram, Horse gram, Turmeric, Sugarcane, Mango, Banana, Tapioco, Groundnut & Gingelly
Important Non-food Crops	Cotton, Castor Seed, and Fodder Crops

The major ruling varieties in the principal crops revealed that (Table 4.2) farmers are adopting high yielding varieties such as ADT, IR and ASD in case of paddy followed by groundnut where TMV and VRI are the promising varieties and in Pulses, TMV and Vamban are the ruling varieties in this district. However, in Cotton and Maize though there are high yielding varieties are cultivated, hybrids and Bt varieties are highly adopted in this district.

Table 2.6 Major Crop Varieties in Dharmapuri District

Crop	Irrigated		Rainfed	
	HYV	Hybrid	HYV	Hybrid
Paddy	ADT 36, ADT 39, ADT 43, ADT 45, IR20, IWP, ASD-19	…..	…..	…..
Groundnut	…..	…..	TMV- 2, TMV -7, VRI - 2	…..
Maize	NK – 6240, CP – 818, Super – 900 gold, Pinnacle	…..	NK – 6240, CP – 818, Super – 900 gold	NK– 6240, CP – 818, Super– 900 gold, Pinnacle
Cotton	Surabi, MCU - 5	…..	RCH2, Rasi Excell Super	MRC6918, RCH2 – BT Rasi Excel Super
Pulses	…..	…..	TMV -1, VBN -2, VBN -3	

2.2.11. Livestock

The district has a cattle population of 3,97, 870 and provides an opportunity for the farmers to earn additional income through milk production apart from helping the farmers in the farm operations. Sheep and goat population is nearly 5.43 lakhs in the district. Employment in Animal Husbandry is mostly based on cattle rearing and farm works. Sheep rearing is the main income-oriented employment among the rural people. This yields a lumpsum short-term income to the people below poverty line. Dharmapuri district also has the poultry population of 15.5 lakh birds to serve as the alternate farm income generation activity.

2.2.12. Fisheries

The major fishery sources in the district are Nagavathi dam, Thoppaiyar dam, Vaniyar dam and Chinnar dam. The long- seasonal tanks and short- seasonal ponds in the district belong to Public Works department and panchayats. The total inland water resource in the district is 6,423 ha and among this, only 3200 ha are at present utilized for fish culture.

2.2.13. Agricultural Marketing

There are six regulated markets in the district to regulate the marketing activities of the agricultural commodities and agri-business operations. The Dharmapuri district market committee is located at Dharmapuri.

2.2.14. Transport and Communication

The district has National Highways running to a distance of 191.27 km and the following major roads *viz.*, (i) Kanniyakumari – Kashmir (NH 7) and (ii) State Highways pass through the district. At present, there are 10 railway stations in the district having a route length of 132 kms.

2.2.15. Electrification

Street lighting in rural areas is vested with the Panchayat Administration. The panchayats look after the erection of new streetlights in the hamlets, payment of current consumption charges etc., from the panchayat funds. Also the Procurement of tube lights, sodium vapor lights and other electrical appliances are also done by the concerned Panchayats. Now, solar lights are being utilized to cut down the power consumption cost. Overall, 95 per cent of the hamlets are covered under Rural Electrification. Generally power supply position in Dharmapuri District is normal. But in some areas, low voltage problem is felt, especially in the hamlets in ghat section. To minimize the current consumption charges in the Panchayats, efforts are taken to utilize solar power lights as an alternative and renewable source in Dharmapuri District.

2.2.16. Mineral Resources

Dharmapuri district is endowed with sizable reserves of granite. High quality black granite is available in Pennagaram, Harur and Palacode blocks. Quartz is available at Kendiganapalli Village of Pennagaram taluk, A.Velampatti of Harur taluk and Pethathampatti of Pappireddipatti taluk. Another High value mineral available here is Malibdinum, which is identified as a good conductor is available in Harur.

2.2.17. Education

The district has Seven colleges for arts and professional education, Five Industrial Training Institutes, 937 elementary schools, 263 middle schools, 74 high schools and 98 higher secondary schools.

2.2.18. Intra-district growth differentials

Even though Dharmapuri district is blessed with diversified resources and natural wealth, agricultural and horticultural activities are more predominant in Palacode and Karimangalam blocks, where as Pennagaram and Harur blocks are rich in mineral wealth. Harur and Pennagarm blocks also provide more forest cover to the district.

CHAPTER - III

SWOT ANALYSIS OF THE DISTRICT

3.1 Introduction

The district has its own merits and demerits in terms of resources availability and the constraints. The detailed analysis of the district in terms of Strengths, Weaknesses, Opportunities and Threats has been done and the results are given for the better understanding and easy identification of the problems and solutions.

3.2 SWOT Analysis of the District

Strengths

- Progressive nature of the faming community, which accounts for 23 per cent of the total population
- Climate and rainfall are favourable for the cultivation of a wide range of agricultural and horticultural crops
- Dairy / Sheep and Goat / Poultry industries are the promising activities in this district
- Contribution of Mango pulp industry, functioning in this district is quite impressive and which plays a vital role in the economy through export.

Weaknesses

- Resource poor farmers are more
- Fragmentation of land holdings
- Soil productivity is low due to multiple crops cultivation
- Problem soils such as salinity and alkalinity are found in this district

- Over - exploitation of ground water in almost 75-80 per cent of the blocks in the district
- Majority of the crops are grown under rainfed condition.
- Lack of awareness on the latest technologies and among the farmers

Opportunities

- Infrastructure facilities such as Transport and communication, roads are good
- The national highway connecting Chennai and Bangalore passes through the district
- Scope for further development of seed industry.
- Scope for production of milk products and selling of packaged mutton and broiler meat.
- Scope for strengthening mango processing industry

Threats

- Productivity of the crops is low.
- Higher cost of cultivation
- Almost all the blocks are experiencing agricultural labour shortage due to shifting of labour from agricultural sector to industrial sector
- Uncertainty in market prices for the farm produce
- Gambling agriculture due to low and uneven rainfall distribution.

3.2.1. SWOT Analysis of Agricultural Sector

Strengths

1. Each and every farmer are planning to allot a small area for their food and fodder need as a security for their liveli - hood
2. Soil and Agro climatic conditions of the district are suitable for growing food crops *viz.,* Paddy, Ragi & Cholam atleast in one season

Weaknesses

1. Not remunerative to the farmers due to conventional method of cultivation
2. B: C ratio is less than one
3. Labour consuming
4. Availability of organic manure is less, which leads to the reduction in yield.
5. Lack of knowledge on advanced technologies.

Opportunities

1. Paddy Productivity could be increased considerably
2. There is a scope for increasing ragi productivity
3. Nearness and easy reach to Bangalore city also provides good market demand

Threats

1. Food security
2. Food grain production to meet the demand of increased population
3. Non - availability of improved seeds in time

4. Risk due to natural calamity
5. Outbreak of of pests and Diseases
6. Non - availability and increased cost of labour

3.2.2. SWOT Analysis of Horticultural Sector

Following are the results of the SWOT analysis of the horticultural sector.

Strengths

1) Soil and agro - climatic conditions are suitable for growing horticultural crops
2) Private nurseries are supplying the seedlings through out the year
3) Even resource poor and small farmers are willing to grow horticultural crops on a limited area
4) Ready local markets are available in and around the villages, like shandy etc.

Weaknesses

1) Lack of knowledge on improved technology
2) Requires more labour for harvest
3) Inadequate supply of seeds and seedlings in remote village on time
4) Poor soil management
5) High price fluctuations and the middlemen intrusion reduce the profit of the farmers

Opportunities

1) Providing suitable technological information to the farmers for better production.
2) Encouraging the farmers to conserve the soil moisture by the application of enriched FYM, Vermicompost or Coir pith Compost etc.,
3) Providing quality seeds and seedlings on time to the farmers
4) Encouraging the farmers cluster approach for fruit and vegetable production for good market sale.
5) Training to the farmers on modern cultivation methods.

Threats

1) Non-availability of farm labourers
2) Transport from remote village to the market area is a problem
3) Risk due to price fluctuations
4) Seasonal vagaries of the monsoons
5) Poor credit facilities

3.2.3. SWOT Analysis of Animal Husbandry Sector

Dairy Sub-sector

Strengths

a) High population of cross bred cows
b) Annual compound growth rate of 13 per cent milk production.
c) Existence of 19 organized private dairies.
d) Eagerness of about 10943 self - help groups on Veterinary and dairy activities.

e) Availability of 196 Insemination centres.

f) Fairly good conception rate (41.6 per cent for cross bred cows and 35.7 per cent for Buffaloes).

Weaknesses

a) Green fodder and Dry fodder deficiency of 91 per cent and 27.2 per cent respectively.

b) Animals over dependence on crop residues and concentrate feed (Annual concentrate feed requirement is 4.10 lakh tone)

c) High morbidity and mortality in cross bred due to FMD.

d) Non-availability of fodder seeds.

e) Requirement of seed – Annual for dry land : 221 tons
Stem cuttings for irrigated land : 136 million
Perennial for irrigated land : 22.78 tons

f) Lack of timely inseminations due to insufficient inseminators. (0.78 / 1000 number as against 1/1000 required)

g) Insufficient technical man power to provide Animal health care (0.38/ 5000 as against the requirement of 1/5000)

Opportunities

a) Improvement of permanent grazing lands in to mixed pasture.

b) Judicial utilization of crop residues to feed liverstock.

c) Improving nutrient utilization from the fodder.

d) Improving the annual profit vis a vis production potential of livestock.

e) Encouraging fodder production by private entrepreneurs.

f) Providing information resource on livestock for better trading.

g) Encouraging establishment of quality germplasm production centres by private sectors.

Threats

a) Non- availability of farm labourers.

b) Continuous drought and natural calamities and the presence of fear on earth quacks.

c) Poor quality of milk.

B. Small Ruminants Sub-sector

Strengths

a) High demand for meat from small ruminants, with shortage of 135T (Dharmapuri,) 163 T (Krishnagiri), 315T (Salem) and 156T (Namakkal)

b) Low input, High return (Cost benefit ratio – 2.20 to 3.60)

c) Adopted for draught prone conditions.

Weaknesses

a) Inadequate grazing facilities.

b) Inadequate reach of vaccinations and deworming drugs to remote villages.

c) Subsistence system of farming and non application of scientific intervention.

d) Non-availability of quality breeding stock.

e) Un-hygienic slaughter houses. The district of Dharmapuri, Krishnagiri, Namakkal and Salem respectively have 2, 1, 10 and 2 registered slaughter houses only and 2100, 1500, 3300 and 17000 small ruminants respectively are slaughtered annually.

f) Poor credit support.

g) All the 60 Sheep societies in Dharmapuri are defunct.

Opportunities

a) Intensive farming system with low labour input.

b) Limited number of sheep Self Help Group members may be encouraged for stall rearing of goats

c) Cross breeding with tropical meat type breed.

Threats

a) Dwindling population of sheep.

b) High kid / lamb mortality.

c) Farmers desisted from sheep farming.

d) Non- availability of vaccine for disease like blue tongue.

C. Poultry Sub-sector

Strengths

a) Newly emerging enterprise among farmers.

b) Provide subsistence income to resource poor.

c) Ready market for poultry meat in Tamil Nadu and Bangalore.

Weaknesses

a) High content of Phosphorous in water.

b) High cost of Land.

c) Reduced interest of farmers in farming system.

Opportunities

a) Introduction of other poultry quails and ratiles like Emu.

Threats

a) Being the border district outbreak of disease across the border**.**

3.2.4. SWOT Analysis of Sericulture

Strengths

- Sericulture is practiced as an agro-industry in Dharmapuri District
- Cocoon markets are available at Dharmapuri, Pennagaram and Palacode.
- Grainages are also available at four places in Dharmapuri District ie., Sithari, Papparapatty, Dharmapuri & at Pennagaram.
- One or two reeling units are functioning in this District
- The raw silk produced in this District is mostly marketed through silk exchange at Kanchipuram.

Weaknesses

- Lack of awareness among the farmers.
- Labour- intensive
- Farmers cultivating traditional varieties of Mulberry
- Constant observation & maintenance are needed.
- Price fluctuation

Opportunities

- Training and demo to the farmers to teach advanced Technologies
- Use of machineries for cutting mulberry stalks
- Adoption of drip irrigation
- Giving 90 per cent subsidy for mulberry seedlings and improved eggs.

Threats

- Non - availability of labour
- Risk due to natural calamities & sudden pest & disease outbreak
- Water scarcity
- Poor infrastructure facilities
- Less credit facilities which reduce the purchasing power

3.2.5 . SWOT Analysis of Public Works Department

Strengths

- Dharmapuri District is having about 6 reservoirs with 227 Km lengths of canals**.**
- More than 1000 tanks are available for irrigation.
- About 75,673 wells are used for irrigation.

Weaknesses

- The canals are silted and bunds are weak.
- Underground water has gone down.
- The tanks are not linked with each other.

Opportunities

- Reservoirs / Dam and canals to be desilted.
- Canals to be desilted.
- Check dams may be constructed wherever possible.
- In rural tanks, feeder channels to be lined with cement/concrete.
- Loans may be provided to sink community wells @ 1/20 ha.

Threats

- Quick silting
- Breaching of channel bunds
- Uncertain and insufficient rainfall

3.2.6. SWOT Analysis of Forestry

Strengths

- 35 per cent of the Geographical area of Dharmapuri District is under forests
- The landscape is such that all the precipitation can be harvested
- There are 312 villages abetting the forest areas

Weaknesses

- Inadequacy of water for farming leads to rearing of unproductive cattle for livelihood, leading to uncontrollable grazing and browsing which cause destruction of forest

- Economic weakness of the village community forcing them to switch over to unlawful activities like illicit arrack distillation etc., and their consequences

- Migration to neigh - boring states in search of employment for their livelihood, because of the non-availability of employment opportunities and unfavorable agricultural conditions.

Opportunities

- Availability of abundant forest areas to harvest maximum precipitation, facilitating ground water recharge for optimum agriculture.
- Generation of employment locally, which will prevent migration.
- Economic and social upliftment of the weaker sections there by the possibilities of dispensing with the unlawful activities.

Threats

- Unfavorable climatic conditions.
- Deterioration of the Forest wealth
- Social backwardness.
- Un-employment/ under-employment leading the rural youth towards anti - social activities.

3.3. Accommodating SWOT

In order to ensure Four per cent overall growth in the agricultural growth of the district during XI plan period, the opportunities identified are given adequate care in preparing the project proposals in agriculture and agri-allied sectors in this district. At the same time, enhancing the strengths of the potential sectors further by adopting the recent technologies and ensuring maximum budget to mitigate the weaknesses and threats that are to be encountered in future and to stabilize the agricultural growth of the district are also taken care of.

3.4. Sector/ Regional Growth Drivers

Composite Index of Agricultural Development of Dharmapuri 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 per cent 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 i^{th} development indicator for the d^{th} district (i = 1,2,3 … m, d = 1,2,3…n). First these values of development indicators for each district is 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 $Max\ X_{id}$ are the minimum and maximum of $(X_{i1}, X_{i2}, ...X_{in})$ respectively. When the values of X_{id} are negatively related to the development (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. These 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 Dharmapuri district is taken from various government publications like Season and Crops Report and Economic Appraisal of Tamil Nadu for Four periods 1990-91, 1995-96, 2000-01 and 2005-06. In all, 25 indicators of agricultural development as given in Table 3.1 are used for estimating the composite index of development for the district. The 25 indicators were grouped into 6 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 Dharmapuri district (Table 3.2) which was classified as 'backward' in agricultural development during 90-91 and 2000-01 and became 'very backward' in agriculture during 1995-96 and during 2005-06 it was classified as 'developing'. In terms of overall agricultural development, its rank among the 29 districts of Tamil Nadu varied from 15 to 25 during the 1990-91 to 2005-06. As far as the individual components of agricultural development are concerned, its rank in the above periods are summarized in Table 3.2. The table shows that except in cultivators and labourers, in all other components, its performance in the period of study is not satisfactory. For example, in irrigation its rank is between 21 and 24 in all the four periods. Similarly in livestock also, it ranked between 9^{th} and 27^{th} ranks.

Table 3.1 Selected Indicators of Agricultural Development for Dharmapuri District

Component	Indicators	No. of Indicators
Crop-Area-Variables	Cropping Intensity	10
	Per cent of Gross Cropped Area to Total geographical area	
	Per cent Share of foodgrains to Gross Cropped Area	
	Per cent Share of foodcrops to Gross Cropped Area	
	Per cent Share of non foodcrops to Gross Cropped Area	
	Per cent Share of cultivable waste to total geographical area	
	Per cent Area under High Yielding Variety-PADDY	
	Per cent Area under High Yielding Variety-CHOLAM	
	Per cent Area under High Yielding Variety-CUMBU	
	Per cent Area under High Yielding Variety-RAGI	
Irrigation	Irrigation Intensity	7
	Per cent of Gross Irrigated Area to Gross Cropped Area	
	Per cent of Net Irrigated Area to net area sown	
	Per cent Area under Canal Irrigation to Gross Irrigated Area	
	Per cent Area under Tank Irrigation to Gross Irrigated Area	
	Per cent Area under Well Irrigation to Gross Irrigated Area	
	Per cent 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	Per cent of Cultivators to total population	2
	Per cent of Agri.labourers to total workers	
	Total	**25**

Table 3.2 Rank of Dharmapuri 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	18	23	14	-	-	1	19
	1995-96	20	24	26	21	28	3	25
	2000-01	16	23	27	25	25	1	19
	2005-06	8	21	9	20	25	2	15

CHAPTER - IV

DEVELOPMENT OF AGRICULTURAL SECTOR

4.1 Introduction

Based on the resource potential rewieved in chapter II and the SWOT analysis in chapter III, the issues that require development efforts have been identical and listed in this chapter. The ongoing programmes have been listed in the second section of this chapter.The yield gaps in major crops and the constraints have been assessed in section three. In the fourth section the needed development interventions have been putforth.

4.2 Development Issues

- Sizable wastelands are available in the district and hence waste land development is needed
- The current fallow is almost one third of the net-sown area and hence the ways and means of reducing the extent of current fallows require immediate attention
- The fertility status of the soils are average and hence requires effective soil health management measures.
- Mostly the seeds and fertilizers are applied more than the recommended levels invariably for all the agricultural and horticultural crops. But minimum care has been taken for the application of plant protection chemicals.
- Use of farm implements and farm equipments are very limited because of small size of land holdings. Only for the preparatory cultivation and transportation of the harvested produce, tractors are used. Recently paddy harvesters are used for harvesting the crop. With the undulated topography, there is an ample scope for using micro irrigation devices.
- Productivity increase in major crops requires further attention

4.3. Special Projects / Programmes On-going in the District

The ongoing programmes with reference to Agricultural development are given in Table 4.3. Integrated Scheme for Oilseeds, Pulses, Oilpalm, and Maize (ISOPOM), Technology Mission Mode Scheme, Macro Management Mode Schemes, Coconut Development Board Schemes, Seed Village Scheme are the on going schemes in the district. The scheme wise budgetary details are furnished below in Table 4.1.

Table 4.1 Ongoing Schemes and Interventions in Agriculture

ABSTRACT

Sl. No	SCHEMES	Sanctioned Amount	RE	Expenditure	Per cent of Achievement
	STATE SCHEMES				
A	I. Part I Schemes	87.68	87.68	86.94	99
	II. Part II Schemes	0.00	0.00	0.00	
	Total	**87.68**	**87.68**	**86.94**	**99**
B	**SCHEMES SHARED BETWEEN CENTRE AND STATE**				
1	Integrated Scheme for Oilseeds, Pulses, Oilpalm and Maize (ISOPOM) (75:25)	79.77	79.77	78.88	99
2	Technology Mission Mode Scheme (75:25)	28.19	28.19	28.17	100
3	Macro Management Mode Schemes (90:10)	12.87	12.87	12.83	100
4	Coconut Development Board Schemes (50:50)	7.57	7.57	7.57	100
5	Seed Village Scheme.	10.00	10.00	4.42	44
	Total	**138.41**	**138.41**	**131.88**	**95**
	Grand Total (A + B)	**226.09**	**226.09**	**218.83**	**97**

4.4 Constraint Analysis

The details on the potential and actual yields obtained and the yield gaps in the major crops grown in the district are presented below, in Table 4.2.

Table 4.2. Extent of Yield Gap in Major Crops

S.No.	Crop	Potential Yield (kg/ha)	Actual Yield (kg/ha)	Yield gap (kg/ha)
1.	Paddy	6992	5909	1083
2.	Maize	6000	5000	1000
3.	Pulses	700	600	100
4.	Cotton	1800	1600	200
5.	Sugarcane	140000	129000	11000

The extent of the yield gaps given in Table 4.4 indicate the need for narrowing the gap between potential and actual yields for the major crops of the district.

4.5. Recommended Interventions for the District, with detailed Action Plan with Costs & Reporting

The detailed programmes proposed under NADP with physical and financial requirements are provided in Chapter VI. After completion of the project implementation, yearwise evaluation will be made by monitoring and evaluation wing and the report will be submitted every year. The major thrust will be on the following issues.

a) Waste land development measures may be encouraged with technology and credit facilities,both under public and private sectors

b) Farmer education through the establishment of model farms to demonstrate the latest technologies.

c) Wherever possible, the watre harvesting measures and water conservation methods may be taken up to increase area under irigation.

d) Tapping of ground water potentials in the possible areas alos merit consideration in the development plan.

e) The productivity increase in food crops like paddy, ragi and oilseeds through the application of latest technologies.

f) As dharmapuri district is one of the water starved districts in the state, the effective and economic use of water for perennial horticultural crops is an important development issue, merit immediate development effort.

g) There is vast scope for improvingthe productivity and hence the production of horticultural crops in the district,as there is really domestic and export market demand. The institutional support like Horticulture zone also facilitates the process of boosting horti-production.

h) Horticultural products based agro-processing enterprises may have the potential for vast developmemt in the district

i) Organic farming is yet another important issue that merit consideration in the development process.

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CHAPTER - V

DEVELOPMENT OF ALLIED SECTOR

5.1 Introduction

Agriculture is the major profession in Dharmapuri district, which supports 70 per cent of population. The growth of these sectors is virtually important to provide food security and sustainability through increasing employment opportunity to the rural people in the district. The growth of allied agricultural activities will also ensure the overall economic development of the district.

In this chapter, the development issues, the on-going projects, constraints and nature of interventions needed under each of the allied sectors based on the resource – base and SWOC analysis are dealt with.

5.2 Horticulture Sector

Dharmapuri district is endowed with plenty of horticultural wealth *viz.*, mango, banana, tomato, brinjal, turmeric, tamarind, jasmine, chrysanthemum, rose etc. Through NADP, it can be further strengthened to tap its full potential.

5.2.1. Developmental Issues

The major development issues relating to horticulture sector are:

5.2.2. On going Schemes

National Horticultural Mission, Precision farming, Integrated Tribal Development Programme are some of the on going schemes for safeguarding the interests of horticultural farmers. The details are presented in the following Tables 5.1, 5.2 & 5.3.

Table 5.1 National Horticulture Mission 2008-09

				FINANCIAL: Rs. In Lakhs	
1	**Production of Planting Material**	**Units**	**Phy**	**Fin**	
	(a) Private Sector				
	Model nursery (4 Ha) @ Rs.18 Lakhs/No.	No.	8	144.000	1800000
2	**Establishment of new gardens(ha).**				
	i. Fruits (perennials) @ Rs.11250/Ha	Ha.			
	Mango		1000	112.500	11250
	Aonla		100	11.250	11250
	ii. Fruits (Non – Perennials) (Banana) @ Rs.7500/Ha	Ha.	375	28.125	7500
	II Year maintenance perennial @Rs.4500/Ha	Ha.	2690	121.050	4500
	III Year maintenance perennial @Rs.6750/Ha	Ha.	210	14.175	6750
	II Year maintenance Non perennial @Rs.3000/Ha	Ha.	300	9.000	3000
	III Year maintenance Non perennial @Rs.4500/Ha	Ha.	100	4.500	4500
3	**Flowers**				
	(A) Cut Flowers				
	a. Small & Marginal Farmers @Rs.35000/Ha	Ha.	25	8.750	35000
	(B) Bulbous Flowers				
	a. Small & Marginal Farmers @Rs.45000/Ha	Ha.	200	90.000	45000
	© Loose Flowers				
	a. Small & Marginal Farmers @Rs.12000/Ha	Ha.	250	30.000	12000
4	**Spices – Turmeric @ Rs.11250/Ha**	Ha.	650	73.125	11250
	Chilles @ Rs.11250/Ha	Ha.	200	22.500	11250
	Aromatic Plants @ Rs.11250/Ha	Ha.	100	11.250	11250
	Medicinal Plants @ Rs.11250/Ha	Ha.	50	5.625	11250

Table 5.1 Contd…

	FINANCIAL: Rs. in Lakhs				
5	**Plantation crops including coastal horticulture**				
	Cocoa @Rs.5625/Ha	Ha.	100	5.625	5625
	Cocoa II nd Year @ Rs.2250/Ha	Ha.	25	0.563	2250
6	**Rejuvenation/ replacement of senile plantation @Rs.15000/Ha**	Ha.	400	60.000	15000
7	**Creation of water resources @ Rs.10 Lakhs/No.**	No.	5	50.000	1000000
8	**Protected Cultivation Green House (Hitech)**				
	a. Small & Marginal Farmers @ Rs.325/Sq.m	Sq.m	9000	29.250	325
	b. Shade Net @ Rs.7/Sq.m	Sq.m	20000	1.400	7
9	**Promotion of INM/IPM Rs.100/Ha.**	Ha.	800	8.000	1000
10	**Organic Farming**				
	1. Adoption of organic farming @ Rs.10000/Ha	Ha.	75	7.500	10000
11	**Vermi compost units @Rs.30000/Ha**	No.	40	12.000	30000
12	**Pollination support through beekeeping**				
	a. Distribution of colonies with hives @ Rs.800/No.	No.	80	0.640	800
	Grand Total			**860.828**	

Table 5.2 Integrated Tribal Development Programme 2008-09

Sl. No.	Details	Unit	Physical	Financial (Rs.in Lakhs)
			Target	Target
1	Establishment of Individual Orchards 75 per cent subsidy (0.40 Ha) / Farm family (including Transport)	Nos	150	2.175
2	Distribution of High/ Hybrid Vegetable Seeds 90 per cent subsidy to maximum of Rs.500/-Farm family of 0.40 Ha	Nos	150	0.75
3	Horticulture Training Rs.100/Trainee/day for two days	Nos	100	0.2
4	Horticulture Tour @Rs.1500/Farmer	Nos	12	0.18
5	Distribution of 7.50 HP Oil Engine/ Subsidy limited to Rs.11250/No/Farmer	Nos	2	0.225
6	Distribution of Power Sprayer 75 per cent Subsidy limited to Rs.3750/No	Nos	7	0.2625
7	Installation of Drip Irrigation 90 per cent subsidy limited to Rs.12000 not exceeding 0.40 Ha	Ha	2	0.6
	Total		**423**	**4.393**

Table 5.3 Integrated Horticulture Development Scheme

S. No	Name of the component	Target							
		Gen		SC		ST		Total	
		Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin
1	Fruits	-	-	-	-	-	-	-	-
2	Vegetables	115	5.925	20	1.155	8	0.096	143	7.176
3	Flowers	-	-	-	-	-	-	-	-
4	Spices	10	0.562	8	0.45	-	-	18	1.012
5	Plantation Crops	-	-	-	-	-	-	-	-
6	Others	-	0.121	-	-	-	-	-	0.121
	Total	**125**	**6.608**	**28**	**1.605**	**8**	**0.096**	**161**	**8.309**

5.2.3. Constraints

i. Inputs are not available in time.

ii. Farmers are unaware of recent technologies

iii. Inadequate credit facilities

iv. Inadequate cold storage facilities

5.2.4 Possible Interventions

i. More rural godown and cold storage facilities may be created in the potential areas to avoid distress sales.

ii. Bank should identify suitable entrepreneurs and provide credit for creations of storage facility.

iii. Department of Horticulture has to guide the farmers in availing the loan facilities from NHB and NHM.

iv. The technology adoption under precision farming project needs to be popularized on a large scale.

v. Agro - processing units may be developed.

The ongoing schemes for horticultural sector

5.2.5 Recommended Interventions for the District, with detailed Action Plan with Costs & Reporting

The detailed programmes proposed under NADP with physical and financial requirements are provided in Chapter VI. After completion of the project implementation, year wise evaluation will be made by monitoring and evaluation wing and the report will be submitted every year.

5.3. Animal Husbandry Sector

The district has a cattle population of 3,97, 870 and provides an opportunity for the farmers to earn additional income through milk production apart from helping the farmers in the farm operations. Sheep and goat population accounts for nearly 5.43 lakh animals in this district. Employment in Animal Husbandry is mostly based on cattle rearing and farm works. Sheep rearing is the main income oriented employment among the rural people. This yields a lumpsum short-term income to the people below poverty line. Dharmapuri district also has the poultry population of 15.5 lakh birds to serve as the alternate farm income generation activities.

5.3.1. Development Issues

- Supply of quality milch animals with quality feeds may be provided to the stakeholders.
- Shortage of green fodder requirement may be met with suitable cropping system like silvipastoral, hortipastoral, Agripastoral systems and other Integrated farming systems.
- More veterinary centres may be established for cattle health care in rural areas.
- Banks to participate actively in broiler cluster promotion in Pennagaram, Nallampally and Dharmapuri blocks.
- Slatted floor goat rearing may be encouraged in the rural areas.
- Poultry rearing in cage system may be encouraged.
- Fish seed farm may be developed at panjapalli, Vaniyaru dam areas and Hogenakkal falls area.

5.3.2. Ongoing Schemes

The ongoing schemes in animal husbandry sector is given in Tables 5.4 for perusal.

Table 5.4 On going Schemes in Animal Husbandry

S.No	Name of Scheme	Area/ No.	Budget
1	Live stock Protection Project	119	142800
2	ASCAD - Assisting to the State for control of Animal Diseases (Foot & Mouth Vaccination)	3,50,000	-

5.3.3. Constraints

i. Improper attention to milch animals

ii. Poor preventive care in the outbreak of pests and diseases**.**

iii. Deficit of fodder for dairy animals

iv. Unhygienic maintenance of backyard birds and animals.

5.3.4 Interventions

- Increasing efficiency of nutrient utilization
- Effective utilization of other fodder resources
- Increasing productivity by mineral supplements
- Reducing milking time and cost on milk processing
- Providing information resource and capacity building
- Providing fool proof and timely health cover

1.4. Fisheries Sector

Dharmapuri is inland district and hence it has inland fishery resource base. Out of 642 ha of water resource spread area,only 3200 ha is utilized at present for fish culture.

1.4.1. Development Issues

- The present fish production in the district is only 1100 tonnes against a potential of 3230 tones and hence needs further tapping.
- The long seasonal tanks and short seasonal ponds does not have adequate water throughout the year and hence only short term fish culture can be carried out in these water bodies.
- The seed production is only 9.50 lakhs against the requirement of 25.69 lakhs at present and hence the need for manifold increase in fish seed production
- The Government fish seed farm located in Chinnar and Hogainakkal are the only fish rearing centers in the district and most of the areas are under repair condition and needs to be repaired and renovated
- The seed produced through the fish seed farm is not sufficient to stock all the water bodies
- There is no private farmer involved in seed production
- Fish culture is not taken up by fish farmers in a large way
- The fishing crafts and gears used are not efficient to catch fish from deep waters and in rivers
- Lack of infrastructure for post - harvest handling and storage of fish
- Lack of ice plant and adequate ice in the region for chilling of fish
- Lack of processing facility in the region
- Lack of cold storage facility for storage of excess catch
- There is no sufficient insulated vehicle for transportation of fish in chilled condition

- Lack of adequate scientific knowledge among the fishermen in fishery management
- Insufficient training packages on fish culture, fish seed production, fish feed formulation and post harvest handling and processing of fish, value addition to fish products, etc.

5.4.2. Gaps Identified

- Part of the district does not have water facility throughout the year hence only short term fish culture can be carried out.
- No self - sufficiency in fish seed production.
- Repairing and renovating existing fish seed farms at Chinnar and Hoggenakkal
- Creation of additional nursery space at Hoggenakkal and Chinnar
- Infrastructure development in post harvest lacking.
- Lack of efficient fishing gears for operation in deep waters.
- Insufficient training packages on fish culture, breeding and seed rearing, feed formulation fish diseases diagnosis, etc.

5.4.3.Key Areas of Intervention for Fisheries Development in the District

- Increase the fish seed production by strengthening of Government fish seed farms by repair and renovation and by creating additional nursery space
- Encouraging private participation in fish seed production by extending 50per cent subsidy to the farmers

- Rearing of seeds in cages through private participation by extending 90 per cent subsidy
- Supply of quality fish seeds under subsidized cost to fish farmers to increase fish production
- Stocking of long seasonal tanks and short seasonal ponds with quality fish seeds in subsidized rate
- Encouraging private farmers in fish farming by extending subsidy to increase fish production
- Promotion of murrel culture in irrigational wells by supplying seeds at subsidized rates
- Establishment of ornamental fish culture and breeding units through private participation by extending 90 per cent subsidy
- Provision of ice making units in fish landing and marketing centers with 90 per cent subsidy
- Provision of insulated ice boxes for storage of fish with 90 per cent subsidy
- Provision of insulated vehicle at 100per cent grant to the Fishermen cooperative marketing society
- Provision of mopeds with ice boxes for transportation of fish with 50 per cent subsidy
- Establishment of modern fish stalls in major towns in the district
- Supply of modern fishing crafts and gears for operation in deep inland water bodies and rivers with 90 per cent subsidy
- Training of fishermen in better fisheries management

5.4.4. Recommended Interventions for the district, with detailed Action Plan with Costs & Reporting

The detailed programmes proposed under NADP with physical and financial requirements are provided in Chapter VI. After completion of the project implementation, year wise evaluation will be made by monitoring and evaluation wing and the report will be submitted every year.

5.5 Agricultural Engineering Sector

By resorting to suitable interventions like introduction of newly developed agricultural machinery / implements and popularizing the existing machinery / implements by way of supplying them to the farming community at subsidized rates, more agriculturists can be made to understand the benefits / merits of using the machinery / implements thereby leading to the continuous adoption of mechanized farming in the long run.

5.5.1 .Development Issues

a) Suitable rain harvesting structures to be developed to increase ground water potential / recharge.

b) Minor and medium level check dams may be constructed in water shed areas.

c) Land levelling/ Compartmental bunding and terracing may be encouraged to conserve soil and water.

d) The TNHB may speedup its programmes for energising Agricultural pumpsets and converting oil engines into electrical motors or diesel quota in subsidy rates may be provided.

5.5.2 On-going Schemes

The on - going scheme activities in the agricultural engineering sector is given in Table 5.5. Land development scheme, rain water harvesting structures, agricultural mechanization are some of the important on going schemes.

Table 5.5 On going Schemes in Agricultural Engineering 2007-08

Sl. No.	Name of the Scheme	Annual Target		Achievement	
		Physical	**Financial**	**Physical**	**Financial**
1	Land Development Scheme				
i)	Bull dozers - 3 Nos.	3300 Hrs.	..	3201 Hrs.	..
ii)	Tractor - 2 Nos.	1100 Hrs.	..	1028 Hrs.	..
2	Minor Irrigation Scheme				
i)	Rock Blasting Units	300 Blasts	..	304 Blasts.	..
ii)	Replacement of Old Pump sets				
a)	Others				
	Below 5 HP	46		59	2.360
	Above 5 HP	1020	63.450	1001	61.090
		1066	**63.450**	**1060**	**63.450**
b)	Special Component				
	Below 5 HP	0		1	0.05
	Above 5 HP	50	3.600	47	3.525
		50	**3.600**	**48**	**3.575**
	Grand Total	**1116**	**67.05**	**1108**	**67.025**
3	Integrated Tribal Development Programme				
a)	Contour Stone wall	80.00.0	12.00	80.15.5	12.00
b)	Land Shaping	15.00.0	1.50	15.10.0	1.50
c)	Pipe Laying	15.00.0	1.50	15.25.0	1.50
d)	Minor Check dam	2	1.00	2	1.00
e)	Major Check Dam	3	3.00	3	3.00
	TOTAL	**110.00.0**	**19.00**	**110.50.5**	**19.00**

Table 5.5 Contd….

Sl. No.	Name of the Scheme	Annual Target		Achievement	
		Physical	**Financial**	**Physical**	**Financial**
4	Rain Water Harvesting Structures				
a)	Minor Check dam	20	5.000	20	4.997
b)	Medium Check dam	15	7.500	15	7.480
c)	Major Check Dam	14	14.000	14	13.980
d)	Percolation Pond	5	15.000	5	14.999
e)	Rejuvanation of Wells	4	1.040	4	1.040
f)	Farm Pond/Sunken Pond	8	3.200	8	3.190
g)	New Village Tank or Ooranies	8	12.000	8	11.999
	TOTAL	**74**	**57.740**	**74**	**57.685**
5	Agricultural Mechanization				
a)	Tractor upto 35 HP	37	11.100	37	11.100
b)	Power Tiller	34	9.890	34	9.890
c)	Rotavator	25	4.990	25	4.990
	TOTAL	**96**	**25.980**	**96**	**25.980**
6	Agricultural Mechanization Demonstration				
a)	Rotavator	8	0.200	8	0.200
b)	Disc Plough	8	0.200	8	0.200
c)	Rotavator with Quick fit Gauge wheel	8	0.200	8	0.200
d)	Seed Drill	4	0.100	4	0.100
e)	Hose Hole Digger	1	0.025	1	0.025
f)	Chisel Plough	1	0.025	1	0.025
	TOTAL	**30**	**0.750**	**30**	**0.750**

Table 5.5 Contd….

Sl. No.	Name of the Scheme	Annual Target		Achievement	
		Physical	**Financial**	**Physical**	**Financial**
7	Agricultural Machineries Farmers Training	3	0.750	3	0.750
8	National Agricultural Development Programme				
	Mechanization (Rotavator)	5	1.125	5	1.020
	Farm Pond (unlined)	2	1.000	2	0.900
	TOTAL	**7**	**2.125**	**7**	**1.920**
9	2 Acre Waste Land Development Programme				
a)	Phase-I	108.25	2.633	108.25	2.633
b)	Phase-II	407.81	9.190	407.81	9.190
c)	Phase-III	620.02	16.120	620.02	7.938
d)	Phase-IV	386.00	10.030	386.00	0.480
e)	Phase-V	42.11	1.090	42.11	0.000
f)	Phase-VI	800.00	-	-	-
	TOTAL	**2364.19**	**39.063**	**1564.19**	**20.241**
10	National Horticulture Mission	9 Nos.	36.98	4 Nos.	14.24

5.5.3. Constraints

i. Undulated topography of the district

ii. High cost of farm implements

iii. Lack of awareness among the farmers about new tools & implements.

5.5.4. Possible Interventions

i. Farmers particularly small and marginal farmers may be encouraged to form FIG and to takeup Co operative / collective farming which may enhance the scope for Farm Mechanisation

ii. Banks may finance for Agri- clinics, Agribusiness centres, farm machinery service centres and to integrate market information system.

iii. Latest farm machineries, equipments /implements to be provided in subsidy rates to the farmers.

iv. Mechanized village concept for the possible crops may be developed in each and every crop in the district.

5.5.5 Recommended Interventions for the District, with detailed Action Plan with Costs & Reporting

The detailed programmes proposed under NADP with physical and financial requirements are provided in Chapter VI. After completion of the project implementation, year wise evaluation will be made by monitoring and evaluation wing and the report will be submitted every year.

5.6 Agricultural Marketing Sector

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 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.

5.6.1 Interventions in Agricultural Marketing / Agri Business

i. Marketing of Agricultural commodities and perishable Horticultural commodities with remunerative price is a major challenge for the farmers/ producers at Dharmapuri district.

ii. It is essential to develop product specific marketing Infrastructure and also safe and scientific storage methods.

iii. Construction of cold storage units/Rural godowns at potential areas.

iv. Developing auction centres, Uzhavar shandy at rural level and mega Uzhavar shandy at district level.

v. Encourging contract farming wherever needed.

vi. Increasing sale through regulated market.

vii. Identifying export promotion opportunities and improving sales

5.6.2 Recommended Interventions for the District, with detailed Action Plan with Costs & Reporting

The detailed programmes proposed under NADP with physical and financial requirements are provided in Chapter VI. After completion of the project implementation, year wise evaluation will be made by monitoring and evaluation wing and the report will be submitted every year.

5.7 Sericulture Sector

Sericulture plays an important role in the economy of Dharmapuri District. The District ranks first in the state cultivation of mulbery and production of Cocoons. Area under Mulberry during 2000-01 was 16,154.60 Acres accounting for over 75 per cent State area under mulberry and cocoon production stood at 36.03 tonnes valued Rs.4229.92 Lakhs.

5.7.1. Developmental Issues

Strengtheneing the support extended to sericulture farmers and providing quality seed material for rearing the silk worms.

5.7.2. Constraints

i. Following the conventional practices of sericulture
ii. Unfavourable climatic conditions
iii. Poor post- cocoon practices

5.7.3 Interventions

a) Silkworm rearing is a flourishing industry in Dharmapuri district.

b) Banks should enhance the credit facilities to the silkworm rearing farmers.

c) The Sericulture department has to motivate the small and medium farmers to take up improved methods of silkworm rearing by chawki rearing, shoot rearing under drip system and guide them to avail the credit supports.

d) Rearing of both bivoltine and cross breed races of Silkworm may be introduced. New mulberry varieties / hybrids may be introduced / supplied to the farmers.

e) The post cocoon activities like reeling, rereeling, twisting, weeving and fabric manufacturing can be takenup in the district.

5.7.4 Recommended Interventions for the District, with detailed Action Plan with Costs & Reporting

The detailed programmes proposed under NADP with physical and financial requirements are provided in Chapter VI. After completion of the project implementation, year wise evaluation will be made by monitoring and evaluation wing and the report will be submitted every year.

5.8. Irrigation Sector (PWD)

The Public Works Department and Panchayat union tanks, ponds and supply channels play an important role in the irrigation of Dharmapuri district. But they have to be desilted and strengthened periodically to serve their purpose. New check dams and flood protection walls have to be constructed for water conservation. Having them all in mind, the following proposal is put forth by the Public Works Department (PWD) under this NADP.

5.8.1. Development Issues

Restoring existin water harvesting structures**,** reducing surface run off and avoiding seepage loss in order to conserve soil and water conservation.

5.8.2. Constraints

i. Gambling monsoon

ii. Undualetd hilly terrain

iii. Negligible role of local community in waterbody restoration

5.8.3. Interventions

a) All the small and Big tanks / lakes are to be desilted and the bunds should be strengthened.

b) The feeder channels should be lined with cement/ concrete.

c) All the tanks/lakes in each block should be interlinked.

d) Check dams should be constructed across the river distributaries and canals in each block wherever necessary.

e) New tanks, watersheds and percolation ponds have to be constructed.

f) All the medium/ Bigger dames/anicuts canals have to be desilted and lined with cement.

5.8.4 Recommended Interventions for the District, with detailed Action Plan with Costs & Reporting

The detailed programmes proposed under NADP with physical and financial requirements are provided in Chapter VI. After completion of the project implementation, year wise evaluation will be made by monitoring and evaluation wing and the report will be submitted every year.

5.9. Forestry Sector

Dharmapuri District consists of 35 per cent of the Geographical area under forest cover. As not much industrial potential exists, most of the people depend on agriculture only. As an alarming effect of global warming, the quantum of rainfall showed a drastic trend, year after year, forcing the farmers from wet / irrigated farming to dry farming.

5.9.1 Developmental Issues

This proposal aims at rejuvenating the ground water level to that of the olden days for good agricultural practices. Construction of Check dams and Percolation ponds across the streams inside and outside Forest areas abetting the villages could be a major source in water harvesting which could prevent the rainwater from being run off and pave way for percolation.

5.9.2. Constraints

i. Surface run off and soil erosion

ii. Undualted topography

iii. Human animal conflict

5.9.3 Interventions

Fruit bearing seedlings like Mango, Drumstick, Nelli, Naval etc, and seedlings of Tree Species like Teak, Casuarina etc., will be supplied to the village community for homestead/ farmstead planting. The seedlings will be raised / procured and supplied to the farmers, at free of cost, to reduce / prevent the atmosphere from getting polluted. Solar fencing will be erected wherever human settlement is seen adjoining to the forest area.

5.9.4 Recommended Interventions for the District, with detailed Action Plan with Costs & Reporting

The detailed programmes proposed under NADP with physical and financial requirements are provided in Chapter VI. After completion of the project implementation, year wise evaluation will be made by monitoring and evaluation wing and the report will be submitted every year.

5.10. Agricultural Credit

5.10.1. Credit Disbursement

Government of India, State Government, Reserve Bank of India and NABARD have taken a number of steps and policy measures for the growth and development of Agriculture and Rural sectors. Besides, they have introduced several innovations in Agricultural Credit flow system to augment access of the rural people to the banking system. Some of the important policy measures / innovations are outlined in what follows.

I. Policy Innovations of Government of India:

1. Agricultural Debt Waiver (For Small Farmers / Marginal Farmers) and Debt Relief (for other Farmers) Scheme covering direct Agricultural Credit.
2. Short Term Crop Loans continued to be disbursed at seven per cent with interest subvention.
3. National Agricultural Insurance Scheme (NAIS) to continue in the present form for Kharif and Rabi 2008-09.
4. Adoption of concept of Total Financial Inclusion (TFI) and meeting the entire credit requirement of Self-Help-Groups.
5. Implementation of Rain-fed Area Development Programme with an allocation of Rs.348 crores with priority to areas not benefited by Watershed Development Schemes.
6. Central Banks and Rural Regional Banks (RRBs) to add 250 accounts every year in Rural and Semi-urban branches.

II. Policy initiatives of Reserve Bank of India:

1. Guidelines on Priority Sector Lending (PSL) revised enlarging its scope.
2. Limits for loans under DRI scheme raised from Rs.6500 to Rs.15000 and that for housing loan under scheme from Rs.5000 to 20000.
3. CBs/RRBs to introduce on a pilot basis in one district, a simplified cyclical credit product whereby the farmers can use core component of 20 per cent of credit limit throughout the year, provided interest is serviced.
4. Banks are allowed to utilize the services of retired bank / Government employees and ex-servicemen as business correspondents.

III. Policy and Development Initiatives of NABARD:

1. NABARD to play an active and supportive role in the implementation of 'Rural Business Hub' Scheme of Ministry of Panchayat Raj envisaging Public-Private-Panchayat Partnership to develop holistic and integrated partnership between decentralized rural production units and larger corporate entities.

2. A new find "Farmers' Technology Transfer Fund" created to support programmes, workshops / seminars on technology transfer, marketing of agriculture produce and imparting training on new technologies / agriculture practices
3. NABARD in collaboration with Department of Posts, Government of India, to set up showcases in 100 post offices across the country to showcase the products of SHGs and rural artisans.
4. Krishak Saathi Scheme introduced to provide refinance to banks to provide loans to farmers to free themselves from the clutches of money lenders.
5. RIDF loan at 90 per cent of the project cost allowed for roads and social sector projects in Hill States; also, higher mobilsation advance at 30 per cent of total RIDF loans allowed for these states.

IV. Policy Initiatives of Government of Tamil Nadu:

1. Rs.1150 crores allocated in 2008-09 for compensating co-op. banks for waiver of crop loans.
2. It is proposed to disburse new crop loans to the tune of Rs.1,500 crores during 2008-09.
3. The rate of interest on crop loan reduced from five per cent to four per cent for prompt repayments in 2008-09.
4. Rs.40 crores to provide 50 per cent Insurance Premium for 25 lakhs farmers towards crop insurance.
5. SRI cultivation of paddy to be extended to all districts at an estimated cost of Rs.64 crores.
6. 25 per cent subsidy to farmers for purchasing farm machinery under NADP.
7. Afforestation Progrmme in 51,500 hectares at a cost of Rs.113 crores. 1,000 check dams and 300 percolation ponds to be constructed throughout the State. Rupees three crores provided for forest roads. Rs.10 crores allocated for planting one crore saplings in private lands.

8. Tamil Nadu Co-operative Milk Producers Federation to provide 10,000 crossbred milch animals to Women Self Help Groups in 200 villages covering 5000 women. This scheme will be implemented at a cost of Rs.22 crores for a period of two years.
9. IAMWARD Project extended to another 16 sub-basins.
10. Construction of 48,500 checkdams and perculation tanks in 232 over exploited blocks for conserving ground water at a cost of Rs.550 crores.
11. State Government to open 4 SEZs in Tirunelveli, Tiruvannamalai, Erode and Vellore Districts.
12. A sum of Rs.504 crores is allocated under "Anaithu Grama Anna Marumalarchi Scheme" for undertaking basic infrastructure related works in 2521 village panchayats.
13. Rs.50 crores provided in 2008-09 for 1625 community developmental works under 'Namakku Naame Thittam'.

Activity wise credit disbursement and projection under agricultural and allied sectors in Dharmapuri district is furnished in Table 5.6.

Table 5.6. Activity Wise Credit Disbursement and Projections under Agricultural and Allied Sectors in Dharmapuri District

(Rs. lakh)

Sectors	2008-09	2009-10	2010-11	2011-12
Crop loan	28593.25	30022.91	31524.06	33100.26
Term loan				
Micro Irrigation	637.29	669.15	702.61	737.74
Land Development	362.41	380.53	399.56	419.53
Farm Mechanization	2025.40	2126.67	2233.00	2344.65
Plantation & Horticulture	1123.33	1179.50	1238.47	1300.40
Forestry & Waste land Development	45.33	47.60	49.98	52.48
Dairy Development	5486.43	5760.75	6048.79	6351.23
Poultry	1174.80	1233.54	1295.22	1359.98
Sheep/Goat/Piggery	258.65	271.58	285.16	299.42
Fisheries	11.54	12.12	12.72	13.36
Storage Godown & Market yards	546.49	573.81	602.51	632.63
Bio-gas	9.26	9.72	10.21	10.72
Sericulture	0.00	0.00	0.00	0.00
Others	5072.27	5325.88	5592.18	5871.79
Sub total - Term loan	16753.20	17590.86	18470.40	19393.92
Total Agriculture Credit (1+2)	45346.45	47613.77	49994.46	52494.18
Non Farm sector	4294.61	4509.34	4734.81	4971.55
Other Priority Sector	13243.23	13905.39	14600.66	15330.69
Grand Total	**62884.29**	**66028.50**	**69329.93**	**72796.42**

From the table it could be seen the projected flow of credit disbursement for agriculture and allied sectors during 2009-10, 2010-11 2011-2012 would be respectively Rs. 66028.50, Rs. 69329.93 and Rs. 72796.42 lakhs. The total flow of agriculture credit in terms of crop loan and term loan in 2011-12 would be Rs.52494.18 lakhs. The flow of credit for non farm sector and other priorty sectors in 2011-12 would be Rs. 4971.55 and Rs.15330.69 lakhs respectively.

CHAPTER - VI

DISTRICT PLAN – PROJECT PROPOSALS

Agriculture is the major profession in Dharmapuri district, which supports 70 per cent of population. The net sown area is about 1,63,053 hectares (2005-06). The agriculture sector, which targeted at a growth rate of about 4 per cent during X Five Year plan period, could not be achieved due to the drought conditions prevailing in the district during the first two years of the plan period. It is expected that the cropping intensity is to be increased to 140 per cent from the current level of 120 per cent. Similarly, the trend is to double the horticulture production in the district during the plan period. The growth of this sector is vitally important to provide food security, sustainability and to increase employment opportunity to the rural people in the district.

To achieve this goal all the sectors involved in the rural development need to respond through concreted effort with active support of all developing agencies of the government and other vested stakeholders. The district action plan for sector - wise for XI Five Year plan under NADP is presented and briefly discussed in this chapter.

6.1 AGRICULTURE

6.1.1.Paddy

Project - 1

Title of the Project : Promotion of System of Rice Intensification (SRI) in Paddy

i. Project components : Distribution of Marker, distribution of Conoweeder, distribution of Leaf Colour Chart (LCC), conduct of training programmes

ii. Implementing agency : Agricultural Engineering & Agricultural Department

iii. Location :Dharmapuri

iv. Stakeholders : Farmers

v. Timeframe : 2008-2012

vi. Unit cost : Rs. 5000/ ha

vii. Total cost : Rs. 160 lakhs

Project - 2

i. Title of the project : Integrated Nutrient Management (INM) in Paddy

ii. Project components :

a. Distribution of soil Health Card

b. Distribution of Green manure seeds

c. Supply of MN Mixture

d. Supply of Gypsum

e. Supply of organic manures (Vermicompost or Poultry manure or Coir pith compost or neem cake)

f. Application of Biofertilizer (Azospirillum + Phosphobacteria + VAM)

iii. Implementing agency : Agricultural Department

iv. Location : Dharmapuri

v. Stakeholders : Farmers

vi. Timeframe : 2008-2012

vii. Unit cost : Rs. 7606/ ha

viii. Total cost : Rs. 243.52 lakhs

Project - 3

i. **Title of the Project : Integrated Pest Management (INM) in Paddy**

ii. **Project components :**

a. Farmers Field School (FFS)

b. IPM - Pseudomonas, NSKE 5per cent, Pheromone Trap and parasitoids

c. Rat control campaign in village

d. Training

iii. Implementing agency : Agricultural Department

iv. Location : Dharmapuri

v. Stakeholders : Farmers

vi. Timeframe : 2008-2012

vii. Total cost : Rs. 302.4 lakhs

Project - 4

i. **Title of the Project : Improving Seed Production for Supplying Quality Seeds**

ii. **Project Components :**

a. One time grant to TANWABE/FIG to take up certified seed production & distribution

b. Incentive for seed production to self help groups/TABWAVE/FIG. -

c. Seed distribution subsidy for the seeds produced by SITA /TANWABE/FIG -

d. Supply of quality certified seeds at nominal cost

e. Seed minikit of new HYV

f. Hybrid rice seed distribution

iii. Implementing agency : Agricultural Department

iv. Location : Dharmapuri

v. Stakeholders : Farmers

vi. Timeframe : 2008-2012

vii. Total cost (100 ha) : Rs. 108.16 lakhs

Project - 5

i. Title of the Project : Introduction of Farm Mechanization to reduce Labour Scarcity

ii. Project Components :

a. Transplanter to TANWABE/FIG/Farmers

b. Power Tiller with accessories

c. Power Thrasher

iii. Implementing agency : Agricultural Engineering

iv. Location : Dharmapuri

v. Stakeholders : Farmers

vi. Timeframe : 2008-2012

vii. Total cost : Rs. 88 lakhs

Project - 6

i. **Title of the Project : Campaigns for Dissemination of Technologies**

ii. **Project components :**

a. Demonstration on SRI/Hybrid rice

b. Villages Campaigns - Kharif/Rabi

iii. Implementing agency : Agricultural Department

iv. Location : Dharmapuri

v. Stakeholders : Farmers

vi. Timeframe : 2008-2012

vii. Total cost : Rs. 25.60 lakhs

Project - 7

i. **Title of the Project : Strengthening Post Harvest Technologies to reduce the Loss of Food Grains**

ii. **Project Components**

a. Tarpaulin

b. Community Thrashing floor

c. Publicity / POL & Hiring of Vehicle

iii. Implementing agency : Agricultural Department

iv. Location : Dharmapuri

v. Stakeholders : Farmers

vi. Timeframe : 2008-2012

vii. Total cost : Rs. 244.80 lakhs

6.1.2. Millets

Project - 1

i. Title of the Project : Increasing the production /Productivity of millets by using advanced Technologies

ii. Project Components

a. HYV - seed/Hybrids distribution

b. Supply of organic manures

c. Distribution of Biofertilizer @ 90 per cent subsidy (Azospirillum + Phosphobacteria)

d. Seed Treatment with Bio agents (Trichodema viride 4g/ kg , Pesticides @ 1 lit / ha & Fungicides – 1 Kg / ha)

e. Application of MN mixture 12.5kg / ha @ Rs. 500 / ha

iii. Implementing agency : Agricultural Department

iv. Location : Dharmapuri

v. Stakeholders : Farmers

vi. Timeframe : 2008-2012

vii. Unit cost : Rs.6596/-

vii. Total cost : Rs. 211.20 lakhs

6.1.3 Groundnut

Project - 1

i. Title of the Project : Increasing the productivity by improving the Soil Fertility and other Improved Practices

ii. Project Components

- Seed distribution @ 90 per cent Subsidy 200 Kg pods / ha = Rs. 30/ kg
- Integrated Nutrient Management – Gypsum @ 400 Kg / Ha (Basal + Top on 45 DAS)
- MN mixture – 12.5 Kg / ha @ Rs. 500 / ha
- Application of tank silt @ Rs.5000/Ha or vermicompost or coir pith or neem cake
- Application of Biofertilizers (Rhizobium & Phosphobacteria) 26 packets / ha
- Foliar Spray of Nutrients
- PP Chemicals – Seed Treatment (T.Viride) (0.5 Kg/ ha) (Need based Pesticides + Fungicides) 1 lit/ha (350) 1 Kg / Ha (280)

iii. Implementing agency : Agricultural Department

iv. Location : Dharmapuri

v. Stakeholders : Farmers

vi. Timeframe : 2008-2012

vii. Unit cost : Rs.13, 236/-

vii. Total cost : Rs.424.64 lakhs

Project - 2

i. Title of the Project : Mechanization in Groundnut Cultivation

ii. Project Components

a. Tractor drawn harvester

b. Groundnut Seed drill

c. Groundnut Stripper

d. Groundnut Decorticator (power)

iii. Implementing agency : Department of Agricultural Engineering

iv. Location : Dharmapuri

v. Stakeholders : Farmers

vi. Timeframe : 2008-2012

vii. Total cost : Rs.312.80 lakhs

6.1.4. Sunflower & Gingelly

Project - 1

i. Title of the Project : Increasing the productivity of Oilseeds by improving the Soil Fertility and other improved Practices

ii. Project Components

1) Seed distribution @ 90 per cent subsidy
   Sunflower @ 5 Kg / Ha
   Gingelly @ 5 Kg / Ha

2) INM Gingelly application of MNSo4 @ 5 Kg / Ha (Rs. 40 kg)
   MN Mixture application @ 12.5 Kg/ ha

3) Foliar Spray of Nutrients (DAP/Borax)

4) Application of Biofertilizer (Azospirillum & Phosphobacteria) 26 Packets/ha/crop

5) PP Chemicals

Seed Treatment - T.viride (0.5 Kg/ ha)

Pesticides + Fungicides

iii. Implementing agency	:	Department of Agriculture
iv. Location	:	Dharmapuri
v. Stakeholders	:	Farmers
vi. Timeframe	:	2008-2012
vii. Unit cost	:	Rs. 2836 / Ha for Sunflower & Rs. 2436 / Ha for Gingelly
viii. Total cost	:	Rs. 90.88 lakhs for sunflower &
		Rs. 78.08 lakhs for gingelly

6.1.5. Coconut

Project - 1

i. Title of the Project : Increasing the Production of Coconut

ii. Project Components

1) Supply of major nutrients @ 90 per cent subsidy @ 1.35 kg urea; 2 Kg Super; 2 Kg potash / tree (Rs. 24/ tree) -

2) Application of TNAU Coconut Tonic @ 200 ml/ tree Two times/ year

3) PP Chemicals - Monocrotophos 20 ml/ tree

4) Release of Larval Parasitoids

1) Labour Saving Equipments

a) Coconut Dehusker

b) Coconut Tree Climber

iii.	Implementing Agency	:	Department of Agriculture
iv.	Location	:	Dharmapuri
v.	Stake Holders	:	Farmers
vi.	Time Frame	:	2008-2012
vii.	Unit cost	:	Rs. 140.24/ Tree
viii.	Total cost	:	Rs. 102.40 lakhs

6.1.6. Pulses

Project -1

i. **Title of the Project : Increasing the cultivation area, Production and Productivity of Pulses by enhancing the Adoptability of Improved Technology**

ii. **Project Components**

1) Seed distribution @ 20 Kg / ha

2) Seed Production through FIG / TANWABE One time grant 10 T / Group /Year)

3) Pipes carrying water from source to field

4) Precision farming by sprinkler

5) Distribution of rain gun

6) Distribution of biofertiliser

7) Foliar nutrition application

8) Farmers Training

iii.	Implementing Agency	:	Department of Agriculture & Agricultural Engineering
iv.	Location	:	Dharmapuri
v.	Stake Holders	:	Farmers
vi.	Time Frame	:	2008-2012
vii.	Total Cost	:	Rs. 1091.20 lakhs

Project - 2

i. Title of the project: pulses DAP two per cent spray

ii. Project components: to increase the productivity of pulses ,two per cent spray is recommended

iii. Project coverage: 1200ha

iv. Project cost: Rs.2.40 lakhs for first year only

6.1.7. Sugarcane

Project - 1

i. Title of the Project : Increasing the Water and & Fertilizer use Efficiency in Sugarcane

ii. Project Components

1. Installing Drip Irrigation system
2. Supply of Water soluble Fertilizers / PP chemicals
3. Training and Demonstration (10+5)

iii.	Implementing Agency	:	Department of Agricultural Engineering and Sugarmills
iv.	Location	:	Dharmapuri
v.	Stake Holders	:	Farmers
vi.	Time Frame	:	2008-2012
vii.	Total cost	:	Rs.3395.20 lakhs

Project - 2

i. Title of the Project : Introduction of Machineries / Implements in Sugarcane Cultivation

ii. Project Components

1) Purchase of Tractor mounted post hole digger
2) Power Weeder with attachment
3) Detrasher
4) Sugarcane set cutter cum planter
5) Tractor mounted rotavator
6) Heavy Duty ridger

iii.	Implementing Agency	:	Department of Agricultural Engineering and Sugar Mills
iv.	Location	:	Dharmapuri
v.	Stake Holders	:	Farmers
vi.	Time Frame	:	2008-2012
vii.	Total cost	:	Rs. 800 lakhs

6.1.8. Cotton

Project - 1

i. Title of the Project : Adopting Improved Management Technologies in Cotton to increase the Production

ii. Project Components

1. Seed distribution for Bt Hybrid Cotton @ 90 per cent subsidy
2. MN Mixture
3. IPM to control Sucking Pest Imidachloprid
4. Cotton Stalk puller
5. FFS to TANWABE / FIG

iii.	Implementing Agency	: Department of Agriculture and Agricultural Engineering
iv.	Location	: Dharmapuri
v.	Stake Holders	: Farmers
vi.	Time Frame	: 2008-2012
vii.	Unit Cost	: Rs. 6935/ Ha
viii.	Total cost	: Rs. 222.08 lakhs

6.1.9 Budget Summary

The above said projects accounted for Rs.7662.24 for agricultural sector under NADP for the XI plan period. The details are given in the following Table 6.1.

Table 6.1 Budget details for Agricultural Sector

(Rs. in Lakhs)

S. No.	Activity Based	Unit Cost Rs.	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	No. of Units	Total Cost
	Action Plan - Food Crops											
1	Increasing the production/Productivity of millets by using advanced Technologies (Including minor millets)	6596 / ha	800	52.768	800	52.768	800	52.768	800	52.768	3200	**211.07**
2	Increasing the productivity of Oilseeds by improving the Soil fertility and other improved practices.											
	a) Sunflower	2836 / ha	800	22.69	800	22.69	800	22.69	800	22.69	3200	**90.75**
	b) Gingelly	2436 / ha	800	19.488	800	19.488	800	119.488	800	19.488	3200	**77.95**
3	Increasing the water and & Fertilizer use efficiency in Sugarcane.	1,06,100/ ha	800	848.80	800	848.80	800	848.80	800	848.80	3200	**3395.20**
4	a.Increasing the cultivation area, Production and Productivity of Pulses by enhancing the adoptability of improved technology	-	-	272.80	-	272.80	-	272.80	-	272.80	-	**1091.20**
	b.DAP 2 per cent spray for first year only	Rs.200 /ha	1200 hec	2.40	-	-	-	-	-	-	1200	**2.40**

Table 6.1 Contd…. **(Rs. in Lakhs)**

S. No.	Activity Based	Unit Cost Rs.	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	No. of Units	Total Cost
5	Promotion of SRI in Paddy	5000/ha	800	40.00	800	40.00	800	40.00	800	40.00	3200	**160.00**
6	INM in Paddy	7606/ha	800	60.848	800	60.848	800	6060.848	800	60.848	3200	**243.39**
7	Integrated pest & Disease management in Paddy											
	a) IPM	500 / ha	800	4.00	800	4.00	800	4.00	800	4.00	3200	**16.00**
	b) FFS	17,000 / No	16	2.72	16	2.72	16	2.72	16	2.72	64	**10.88**
	c) Campaign	5000/ village	160	8.00	160	8.00	160	8.00	160	8.00	640	**32.00**
	d) Training	5000/ Training	24	1.20	24	1.20	24	1.20	24	1.20	96	**4.80**
8	Improving seed production for supplying quality seeds to farmers.											
	a) One time grant to TANWABE/FIG	50,000 / No	8	4.00	8	4.00	8	4.00	8	4.00	32	**16.00**
	b) Incentive for seed production to self help groups/TABWAVE/FIG.	3000/ No	120	3.60	120	3.60	120	3.60	120	3.60	480	**14.40**
	c) Seed distribution subsidy	5000/unit	120	6.00	120	6.00	120	6.00	120	6.00	480	**24.00**
	d) Supply of quality certified seeds	5000/unit	240	12.00	240	12.00	240	12.00	240	12.00	960	**48.00**

Table 6.1 Contd…. **(Rs. in Lakhs)**

S. No.	Activity Based	Unit Cost Rs.	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	No. of Units	Total Cost
	e) Seed Minikit	100 / No	240	0.24	240	0.24	240	0.24	240	0.24	960	**0.96**
	f). Hybrid rice seed distribution	100 / kg	1200	1.20	1200	1.20	1200	1.20	1200	1.20	4800	**4.80**
9	Adopting Improved Management Technologies in Cotton to increase the production.	6935 / ha	800	55.48	800	55.48	800	55.48	800	55.48	3200	**222.92**
10	Introduction of Machineries / Implements in Sugarcane Cultivation.	-	-	200	-	200	-	200	-	200	-	**800**
11	Conducting Demonstrations/Campaigns for dissemination of Technologies.											
	a) Demonstration on SRI/Hybrid rice	3000/ No.	160	4.80	160	4.80	160	4.80	160	4.80	640	**19.20**
	b) Campaign	1000/ No.	160	1.60	160	1.60	160	1.60	160	1.60	640	**6.40**
12	To enhance the post Harvest Technologies to reduce the loss of food grains.											
	a) Tarpaulin	5000 / No	80	4.00	80	4.00	80	4.00	80	4.00	320	**16.00**
	b) Community Thrashing floor	1,00,000 / No	56	56.00	56	56.00	56	56.00	56	56.00	224	**224.00**

Table 6.1 Contd…. **(Rs. in Lakhs)**

S. No.	Activity Based	Unit Cost Rs.	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	No. of Units	Total Cost
	c) Publicity / POL & Hiring of Vehicle	15,000	-	1.20	-	1.20	-	1.20	-	1.20	-	**4.80**
13	Mechanization in Groundnut cultivation	-	-	68.00	-	74.80	-	81.60	-	88.40	-	**312.80**
14	Increasing the productivity by improving the Soil fertility and other improved practices.	13236/ ha	800	105.888	800	105.888	800	1105.888	800	105.888	3200	**423.55**
15	a) Increasing the production of Coconut	140.24/ Tree	8000	11.20	8000	11.20	8000	11.20	8000	11.20	32000	**44.88**
	b). Coconut Tree Climber	3,600 / No	400	14.40	400	14.40	400	14.40	400	14.40	1600	**57.60**
16	Introduction of machineries and equipments to compensate labour Scarcity & carry out timely operations.	75,000 / No	8	6.00	8	6.00	8	6.00	8	6.00	32	**24.00**
	a) Paddy Transplanter	75,000 / No	8	6.00	8	6.00	8	6.00	8	6.00	32	**24.00**
	b) Power Tiller with accessories	75,000 / No	8	6.00	8	6.00	8	6.00	8	6.00	32	**24.00**
	c) Power Thrasher	50,000 / No	8	4.00	8	4.00	8	4.00	8	4.00	32	**16.00**
	Total Cost			**1907.322**		**1911.72**		**1918.52**		**1925.32**		**7662.88**

6.2 HORTICULTURE

6.2.1. Introduction

Dharmapuri district forms the major horticultural hub of the state. As the area is drought – prone, it has become essential to switch over to the cultivation of drought tolerant perennial fruit crops in this district. Mango is the main horticulture crop of this district. It has the highest area under the fruit crops. The district accounts for nearly one-third area under mango and nearly one-half of the mango yield in the state. Almost all types of fruits, vegetables and flowers are cultivated in Dharmapuri district.

6.2.2. Project Proposals

In order to boost horticulture production of the district, the following projects have been proposed under NADP.

Project - 1

i. Title of the Project : Precision farming in Dharmapuri district

ii. Project Components

a. Drip irrigation component

b. Quality inputs

c. Better nursery material

iii. Implementing agency : Department of Horticulture

iv. Location : Dharmapuri

v. Stakeholders : Farmers

vi. Timeframe : 2008-2012

vii. Total cost : Rs.836.38 lakhs

Project - 2

i. Title of the Project	**: Support System for Banana in Dharmapuri District**
ii. Project Components	: Staking materials and supports
iii. Implementing Agency	: Department of Horticulture
iv. Location	: Dharmapuri
v. Stakeholders	: Farmers
vi. Timeframe	: 2008-2012
vii. Total cost	: Rs.276.00 lakhs

Project - 3

i. Title of the Project	**: Enterprising Farmers Associations in Dharmapuri District**
ii. Project Components	: Rs.25.00 lakh per block For entire district (8x 25) = Rs.200.00 lakh
iii. Implementing Agency	: Department of Horticulture
iv. Location	: Dharmapuri
v. Stakeholders	: Farmers
vi. Timeframe	: 2008-2012
vii. Total cost	: Rs.200.00 lakhs

Project - 4

i. Title of the Project	**: Establishing 10 ha Mega Demo Plot in Dharmapuri District**
ii. Project Components	: Rs.25.00 lakh per block For entire district (8x 25) = Rs.200.00 lakh

iii. Implementing Agency : Department of Horticulture

iv. Location : Dharmapuri

v. Stakeholders : Farmers

vi. Timeframe : 2008-2012

vii. Total cost : Rs.200.00 lakhs

Project - 5

i. Title of the Project : Establishing support system for tomato in Dharmapuri district

ii. Project Components :

Rs.0.25 lakh / ha @ 80 per block (8 x 0.25) = Rs.20.00 lakhs

For entire district (8x 20) = Rs.160.00 lakh

iii. Implementing agency : Department of Horticulture

iv. Location : Dharmapuri

v. Stakeholders : Farmers

vi. Timeframe : 2008-2012

vii. Total cost : Rs.160.00 lakhs

6.2.3 Budget Summary

The above said five major projects accounted for Rs. 1672.38 lakhs out of the total outlay of for horticulture Rs. 2427.288 lakhs under NADP for the XI plan period. Remaining activities accounted for Rs. 754.908 lakhs. The block-wise distribution details are given in Table 6.2.

Table 6.2 Project Proposal for Horticulture 2008-12

Dharmapuri Block **(Rs in lakhs)**

Sl. No.	Activities	Unit cost	2008-09		2009-10		2010-11		2011-12		Total	
			Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount
1	Precision Farming		40	16.48	40	16.48	60	24.72	40	16.48	180	74.160
	Drip component	Rs.11,200										
	Input cost	Rs.25,000										
	Nursery	Rs.5,000										
2	Enterprising framers associations	Rs.25.00 lakhs each	1	25	-	-	-	-	-	-	1	25.000
3	Erection of net for production of disease free planting material of Tapioca	Rs.1.00 lakh / 300 Sq.m	1	1	1	1.1	1	1.2	1	1.3	4	4.600
4	Tractor mounted steam boiler for turmeric	Rs.50,000/ No.	1	0.5	1	0.55	1	0.6	1	0.65	4	2.300
5	Sales outlet points in districts (Rent and infrastructure	Rs.2.60 lakhs /No	1	2.6	-	-	-	-	-	-	1	2.600
6	Support system for Tomato	Rs.25000/ Ha	10	2.5	10	2.5	10	2.5	10	2.5	40	10.000
7	Plastic Crates for vegetable handling and transport	Rs.250/ crate	250	0.625	250	0.6875	250	0.75625	250	0.83187	1000	2.900
8	Bore well with casing pipe	Rs.1.5 lakh	1	1.5	1	1.65	1	1.80	1	1.95	4	6.900
9	Assistance for water soluble Fertilizers	Rs.15000/ Ha	20	3	20	3	20	3	20	3	80	12.000
10	Advertisement & Publishing		-	2	-	-	-	-	-	-	-	2.000

Dharmapuri block Contd…..

(Rs in lakhs)

Sl. No.	Activities	Unit cost	2008-09		2009-10		2010-11		2011-12		Total	
			Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount
11	Net House structure		1	1.00	1	1.10	1	1.20	1	1.30	4	4.600
	a. Nursery & Vegetable production	Rs.1.00 lakh/300 Sq.m										
12	Pandal for vegetable production	Rs.1.00 lakh/ha	1	1.00	1	1.10	1	1.20	1	1.30	4	4.600
13	Banana Bunch cover	Rs.10 piece	5000	0.50	5000	0.55	5000	0.6	5000	0.65	20	2.300
14	Support system for crops a. Banana	Rs.1.5 lakhs/ha	5	7.5	5	8.25	5	9	5	9.75	20	34.500
15	Banana Corm injector	Rs.300 / No.	10	0.03	10	0.033	10	0.036	10	0.039	40	0.138
16	Package for plant protection	Rs.3,000/ha	10	0.300	10	0.33	10	0.36	10	0.39	40	1.380
17	Farm waste shredder/Vegetable waste shredder	Rs.40,000/ No.	1	0.40	1	0.44	1	0.48	1	0.52	4	1.840
18	Humic acid/Effective E Microbes	Rs.400/litre	10 lit	0.04	10 lit	0.044	10 lit	0.048	10 lit	0.052	40 lit	0.184
19	Mango harvester	Rs.500 /No.	20	0.1	20	0.11	20	0.12	20	0.13	80	0.460
20	Support for betel vine	Rs.40,000 for 20 cents	4	1.6	-	-	-	-	-	-	4	1.600
21	District Level Farmers Workshop	Rs.400/farmer / day	25	0.1	25	0.1	25	0.1	25	0.1	100	0.400
22	Inter State Exposure visit (5 days	Rs.5,000/ farmer	25	1.25	25	1.25	25	1.25	25	1.25	100	5.000
23	10 hectare mega demo plot for the districts	Rs.25.00 lakhs each			-	-	-	-	1	25	1	25.000
	Total			**69.025**		**39.2745**		**48.97**		**67.193**		**224.463**

Harur Block **(Rs in lakhs)**

Sl. No.	Activities	Unit cost	2008-09		2009-10		2010-11		2011-12		Total	
			Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount
1	Precision Farming		60	24.72	60	24.72	80	32.96	60	24.72	260	107.12
	Drip component	Rs.11,200										
	Input cost	Rs.25,000										
	Nursery	Rs.5,000										
2	Enterprising framers associations	Rs.25.00 lakhs each	1	25	-	-	-	-	-	-	1	25
3	Erection of net for production of disease free planting material of Tapioca	Rs.1.00 lakh / 300 Sq.m	1	1	1	1.1	1	1.2	1	1.3	4	4.6
4	Tractor mounted steam boiler for turmeric	Rs.50,000/ No.	1	0.5	1	0.55	1	0.6	1	0.65	4	2.3
5	Sales outlet points in districts (Rent and infrastructure	Rs.2.60 lakhs /No	1	2.6	-	-	-	-	-	-	1	2.6
6	Support system for Tomato	Rs.25000/ Ha	20	5	20	5	20	5	20	5	80	20
7	Plastic Crates for vegetable handling and transport	Rs.250/crate	1000	2.5	1000	2.75	1000	3	1000	3.25	4000	11.5
8	Bore well with casing pipe	Rs.1.5 lakh	8	12	8	13.2	8	14.4	8	15.6	32	55.2
9	Assistance for water soluble Fertilizers	Rs.15000/ Ha	30	4.5	30	4.5	30	4.5	30	4.5	120	18

Harur Block Contd… **(Rs in lakhs)**

Sl. No.	Activities	Unit cost	2008-09		2009-10		2010-11		2011-12		Total	
			Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount
10	Net House structure											
	a. Nursery & Vegetable production	Rs.1.00 lakh/ 300 Sq.m	2	2	2	2.2	2	2.4	2	2.6	8	9.2
11	Pandal for vegetable production	Rs.1.00 lakh/ha	1	1	1	1.1	1	1.2	1	1.3	4	4.6
12	Banana Bunch cover	Rs.10 piece	5000	0.5	5000	0.55	5000	0.6	5000	0.65	20	2.3
13	Support system for crops a. Banana	Rs.1.5 lakhs/ha	5	7.5	5	8.25	5	9	5	9.75	20	34.5
14	Banana Corm injector	Rs.300 / No.	20	0.06	20	0.066	20	0.072	20	0.0726	80	0.2706
15	Package for plant protection	Rs.3,000/ha	10	0.3	10	0.33	10	0.36	10	0.39	40	1.38
16	Farm waste shredder/Vegetable waste shredder	Rs.40,000/ No.	1	0.4	1	0.44	1	0.48	1	0.52	4	1.84
17	Humic acid/Effective E Microbes	Rs.400/litre	10 lit	0.04	10 lit	0.044	10 lit	0.048	10 lit	0.052	40 lit	0.184
18	Mango harvester	Rs.500 /No.	30	0.15	30	0.165	30	0.18	30	0.195	120	0.69
19	Support for betel vine	Rs.40,000 for 20 cents	-	-	-	-	-	-	-	-	-	-
20	District Level Farmers Workshop	Rs.400/ farmer / day	25	0.1	25	0.1	25	0.1	25	0.1	100	0.4
21	Inter State Exposure visit (5 days)	Rs.5,000/ farmer	25	1.25	25	1.25	25	1.25	25	1.25	100	5
22	10 hectare mega demo plot for the districts	Rs.25.00 lakhs each			1	25	-	-	-	-	1	25
	Total			**91.120**		**91.315**		**77.35**		**71.8996**		**331.685**

Karimangalam Block **(Rs in lakhs)**

Sl. No.	Activities	Unit cost	2008-09		2009-10		2010-11		2011-12		Total	
			Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount
1	Precision Farming		40	16.48	40	18.13	40	19.78	40	21.43	120	75.82
	Drip component	Rs.11,200										
	Input cost	Rs.25,000										
	Nursery	Rs.5,000										
2	Enterprising framers associations	Rs.25.00 lakhs each	1	25	-	-	-	-	-	-	1	25
3	Erection of net for production of disease free planting material of Tapioca	Rs.1.00 lakh / 300 Sq.m	1	1	1	1.1	1	1.2	1	1.3	4	4.6
4	Tractor mounted steam boiler for turmeric	Rs.50,000/No.	1	0.5	1	0.55	1	0.6	1	0.65	4	2.3
5	Sales outlet points in districts (Rent and infrastructure	Rs.2.60 lakhs /No	-	p	-	-	-	-	-	-	-	-
6	Support system for Tomato	Rs.25000/ Ha	20	5	20	5	20	5	20	5	80	20
7	Plastic Crates for vegetable handling and transport	Rs.250/crate	500	1.25	500	1.375	500	1.5	500	1.625	2000	5.75
8	Bore well with casing pipe	Rs.1.5 lakh	2	3	2	3.3	2	3.6	2	3.9	8	13.8
9	Assistance for water soluble Fertilizers	Rs.15000/ Ha	30	4.5	30	4.5	30	4.5	30	4.5	120	18

Karimangalam Block Contd…. **(Rs in lakhs)**

Sl. No.	Activities	Unit cost	2008-09		2009-10		2010-11		2011-12		Total	
			Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount
10	Net House structure											
	a. Nursery & Vegetable production	Rs.1.00 lakh/ 300 Sq.m	1	1	1	1.1	1	1.2	1	1.3	4	4.6
11	Pandal for vegetable production	Rs.1.00 lakh/ha	1	1	1	1.1	1	1.2	1	1.3	4	4.6
12	Banana Bunch cover	Rs.10 piece	5000	0.5	5000	0.55	5000	0.6	5000	0.65	20	2.3
13	Support system for crops a. Banana	Rs.1.5 lakhs/ha	5	7.5	5	8.25	5	9	5	9.75	20	34.5
14	Banana Corm injector	Rs.300 / No.	10	0.03	10	0.033	10	0.036	10	0.039	40	0.138
15	Package for plant protection	Rs.3,000/ha	10	0.3	10	0.33	10	0.36	10	0.39	40	1.38
16	Farm waste shredder/ Vegetable waste shredder	Rs.40,000/ No.	1	0.4	1	0.44	1	0.48	1	0.52	4	1.84
17	Humic acid/Effective E Microbes	Rs.400/litre	10 lit	0.04	10 lit	0.044	10 lit	0.048	10 lit	0.052	40 lit	0.184
18	Mango harvester	Rs.500 /No.	30	0.15	30	0.165	30	0.18	30	0.195	120	0.69
19	Support for betel vine	Rs.40,000 for 20 cents	-	-	-	-	-	-	-	-	-	-
20	District Level Farmers Workshop	Rs.400/ farmer / day	25	0.1	25	0.1	25	0.1	25	0.1	100	0.4
21	Inter State Exposure visit (5 days)	Rs.5,000/ farmer	25	1.25	25	1.25	25	1.25	25	1.25	100	5
22	10 hectare mega demo plot for the districts	Rs.25.00 lakhs each			-	-	1	25	-	-	1	25
	Total			**69.00**		**47.317**		**75.634**		**53.951**		**245.902**

Morappur Block **(Rs in lakhs)**

Sl. No.	Activities	Unit cost	2008-09		2009-10		2010-11		2011-12		Total	
			Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount
1	Precision Farming		60	24.72	60	24.72	80	32.96	60	24.72	260	107.12
	Drip component	Rs.11,200										
	Input cost	Rs.25,000										
	Nursery	Rs.5,000										
2	Enterprising framers associations	Rs.25.00 lakhs each	1	25	-	-	-	-	-	-	1	25
3	Erection of net for production of disease free planting material of Tapioca	Rs.1.00 lakh / 300 Sq.m	1	1	1	1.1	1	1.2	1	1.3	4	4.6
4	Tractor mounted steam boiler for turmeric	Rs.50,000/ No.	1	0.5	1	0.55	1	0.6	1	0.65	4	2.3
5	Sales outlet points in districts (Rent and infrastructure	Rs.2.60 lakhs /No	-	-	-	-	-	-	-	-	-	-
6	Support system for Tomato	Rs.25000/ Ha	20	5	20	5	20	5	20	5	80	20
7	Plastic Crates for vegetable handling and transport	Rs.250/crate	500	1.25	500	1.375	500	1.5	500	1.625	2000	5.75
8	Bore well with casing pipe	Rs.1.5 lakh	1	1.5	1	1.65	1	1.8	1	1.95	4	6.9
9	Assistance for water soluble Fertilizers	Rs.15000/ Ha	20	3	20	3	20	3	20	3	80	12

Morappur Block Contd…. **(Rs in lakhs)**

Sl. No.	Activities	Unit cost	2008-09		2009-10		2010-11		2011-12		Total	
			Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount
10	Net House structure											
	a. Nursery & Vegetable production	Rs.1.00 lakh/300 Sq.m	2	2	2	2.2	2	2.4	2	2.6	8	9.2
11	Pandal for vegetable production	Rs.1.00 lakh/ha	1	1	1	1.1	1	1.2	1	1.3	4	4.6
12	Banana Bunch cover	Rs.10 piece	5000	0.5	5000	0.55	5000	0.6	5000	0.65	20	2.3
13	Support system for crops a. Banana	Rs.1.5 lakhs/ha	5	7.5	5	8.25	5	9	5	9.75	20	34.5
14	Banana Corm injector	Rs.300 / No.	10	0.033	10	0.033	10	0.036	10	0.039	40	0.138
15	Package for plant protection	Rs.3,000/ha	10	0.3	10	0.33	10	0.36	10	0.39	40	1.38
16	Farm waste shredder/ Vegetable waste shredder	Rs.40,000/ No.	1	0.4	1	0.44	1	0.48	1	0.52	4	1.84
17	Humic acid/Effective E Microbes	Rs.400/litre	10 lit	0.04	10 lit	0.044	10 lit	0.048	10 lit	0.052	40 lit	0.184
18	Mango harvester	Rs.500 /No.	30	0.15	30	0.165	30	0.18	30	0.195	120	0.69
19	Support for betel vine	Rs.40,000 for 20 cents	2	0.8	-	-	-	-	-	-	2	0.8
20	District Level Farmers Workshop	Rs.400/ farmer / day	25	0.1	25	0.1	25	0.1	25	0.1	100	0.4
21	Inter State Exposure visit (5 days)	Rs.5,000/ farmer	25	1.25	25	1.25	25	1.25	25	1.25	100	5
22	10 hectare mega demo plot for the districts	Rs.25.00 lakhs each			-	-	1	25	-	-	1	25
	Total			**76.043**		**51.857**		**86.714**		**55.091**		**269.705**

Nallampally Block **(Rs in lakhs)**

Sl. No.	Activities	Unit cost	2008-09		2009-10		2010-11		2011-12		Total	
			Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount
1	Precision Farming		40	16.48	40	16.48	60	24.72	40	16.48	180	74.160
	Drip component	Rs.11,200										
	Input cost	Rs.25,000										
	Nursery	Rs.5,000										
2	Enterprising framers associations	Rs.25.00 lakhs each	1	25	-	-	-	-	-	-	-	25
3	Erection of net for production of disease free planting material of Tapioca	Rs.1.00 lakh / 300 Sq.m	1	1	1	1.1	1	1.2	1	1.3	4	4.6
4	Tractor mounted steam boiler for turmeric	Rs.50,000/ No.	1	0.5	1	0.55	1	0.6	1	0.65	4	2.3
5	Sales outlet points in districts (Rent and infrastructure	Rs.2.60 lakhs /No	-	-	-	-	-	-	-	-	-	-
6	Support system for Tomato	Rs.25000/ Ha	20	5	20	5	20	5	20	5	80	20
7	Plastic Crates for vegetable handling and transport	Rs.250/crate	250	0.625	250	0.6875	250	0.75625	250	0.83187	1000	2.9
8	Bore well with casing pipe	Rs.1.5 lakh	1	1.5	1	1.65	1	1.8	1	1.95	4	6.9
9	Assistance for water soluble Fertilizers	Rs.15000/ Ha	30	4.5	30	4.5	30	4.5	30	4.5	120	18

Nallampally Block Contd…. **(Rs in lakhs)**

Sl. No.	Activities	Unit cost	2008-09		2009-10		2010-11		2011-12		Total	
			Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount
10	Net House structure											
	a. Nursery & Vegetable production	Rs.1.00 lakh/300 Sq.m	1	1	1	1.1	1	1.2	1	1.3	4	4.6
11	Pandal for vegetable production	Rs.1.00 lakh/ha	1	1	1	1.1	1	1.2	1	1.3	4	4.6
12	Banana Bunch cover	Rs.10 piece	5000	0.5	5000	0.55	5000	0.6	5000	0.65	20	2.3
13	Support system for crops a. Banana	Rs.1.5 lakhs/ha	5	7.5	5	8.25	5	9	5	9.75	20	34.5
14	Banana Corm injector	Rs.300 / No.	10	0.03	10	0.033	10	0.036	10	0.039	40	0.138
15	Package for plant protection	Rs.3,000/ha	10	0.3	10	0.33	10	0.36	10	0.39	40	1.38
16	Farm waste shredder/Vegetable waste shredder	Rs.40,000/ No.	1	0.4	1	0.44	1	0.48	1	0.52	4	1.84
17	Humic acid/Effective E Microbes	Rs.400/litre	10 lit	0.04	10 lit	0.044	10 lit	0.048	10 lit	0.052	40 lit	0.184
18	Mango harvester	Rs.500 /No.	20	0.1	20	0.11	20	0.12	20	0.13	80	0.46
19	Support for betel vine	Rs.40,000 for 20 cents	4	1.6	-	-	-	-	-	-	-	1.6
20	District Level Farmers Workshop	Rs.400/ farmer / day	25	0.1	25	0.1	25	0.1	25	0.1	100	0.4
21	Inter State Exposure visit (5 days)	Rs.5,000/ farmer	25	1.25	25	1.25	25	1.25	25	1.25	100	5
22	10 hectare mega demo plot for the districts	Rs.25.00 lakhs each			1	25	-	-	-	-	-	25
	Total			**68.425**		**68.2745**		**52.9702**		**46.1929**		**235.863**

Pappireddipatti Block **(Rs in lakhs)**

Sl. No.	Activities	Unit cost	2008-09		2009-10		2010-11		2011-12		Total	
			Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount
1	Precision Farming		100	41.2	100	45.32	100	49.44	100	53.56	400	189.52
	Drip component	Rs.11,200										
	Input cost	Rs.25,000										
	Nursery	Rs.5,000										
2	Enterprising framers associations	Rs.25.00 lakhs each	1	25	-	-	-	-	-	-	1	25
3	Erection of net for production of disease free planting material of Tapioca	Rs.1.00 lakh / 300 Sq.m	1	1	1	1.1	1	1.2	1	1.3	4	4.6
4	Tractor mounted steam boiler for turmeric	Rs.50,000/ No.	2	1	2	1	2	1	2	1	8	4
5	Sales outlet points in districts (Rent and infrastructure	Rs.2.60 lakhs /No	-	-	-	-	-	-	-	-	-	0
6	Support system for Tomato	Rs.25000/ Ha	50	12.5	50	12.5	50	12.5	50	12.5	200	50
7	Plastic Crates for vegetable handling and transport	Rs.250/crate	2500	6.25	2500	6.25	2500	6.25	2500	6.25	10000	25
8	Bore well with casing pipe	Rs.1.5 lakh	10	15	10	16.5	10	18	10	19.5	40	69
9	Assistance for water soluble Fertilizers	Rs.15000/ Ha	50	7.5	50	7.5	50	7.5	50	7.5	200	30

Pappireddipatti Block Contd…. **(Rs in lakhs)**

Sl. No.	Activities	Unit cost	2008-09		2009-10		2010-11		2011-12		Total	
			Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount
10	Net House structure											
	a. Nursery & Vegetable production	Rs.1.00 lakh/300 Sq.m	5	5	5	5.5	5	6	5	6.5	20	23
11	Pandal for vegetable production	Rs.1.00 lakh/ha	5	5	5	5.5	5	6	5	6.5	20	23
12	Banana Bunch cover	Rs.10 piece	1000	1	1000	1.1	10,000	1.2	10,000	1.3	40,000	4.6
13	Support system for crops a. Banana	Rs.1.5 lakhs/ha	5	7.5	5	8.25	5	9	5	9.75	20	34.5
14	Banana Corm injector	Rs.300 / No.	20	0.06	20	0.066	20	0.072	20	0.078	80	0.276
15	Package for plant protection	Rs.3,000/ha	30	0.9	30	0.99	30	1.08	30	1.17	120	4.14
16	Farm waste shredder/Vegetable waste shredder	Rs.40,000/ No.	2	0.8	2	0.88	2	0.96	2	1.04	8	3.68
17	Humic acid/Effective E Microbes	Rs.400/litre	10 lit	0.04	10 lit	0.044	10 lit	0.048	10 lit	0.052	40 lit	0.184
18	Mango harvester	Rs.500 /No.	25	0.125	25	0.1375	25	0.15	25	0.1625	100	0.575
19	Support for betel vine	Rs.40,000 for 20 cents	4	1.6	-	-	-	-	-	-	4	1.6
20	District Level Farmers Workshop	Rs.400/ farmer / day	25	0.1	25	0.1	25	0.1	25	0.1	100	0.4
21	Inter State Exposure visit (5 days)	Rs.5,000/ farmer	25	1.25	25	1.25	25	1.25	25	1.25	100	5
22	10 hectare mega demo plot for the districts	Rs.25.00 lakhs each			-	-	-	-	1	25	1	25
	Total			**132.825**		**113.9875**		**121.750**		**154.5125**		**523.075**

Palacode Block **(Rs in lakhs)**

Sl. No.	Activities	Unit cost	2008-09		2009-10		2010-11		2011-12		Total	
			Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount
1	Precision Farming		60	24.72	60	27.192	60	29.664	60	32.136	240	113.712
	Drip component	Rs.11,200										
	Input cost	Rs.25,000										
	Nursery	Rs.5,000										
2	Enterprising framers associations	Rs.25.00 lakhs each	1	25	-	-	-	-	-	-	1	25
3	Erection of net for production of disease free planting material of Tapioca	Rs.1.00 lakh / 300 Sq.m	1	1	1	1.1	1	1.2	1	1.3	4	4.6
4	Tractor mounted steam boiler for turmeric	Rs.50,000/No.	1	0.5	1	0.55	1	0.6	1	0.65	4	2.3
5	Sales outlet points in districts (Rent and infrastructure	Rs.2.60 lakhs /No	1	2.6	-	-	-	-	-	-	1	2.6
6	Support system for Tomato	Rs.25000/ Ha	20	5	20	5	20	5	20	5	80	20
7	Plastic Crates for vegetable handling and transport	Rs.250/crate	1000	2.5	1000	2.75	1000	3	1000	3.25	4000	11.5
8	Bore well with casing pipe	Rs.1.5 lakh	2	3	2	3.3	2	3.6	2	3.9	8	13.8
9	Assistance for water soluble Fertilizers	Rs.15000/ Ha	30	4.5	30	4.5	30	4.5	30	4.5	120	18

Palacode Block Contd…. **(Rs in lakhs)**

Sl. No.	Activities	Unit cost	2008-09		2009-10		2010-11		2011-12		Total	
			Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount
10	Net House structure											
	a. Nursery & Vegetable production	Rs.1.00 lakh/300 Sq.m	2	2	2	2.2	2	2.4	2	2.6	8	9.2
11	Pandal for vegetable production	Rs.1.00 lakh/ha	2	2	2	2.2	2	2.4	2	2.6	8	9.2
12	Banana Bunch cover	Rs.10 piece	5000	0.5	5000	0.55	5000	0.6	5000	0.65	20	2.3
13	Support system for crops a. Banana	Rs.1.5 lakhs/ha	5	7.5	5	8.25	5	9	5	9.75	20	34.5
14	Banana Corm injector	Rs.300 / No.	10	0.03	10	0.033	10	0.036	10	0.039	40	0.138
15	Package for plant protection	Rs.3,000/ha	20	0.6	20	0.66	20	0.72	20	0.78	80	2.76
16	Farm waste shredder/Vegetable waste shredder	Rs.40,000/ No.	1	0.4	1	0.44	1	0.48	1	0.52	4	1.84
17	Humic acid/Effective E Microbes	Rs.400/litre	10 lit	0.04	10 lit	0.044	10 lit	0.048	10 lit	0.052	40 lit	0.184
18	Mango harvester	Rs.500 /No.	20	0.1	20	0.11	20	0.12	20	0.13	80	0.46
19	Support for betel vine	Rs.40,000 for 20 cents	1	0.4	-	-	-	-	-	-	1	0.4
20	District Level Farmers Workshop	Rs.400/ farmer / day	25	0.1	25	0.1	25	0.1	25	0.1	100	0.4
21	Inter State Exposure visit (5 days)	Rs.5,000/ farmer	25	1.25	25	1.25	25	1.25	25	1.25	100	5
22	10 hectare mega demo plot for the districts	Rs.25.00 lakhs each			1	25	-	-	-	-	1	25
	Total			**83.74**		**85.229**		**64.718**		**69.207**		**302.894**

Pennagaram Block **(Rs in lakhs)**

Sl. No.	Activities	Unit cost	2008-09		2009-10		2010-11		2011-12		Total	
			Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount
1	Precision Farming		50	20.6	50	22.66	50	24.72	50	26.78	200	94.76
	Drip component	Rs.11,200										
	Input cost	Rs.25,000										
	Nursery	Rs.5,000										
2	Enterprising framers associations	Rs.25.00 lakhs each	1	25	-	-	-	-	-	-	1	25
3	Erection of net for production of disease free planting material of Tapioca	Rs.1.00 lakh / 300 Sq.m	1	1	1	1.1	1	1.2	1	1.3	4	4.6
4	Tractor mounted steam boiler for turmeric	Rs.50,000/No.	1	0.5	1	0.55	1	0.6	1	0.65	4	2.3
5	Sales outlet points in districts (Rent and infrastructure	Rs.2.60 lakhs /No	-	-	-	-	-	-	-	-	-	-
6	Support system for Tomato	Rs.25000/ Ha	20	5	20	5	20	5	20	5	80	20
7	Plastic Crates for vegetable handling and transport	Rs.250/crate	300	0.75	300	0.825	300	0.9	300	0.975	1200	3.45
8	Bore well with casing pipe	Rs.1.5 lakh	5	7.5	5	8.25	5	9	5	9.75	20	34.5
9	Assistance for water soluble Fertilizers	Rs.15000/ Ha	30	4.5	30	4.5	30	4.5	30	4.5	120	18

Pennagaram Block **(Rs in lakhs)**

Sl. No.	Activities	Unit cost	2008-09		2009-10		2010-11		2011-12		Total	
			Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount
10	Net House structure											
	a. Nursery & Vegetable production	Rs.1.00 lakh/300 Sq.m	2	2	2	2.2	2	2.4	2	2.6	8	9.2
11	Pandal for vegetable production	Rs.1.00 lakh/ha	2	2	2	2.2	2	2.4	2	2.6	8	9.2
12	Banana Bunch cover	Rs.10 piece	5000	0.5	5000	0.55	5000	0.6	5000	0.65	20	2.3
13	Support system for crops a. Banana	Rs.1.5 lakhs/ha	5	7.5	5	8.25	5	9	5	9.75	20	34.5
14	Banana Corm injector	Rs.300 / No.	10	0.03	10	0.033	10	0.036	10	0.039	40	0.138
15	Package for plant protection	Rs.3,000/ha	15	0.45	15	0.495	15	0.54	15	0.585	60	2.07
16	Farm waste shredder/Vegetable waste shredder	Rs.40,000/ No.	1	0.4	1	0.44	1	0.48	1	0.52	4	1.84
17	Humic acid/Effective E Microbes	Rs.400/litre	10 lit	0.04	10 lit	0.044	10 lit	0.048	10 lit	0.052	40 lit	0.184
18	Mango harvester	Rs.500 /No.	20	0.1	20	0.11	20	0.12	20	0.13	80	0.46
19	Support for betel vine	Rs.40,000 for 20 cents	2	0.8	-	-	-	-	-	-	2	0.8
20	District Level Farmers Workshop	Rs.400/ farmer / day	25	0.1	25	0.1	25	0.1	25	0.1	100	0.4
21	Inter State Exposure visit (5 days	Rs.5,000/ farmer	25	1.25	25	1.25	25	1.25	25	1.25	100	5
22	10 hectare mega demo plot for the districts	Rs.25.00 lakhs each	1	25	-	-	-	-	-	-	1	25
	Total			**105.02**		**58.557**		**62.894**		**67.231**		**293.702**
	Total			**695.198**		**555.8115**		**591.0012**		**585.278**		**2427.289**

6.3 ANIMAL HUSBANDRY

6.3.1. Introduction

Being the drought prone district, Dharmapuri district often suffers at the hands of the vagaries of monsoons. Since most of the agricultural and horticultural activities are heavily dependent upon the rainfall, animal husbandry serves as the risk management options in the drought periods. The district has a cattle population of 3,97, 870 and provides an opportunity for the farmers to earn additional income through milk production, apart from helping the farmers in the farm operations. Sheep and goat population accounts for nearly 5.43 lakh animals in this district. Employment in Animal Husbandry is mostly based on cattle rearing and farm works. Sheep rearing is the main income oriented employment among the rural people. This yields a lumpsum short-term income to the people below poverty line. Dharmapuri district also has the poultry population of 15.5 lakh birds to serve as the alternate farm income generation activities.

A. Large Ruminants

Project - 1

i. Project Title: Feed and Fodder Development

ii. Abstract

Fodder deficiency is wide spread and in this drought prone Dharmapuri district it is about 91.0 percent. In spite 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.379.15 lakhs in four years.

iii. Budget (Rs. in lakhs)

Project	Total amount
1. Popularizing chaff cutter @ 1/Bl/yr for SHGs/elite farmers at 50 % of total cost of Rs 20,000 (DAH)	3.20
2. Fodder production by SHGs @ 10 acre/Bl/yr (DAH)	75.20
3. Establishment of 6 x 6 x 4 feet silo to ensile sugarcane tops at 75 % of total cost of Rs 15,000 (DAH)	44.80
4. Popularizing mineral mixture to improve livestock production @ 1kg/month at 100 % subsidy (DAH)	180.00
5. Supply of mineral mixture to the milch animals at subsidised cost (50%) @ 18 kg/ year (DDD)	30.00
6. Supply of by-pass protein feed to the milch animals (360kgs/ year/animal @ 50% subsidised cost of Rs.9/- per kg.) (DDD)	33.00
7. Chaff cutters for elite farmers (small type) @rs.20,000 as 100% grant (DDD)	1.20
8. Fodder development activities in farmers field at 100% grant (DDD)	11.75
Total	**379.15**

iv. Background / 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.

v. Project Rationale

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

vi. 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.

vii. Project Goal

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

viii. Project Components

- Popularizing chaff cutters by providing to SHG/Elite farmers at 50% of the total cost of Rs.0.20 lakh each. A total of 32 chaffers will be distributed at the rate of one per block per year to the total cost of Rs.3.20 lakhs.

- 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.3.500. This component will be implemented in 320 acres at the total cost of Rs.75.20 lakhs.

- 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 400 sugarcane farmers will be involved this project in 4 years at the total cost of Rs.44.80 lakhs.

- To popularize mineral mixture supplementation 12kg mineral mixture per year at the rate of 1kg per month will be supplied to a total of 30,000 cows in four years with 100% subsidy. The total cost for this proposal is Rs.180.0 lakhs. These programme will be implemented by the Department of Animal Husbandry.

- The Department of Dairy Department will distribute the mineral mixture to 6000 continuous milk pourers at the rate of 18kg for Rs. 500 for 4 years. The total cost will be Rs.30.00 lakhs.

- The Department of Dairy Development will distribute by – pass protein feed to high yielding milch animals (360kg/animal/year) at 50% subsidized cost of Rs.9/kg. A total of 1000 animals will be covered in 4 years at the total cost of Rs.33.00 lakhs.

- The Department of Dairy Department will distribute small sized 6 chaff cutters to elite farmers at 100% subsidy in the unit cost of Rs. 0.20 lakh each. The total cost will be Rs.1.20 lakhs.

- The Department of Dairy Department will establish fodder production in the land of milk pourers covering the total of 50 acres in 4 years at the cost of 11.75 lakhs.

ix. Project Cost and Financing

Unit Cost of Fodder Production

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 farm yard manure 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
	Total cost of cultivation of fodder per acre	**:**	**23,525.00**

Year wise and Component wise Budget Outlay

(Rs. in lakhs)

Project	2008-2009	2009-2010	2010-2011	2011-2012	Total amount
1. Popularizing chaff cutter @ 1/Bl/yr for SHGs/elite farmers at 50 % of total cost of Rs. 20,000 for 32 units (DAH)	0.80	0.80	0.80	0.80	3.20
2. Fodder production by SHGs @ 10 acre/Bl/yr, 8 blocks / year, totally 320 acres in 4 yrs. (DAH)	18.80	18.80	18.80	18.80	75.20
3. Establishment of 6 x 6 x 4 feet silo to ensile sugarcane tops at 75% of total cost of Rs 15,000 for 400 units (DAH)	11.20	11.20	11.20	11.20	44.80
4. Popularizing mineral mixture to improve livestock production @ 1kg/ month for one year in one block @ Rs.600/- per cow per year for 30000 cows for 4 years. (DAH)	45.00	45.00	45.00	45.00	180.00
5. Supply of mineral mixture to the milch animals at subsidised cost (50%) @ 18 kg/ year @ Rs. 500/- per cow / year for 6000 animals in 4 years (DDD)	7.50	7.50	7.50	7.50	30.00
6. Supply of by-pass protein feed to the milch animals (360kgs/ year/animal @ 50% subsidised cost of Rs.9/- per kg.) - Rs. 0.033 lakh per animal for 1000 animals in 4 years (DDD)	8.25	8.25	8.25	8.25	33.00
7. Chaff cutters for elite farmers (small type) @Rs.20,000 as 100% grant for 6 farmers in 4 years (DDD)	0.40	0.40	0.20	0.20	1.20
8. Fodder development activities in farmers field @ Rs. 0.235 lakh / acre for 50 acres in 4 years (DDD)	3.055	3.055	3.055	2.585	11.75
Total	**95.005**	**95.005**	**94.805**	**94.335**	**379.15**

x. Implementation Chart of the Project

Project	2008-2009	2009-2010	2010-2011	2011-2012
1. Popularizing chaff cutter for SHGs / elite farmers (DAH)	✓	✓	✓	✓
2. Fodder production by SHGs (DAH)	✓	✓	✓	✓
3. Establishment of 6 x 6 x 4 feet silo to ensile sugarcane tops (DAH)	✓	✓	✓	✓
4. Popularizing mineral mixture to improve livestock production (DAH)	✓	✓	✓	✓
5. Supply of mineral mixture to the milch animals (DDD)	✓	✓	✓	✓
6. Supply of by-pass protein feed to the milch animals (DDD)	✓	✓	✓	✓
7. Chaff cutters for elite farmers (small type) - DDD	✓	✓	✓	✓
8. Fodder development activities in farmers field (acre) – (DDD)	✓	✓	✓	✓

The total costs of the project works out to Rs.379.15 lakhs as could be incurred from table, above.

xi. Reporting

Concerned project implementing agency will report the progress to respective financial authorities.

Project - 2

i. Project Title : Genetic Upgradation

ii. Abstract

The population of buffalo is dwindling in this district due to reproductive Problems and long inter-calving 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. The project will be implemented by both the Department of Dairy Development and Department of Animal Husbandry at a total cost of Rs.173.60 lakhs in four years. The budget requirement is Rs.173.60 lakhs.

iii. Background / 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 inter-calving 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.

iv. 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.

v. Project Strategy

- Identification and tagging of breedable cattle and buffaloes.
- Demonstration of heat synchronization followed by Artificial Insemination to improve the conception rate.
- Demonstrating the effect of supplemental feeding to the buffalo calves on their economic traits.

vi. Project Goals

- To improve the conception rate and reduce intercalving period in buffaloes.
- To demonstrate improvement in economic traits on account of proper nutrition to buffalo calves.

vii. 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 1.02 lakhs 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.20.40 lakhs for 1 year. This component will be implemented both by the Department of Animal Husbandry and Department of Dairy Development.

The Indigenous cattle and buffaloes totaling 9200 to cover about 10% of population at the rate of 2300 per year will be subjected 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.64.40 lakhs will be utilized in 4 years.

In the buffalo calves development programme at the rate of 150 calves per year a total of 600 calves of either sex will be supplied with supplemental concentrate feed upto 32 months age at 100% subsidy. The total cost will be Rs.88.80 lakh. These components will be implemented by the Department of Dairy Development.

viii. Project Cost and Financing

(Rs. in lakhs)

Project	2008-2009	2009-2010	2010-2011	2011-2012	Total amount
1. Identification and traceability of breedable bovine population @ Rs. 20 / animal for 102000 animals (DAH and DDD)	20.40	0	0	0	20.40
2. Programmed breeding indigenous cattle & buffalo to increase conception rate @ Rs.700 / animal for 9200 animals in 4 years (DDD)	16.10	16.10	16.10	16.10	64.40
3. Buffalo calf development programme - 150 calves / year, totally 600 calves for 4 years @ Rs. 14.800 per calf – (DDD)	22.20	22.20	22.20	22.20	88.80
Total	**58.70**	**38.30**	**38.30**	**38.30**	**173.60**

ix. Implementation Chart of the Project

Project	2008-2009	2009-2010	2010-2011	2011-2012
1. Identification and traceability of breedable bovine population (DAH & DDD)	✓			
2. Programmed breeding of Indegenous cattle and Buffaloe to increase conception rate (DDD)	✓	✓	✓	✓
3. Buffaloe calves Development Programme (DDD)	✓	✓	✓	✓

x. Reporting

Concerned project implementing agency will report the progress to the respective financial authorities.

Project - 3

i. Project Title : Improvement in Livestock Health Services

ii. Abstract

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 Mobile 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. The total cost of this proposal is Rs. 174.78 lakh in 4 years and will be implemented by the Department of Animal Husbandry. The budget outlay for the project is Rs.174.77 lakhs.

iii. Background / Problem Focus

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 infestations 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.

iv. Project Rationale

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.

v. Project Strategy

- Providing foolproof off–campus Veterinary facilities through mobile veterinary clinics
- Strengthening of existing Animal Disease Investigating unit as Mobile Veterinary Diagnostic Laboratory
- Renovation of existing Veterinary dispensaries to provide on–campus quality Veterinary service to Livestock

vi. Project Goal

- To achieve timely disease diagnosis and control of diseases even is inaccessible remote areas.
- To ensure better surveillance and prevention of disease out break.
- To minimize economic loss in Livestock sector due to diseases.

vii. Project Components

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

- Establishment of mobile veterinary clinics having equipments like surgical kit, Obstetrical kit, Binocular microscopes, Liquid Nitrogen container, Thermos flask and a Bolero jeep. For each unit diesel worth of Rs 45000 will be provided. The total cost will be Rs 5.832 to each unit and the total cost will be Rs.11.66 lakhs. The staff for this will be sourced from the available manpower in the department.

- Establishment of Mobile Veterinary Diagnostic Laboratory containing diagnostic equipments, refrigerator, centrifuge, microscope and other equipments to conduct postmortem examinations fitted in a vehicle the total cost will be Rs.12.00 lakh.

- Renovation of existing 23 Veterinary dispensaries with basic facilities like fencing, bore wells water troughs and minor repair works at the cost of Rs 5.00lakh for each dispensary at a total cost of Rs 115.00 lakh.

viii. Project Cost and Financing

(Rs. in lakhs)

Project	2008-2009	2009-2010	2010-2011	2011-2012	Total amount
1. Control of parasitic diseases through treatment to enhance vaccine response @ Re.1/sheep or goat and Rs.4/calf below 1 year @ Rs.9.0275 lakhs/year – (89949 calves, 266720 sheep and 277311 goat) - (DAH)	9.0275	9.0275	9.0275	9.0275	36.11
2. Mobile veterinary clinics @ Rs.5.832 lakhs/unit (Jeep – Rs. 4.75 lakhs, Equipments – Rs. 0.30 lakh, LN2 container large and small – Rs. 0.35 lakh, Recurring Expenditure - Rs. 0.43 lakh) - 2 units totally (DAH)	11.66	0	0	0	11.66
3. Mobile veterinary diagnostic laboratory @ Rs.12.00 lakhs/unit (Vehicle - Rs.11.00 lakhs, microscope - Rs.0.50 lakh, refrigerator - Rs.0.25 lakh, centrifuge – Rs.0.15 lakh, post mortem kits and other chemicals and reagents - Rs.0.10 lakh) (DAH)	12.00	0	0	0	12.00

(Rs. in lakhs)

Project	2008-2009	2009-2010	2010-2011	2011-2012	Total amount
4. Renovation of existing Veterinary Dispensaries with fencing, water troughs, bore-wells, minor repair works etc. @ Rs.5.00 lakhs / institution in 23 Veterinary Dispensaries (DAH)	115.0	0	0	0	115.00
Total	**147.69**	**9.03**	**9.03**	**9.03**	**174.77**

ix. Implementing Chart of the Project

Project	2008-2009	2009-2010	2010 – 2011	2011-2012
Control of parasitic disease through treatment (DAH)	✓	✓	✓	✓
Mobile Veterinary Clinic (DAH)	✓			
Mobile Veterinary diagnostic Laboratory (DAH)	✓			
Renovation of existing Veterinary Dispensaries (DAH)	✓			

x. Reporting

Concerned project implementing agency will report the progress to the respective financial authorities.

Project - 4

i. Project Title: Improvement of Infrastructure for Milk Procurement

ii. Abstract

Current practice of laborious, time consuming and unhygienic hand milking of high yielders, ensuring 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 50 machines will be supplied to the milk pourers 4 years. For milk weighment electronic balances will be provided to 180 milk Co-operatives with 100% subsidy. P.C. based Automatic Milk collection Station will be installed in 10 milk Co-operatives. A total 20 dormant milk Co-operatives will be revived by providing basic essential infrastructure. The Project will be implement by the Department of Dairy Development at a total cost of Rs.77.10 lakh.The budget requirement is Rs.77.10 lakhs.

iii. Background / Problem Focus

- 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.

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

- Less 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.

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

iv. Project Rationale

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

- 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.

- 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.

- 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.

v. Project Strategy

- Popularizing machine milking by providing portable milking machine to a total of 50 milk pourers in 4 years period with 100% subsidy.

- Providing electronic milk weighing machines to a total of 180 Co-operative milk societies procuring more than 500 lt milk per day.

- Providing P.C. based Automatic Milk collection Station facility to a total of 10 milk producers Co-operative societies procuring more than 1000 lt per day.

- Revival of a total of 20 hitherto dormant but potential milk societies by providing basic and essential milk procuring infrastructure.

vi. Project Goals

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

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

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

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

vii. Project Components

- Supply of Portable simple milking machine costing Rs.0.18 lakh each to 50 milk pourers at 100% subsidy.

- Supply of electronic milk weighing machines costing Rs.0.17 lakh each to 180 Co-operative milk societies.

- 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 10 Co-operative milk societies.

- Reviving 20 dormant but potential milk societies each at the cost of Rs.1.00 lakh.

viii. Project Cost and Financing

(Rs. in lakhs)

Project	2008-2009	2009-2010	2010-2011	2011-2012	Total amount
1. Portable milking machines for farmers @ Rs. 0.18 lakhs/ unit for 50 units in 4 years (DDD)	3.60	1.80	1.80	1.80	9.00
2. Milk weighing machine for milk producers co-op.societies @ Rs. 0.17 lakhs/ unit for 180 units in 4 years (DDD)	7.65	7.65	7.65	7.65	30.60
3. P.C.based automatic milk collection stations to IDF villages milk producers cooperative societies @ Rs. 1.75 lakhs/ unit for 10 units in 4 years (DDD)	7.00	3.50	3.50	3.50	17.50
4. Revival of dormant MPCS @ Rs. 1.00 lakh/ unit for 20 units in 4 years (DDD)	5.00	5.00	5.00	5.00	20.00
Total	**23.25**	**17.95**	**17.95**	**17.95**	**77.10**

ix. Implementation Chart of the Project

Project	2008-2009	2009-2010	2010-2011	2011-2012
1. Supply of Portable Milking machine for farmers. (DDD)	✓	✓	✓	✓
2. Provision of electronic milk weighing machine for Co-operative milk societies (DDD)	✓	✓	✓	✓
3. Provision of P.C based AMS for Co-operative milk societies (DDD)	✓	✓	✓	✓
4. Revival of dormant Co-operative milk societies (DDD)	✓	✓	✓	✓

x. Reporting

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

Project - 5

i. Project Title : Strengthening the Infrastructure for Milk Processing

ii. Abstract

The unhygienic handling of milk by the milk men and unclean milk production by few milk pourers due to lack of awareness introduces bacterial contamination in fluid milk. Further the odd hour milking and more time taken for transporting the contaminated milk to processing unit increases the bacterial load in milk and escalate the processing cost. This project aims to check the bacterial load in procured fluid milk at the milk collection centres and processed packed milk at retail ends. It further aims at converting the excess fluid milk to value added products. This project proposes to improve the infrastructure facilities both at Co-operative milk societies and District Co-operative Milk Producers Federation Dairy to achieve the above aims. The proposal includes establishing 5000 litre capacity bulk milk cooler at villages, walk –in cooler at retail end, facility to manufacture ice-cream, milk khoa and product production and delivery system at a total cost of Rs.66.28 lakhs. The Department of Dairy Development will implement this project. The budget outlay worked out to Rs.66.28 lakhs.

iii. Problem Focus

- The District of Dharmapuri Producers 0.82 lakh litre of milk daily through 341 number of Co-operative Societies spread over the district.
- 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.
- It is also necessary to convert the excess fluid milk into products which are in demand.

iv. Project Rationale

In the District of Dharmapuri about 2.32 lakh liters 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.

v. Project Strategy

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

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

- 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.

vi. Project Goal

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

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

vii. Project Components

- 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.

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

- Establishing two Milk Khoa manufacturing units at the total cost of 1.54 lakh in 2 years period at the District Co-operative Milk Producers Union Dairy.

- Establishing two ice cream manufacturing units at the total cost of Rs.2.24 lakh in 2 years period at the District Co-operative Milk Producers Union Dairy.

- Establishing a product production and delivery facility at the total cost of Rs.2.50 lakh at the District Co-operative Milk Producers Union Dairy.

viii. Project Cost and Financing

(Rs. in lakhs)

Project	2008-2009	2009-2010	2010-2011	2011-2012	Grand total
Bulk milk cooler @ Rs. 30.00 lakhs/ unit (DDD)	30.00	0	0	0	30.00
Walk-in coolers @ Rs. 30.00 lakhs/ unit (DDD)	30.00	0	0	0	30.00
Manufacturing facilities for milk khoa @ Rs. 0.77 lakh/ unit for 2 units (DDD)	0.77	0.77	0	0	1.54
Manufacturing facilities for ice cream @ Rs. 1.12 lakhs/ unit for 2 units (DDD)	1.12	1.12	0	0	2.24
Product production and delivery facility Rs. 2.50 lakhs/ unit (DDD)	2.50	0	0	0	2.50
Total	**64.39**	**1.89**	**0**	**0**	**66.28**

ix. Implementing Chart of the Project

Project	2008-2009	2009-2010	2010-2011	2011-2012
1. Establishing Bulk Milk Cooler (DDD)	✓			
2. Establishing Walk in Cooler (DDD)	✓			
3. Manufacturing facility for Milk Khoa (DDD)	✓	✓		
4. Manufacturing facility for ice-cream (DDD)	✓	✓		
5. Product Production and Delivery facility (DDD)	✓			

x. Reporting

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

B. Small Ruminants

Project - 6

i. Project Title : Establishment of Quality Germ plasm Production Centres

ii. 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 encourage the SHG / Elite farmers to start a total of 16 ram / buck production centres by providing 50% subsidy in total cost of Rs.1.00 lakh in Dharmapuri district in 4 years. The Project also 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 project also proposes to start a model Goat breeding unit by the Tamil Nadu Veterinary and Animal Sciences University in its Training centre located at Dharmapuri to educate the SHG / Elite farmers who

venture in ram / buck production. The Department of Animal Husbandry and Tamil Nadu Veterinary and Animal Sciences University will implement the project at the total cost of Rs.21.14 lakhs.the budget outlay is Rs.21.14 lakhs.

ii. Background / Problem Focus

The district of Dharmapuri possesses 2.66 lakh sheep and 2.77 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 germ plasm. However if the SHG / tribes/elite farmers are encouraged to establish germ plasm 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

- To supply quality germ plasm to needy farmers.
- To avoid inbreeding
- To increase meat production.

vi. Project Components

- Providing 50 per cent subsidy in the total cost of Rs.1.00 lakh to start 20+1 ram / buck production centres by SHG /Elite farmers / tribes at the rate of 2 units per block

- 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 16 animals will be supplied in first year of the project itself at the total cost of Rs.0.64 lakh.

- Establishing model goat breeding unit at the University Training and Research Centre, Dharmapuri training those who start breeding farm and supply of quality germ plasm.

Cost of Does	: 250 @ Rs.2500	:	6.25
Cost of Bucks	: 12 @ Rs.3000	:	0.36

Land Development

Fencing	:	0.75
Wasteland and Pasture Production	:	1.25
Renovation of Civil structure	:	1.25

Minor Irrigation Structures

Bore wells deepening pipeline etc.,	:	0.52

Equipments

Feed Troughs, Water pails	:	0.10
Cost of Fodder cultivation	:	1.00

Working Capital

Wages and Vety. Aid	:	0.57
Feeding for One cycle	:	0.45
Total	**:**	**12.50**

vii. Project Cost and Financing

Unit cost for quality ram/buck production centre		**Rs.in lakhs**
Cost of animals (20+1)	:	0.53
Land Development	:	0.06
Renovation of Civil structure	:	0.14
Minor irrigation	:	0.05
Equipments	:	0.04
Fodder Production	:	0.10
Working Capital	:	0.08
Total	**:**	**1.00**

(Rs. in lakhs)

Project	**2008-2009**	**2009-2010**	**2010-2011**	**2011-2012**	**Total amount**
1. Quality ram / buck production centre for distribution of quality germplasm by SHGs @ 2/Bl. 50 % subsidy of the total unit cost of Rs. 1.00 lakh for 16 units (DAH)	8.00	0	0	0	8.00
2. Supply of rams / bucks to SHGs / Elite farmers @ Rs. 4000 for 16 animals - 2/Bl (DAH)	0.64	0	0	0	0.64
3. Establishment of Model Goat breeding unit for Demonstration and distribution of germ plasm at VUTRC @ Rs.12.50 lakhs/unit (TANUVAS)	12.50	0	0	0	12.50
Total	**21.14**	**0**	**0**	**0**	**21.14**

viii. Implementing Chart of the Project

Project	2008-2009	2009-2010	2010-2011	2011-2012
1. Quality ram / buck production centre for distribution of quality germ plasm by SHGs @ 2/Bl (DAH)	✓			
2. Supply of rams / bucks to SHGs / Elite farmers @ 2/Bl (DAH)	✓			
3. Establishment of Model Goat breeding unit for Demonstration and distribution of germ plasm at VUTRC (TANUVAS)	✓			

ix. Reporting

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

Project - 7

i. Project Title : Popularization of Scientific Small Ruminant Farming Systems

ii. Abstract

The District of Dharmapuri possesses 5.43 lakh heads of sheep and goat which are maintained only on extensive system. In this system of management, the animals get good nutrition only for 3-4 months in a year and later, particularly during summer, the farmers resort to distress sale for want of fodder. The growth rate, dressing percentage and meat quality in these animals will be poor and fetch poor return. The semi intensive and Intensive systems of management have been evolved as an alternate to extensive system in which the animals get year round nutrition, good growth rate, dressing percentage, meat quality etc., This project aims to educate the farmers and popularize the semi-intensive and intensive management systems. The SHG/Tribes/Elite farmers who opt for semi intensive system of management for 20+1 unit will be given subsidy of Rs.0.25 lakh in the total cost of Rs.0.50 lakh per unit by waiving the margin money and

bank loan while availing the bankable schemes. A total of 200 units (20+1) will be established in 4 years at the total cost of Rs.50.00 lakhs. The project also proposes to popularize the prime lamb/kid production under intensive system of management by providing 50% subsidy in the total cost of Rs.0.84 lakhs to SHG / Tribes / Elite farmers. Initially one unit will be established in each block. Each unit will have 0+40 ram lambs / he kids unit in 2 batches of 0+20 each. The Department of Animal Husbandry will implement these projects at the total cost of Rs.53.36 lakhs in one year. The budget outlay workes is Rs.17.60 lakhs

iii. Background / Problem Focus

The small ruminants in this district are maintained on Extensive system in which the animals receive good nutrition only for 3-4 months of monsoon and later due to poor nutrition, their production goes down. Farmers resort to distress sale of their stock. This necessitates popularizing alternate systems of small ruminant production.

iv. Project Rationale

By switching over to Semi intensive or Intensive systems of management with scientific interventions the animals receive year – round good nutrition and maintain good production potential with better cost benefit ratio. In these systems the available crop residues could also be effectively utilized.

v. Project Strategy

Semi Intensive System

The SHG / Tribes will be encouraged to start semi intensive small ruminant farming. The margin money and interest bearing loan to start the farm will be covered under subsidy from this project while availing bankable schemes.

For 20+1 unit the total cost will be Rs.0.50 lakh of which margin money and bank loan will be Rs.0.125 and 0.125 lakh respectively. The beneficiaries at the rate of 25 per block will be covered and thus a total of 200 farms will be started in 4 years.

Intensive System

Weaned ram lamb / kids will be intensively manage for 180 days and finished for meat purpose in prime ram lamb / prime he kid production system. The number of units (0+40 in 2 batches of 0+20 each) will be one per block with 50% subsidy in total cost of Rs.0.84 lakh.

vi. Project Goal

To popularize scientific and proven alternate management systems like semi-intensive and intensive systems in small ruminants production with improved cost benefit ratio.

vii. Project Components

Providing Rs.0.25 lakh as subsidy in the bank loan (0.125 lakh) and Margin money (0.125 lakh) while availing bankable schemes to start 20+1 unit under semi-intensive system to SHG/Tribes selected at the rate of 25 per block.

Providing 50% incentive in the total cost of Rs.0.84 lakh to start Prime ram lamb / he kid production centre in intensive management system. Each unit will have 0+40 in 2 batches of 0+20 grown each batch for 6 months. The total beneficiaries will be one per block.

viii. Project Cost and Financing

Unit cost for 0+40 lambs/kids		**Rs. in lakhs**
Cost of 20x2 batch lambs / kids	:	0.32
Housing 20 x 15sq.ft x Rs. 80	:	0.24
Equipments	:	0.04
Manual Chaffer (150-200kg /hr)	:	0.10
Feed cost (0.150 kg x180dx40xRs.8)	:	0.05
Fodder cultivation in 0.25 ac	:	0.05
Miscellaneous	:	0.04
Total	**:**	**0.84**

(Rs. in lakhs)

Project	2008-2009	2009-2010	2010-2011	2011-2012	Total amount
1. Semi- intensive goat farming to supply germ plasm by SHGs @ 25 / block @ Rs.0.50 lakh/ unit – 50 % subsidy. Rs. 0.25 lakhs for 200 units in four years (DAH)	12.50	12.50	12.50	12.50	50.00
2. Prime ram lamb / he Kid production (0+20 units in 2 batches (0+40) at 50% of total cost of Rs 0.84 lakh for 8 units (DAH)	3.36	0	0	0	3.36
Total	**15.86**	**12.50**	**12.50**	**12.50**	**53.36**

ix. Implementation Chart of the Project

Project	2008-2009	2009-2010	2010-2011	2011-2012
1. Semi- intensive goat farming to supply germ plasm by SHGs @ 25 / block @ Rs.0.50 lakh/ unit – 50 % subsidy. Rs. 0.25 lakhs for 200 units in four years (DAH)	✓	✓	✓	✓
2. Prime ram lamb / he Kid production (0+20 units in 2 batches (0+40) at 50% of total cost of Rs 0.84 lakh for 8 units (DAH)	✓			

x. Reporting

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

C. Poultry

Project - 8

i. Project Title: Popularizing Technology Backed Backyard Poultry

ii. Abstract

The Desi eggs produced by the backyard poultry are in great demand. However the backyard poultry system is vanishing due to non-application of technological interventions and intensive farming system with improved birds. Even today the existing backyard poultry are the major source of cash flow to rural women. This project aims to popularize technology backed backyard poultry systems with improved strains of poultry and protect the existing backyard birds with health cover. This project proposes to establish (9+1) backyard poultry units at 50% subsidy to 1600 rural house holds in 4 years and provide complete health care to 1.60 lakh existing backyard poultry in 4 years. The Project will be implemented by the Department of Animal Husbandry at the total cost of Rs.17.60 lakh.

iii. Background / Problem Focus

The district of Dharmapuri producers 148 lakh Desi eggs annually. In recent times there is great demand for Desi eggs which are sold at premium rate. The Desi eggs are produced only through backyard poultry. But lack of improved strains and non-application of Technology interventions seriously affect the backyard poultry and vis-à-vis egg production.

iv. Project Rationale

Introduction of improved stains and adoption of scientific interventions like phosphorus supplementation and energy source like grain are proved to enhance the production of backyard poultry. At the field level inadequate health care due to lack awareness results in significant level of mortality. Thus by providing supplemental feed and regular health cover, the back yard Poultry will be a very successful venture suited for rural women to sustain her livelihood.

v. Project Strategy

- Providing 9+1 unit of improved poultry strain suited for backyard at the rate of 200 units per block and providing Technology back up to improve production.

- For the existing birds complete health cover like vaccination and deworming will be provided. A total of 0.40 lakh birds will be covered each year for a total period of 4 years.

vi. Project Goal

- To Popularize Technology backed backyard Poultry units of improved strains among rural women.

- To improve the cash flow among rural women through regular sale of Desi eggs at premium rate.

vii. Project Components

- A total of 1600 rural house holds will be selected at the rate of 400 per year and supplied with 9+1 backyard unit at 100% subsidy.

- The Technology interventions like legume fodder / wheat bran supplementation, white ant feeding, modified egg storage system etc., will be provided for adoption.

- The existing desi birds will be given complete health cover through regular deworming and vaccinations.

viii. Project Cost and Financing

(Rs. in lakhs)

Project	2008-2009	2009-2010	2010-2011	2011-2012	Total amount
1. Rural livelihood security through Technology backed backyard poultry (9+1) @ Rs.1000/ unit for 400 units/ year for 4 years (DAH)	4.00	4.00	4.00	4.00	16.00
2. Health care for existing Desi birds in backyard Re.1/ bird for 40000 birds/year for 4 years (DAH)	0.40	0.40	0.40	0.40	1.60
Total	**4.40**	**4.40**	**4.40**	**4.40**	**17.60**

ix. Implementation Chart of the Project

Project	2008-2009	2009-2010	2010-2011	2011-2012
1. Rural livelihood security through Technology backed backyard poultry (DAH)	✓	✓	✓	✓
2. Health care for existing Desi birds in backyard (DAH)	✓	✓	✓	✓

x. Reporting

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

Project - 9

i. Project Title: Strengthening the Infrastructure to Promote Extension Services

ii. Abstract

Extension services are the linkages between researchers and farmers for transfer of technologies. In order to document the transferable technologies and transferring the same in a farmer – friendly mode the existing out-dated technology transfer aids be replaced with updated modern gadgets. The Project proposes to adopt one village each year to establish it as Model Livestock Village which will act as an open –air laboratory for other farmers to visit and learn. The model village will be developed to have self – sufficiency in fodder production and adopt new scientific technologies in farming systems. The Livestock in this village will have optimum and commendable Productive and Reproductive traits with zero disease outbreak. The entire household possessing Livestock will be trained on livestock farming.

The project also proposes to strengthen the existing audio visual aids in the training centre with modern, updated gadgets to articulate the message effectively to farmers. The project further proposes to improve the learning atmosphere in the existing training centres by undertaking essential renovation works. While the model Livestock villages establishment will be for all the four years, other infrastructural developments will be completed in the first year itself. The Tamil Nadu Veterinary and Animal Sciences University will implement this project through its Training Centre located at Dharmapuri with total cost of Rs.66.00 lakhs for 4 years.

iii. Background / Problem Focus

Extension services are the tools for Technology transfer in time to improve the socio economic condition of farmers. For better services, the extension unit need better audio visual aids, demonstration units and other infrastructure to provide conducive atmosphere for the farmers to learn.

iv. Project Rationale

Documentation of the Technologies, remoulding the Technologies in farmers friendly mode and transferring the same to farmers in an acceptable way requires modern electronic infrastructure.

v. Project Strategy

- Establishing Model Livestock Village for demonstration to farmers. This will act as an open laboratory for farmers to learn. The village will have self sufficiency in fodder, High yielding animals, integrated farming system, Livestock information centre etc.

- Strengthening the training equipments in the existing Training centres with modern updated electronic gadgets.

- Renovating the existing training hall to provide comfort and conducive environment for learning by farmers.

vi. Project Goal

- To document transferable Technologies and transfer in farmers – friendly mode for adoption.

- To provide conducive learning atmosphere to farmers in Training centres.

vii. Project Components

- One village in each year will be adopted and developed in to a model livestock village which will have the followings:
    - Micro level fodder units
    - Existing cows will be managed to have optimum productive and reproductive trails

- Intensive scientific rearing of sheep and goat units
- Genetic upgradation of ND goats with Artificial insemination with Boer semen
- Integrated Livestock farming systems
- Clean milk production
- Farming systems with other poultry species and
- Technology backed backyard poultry

- Strengthening of Training equipments for conducting capacity building and Technology dissemination programmes at the Veterinary University Training Centre, Dharmapuri with Slide Projector, Projection screen, Digital camera, Lap Top, LCD Projector, DVD Player, Vehicle mounted with Television and other audio visual aids for conducting off-campus Training and village level campaigns

- The existing Training hall at the Veterinary University Training and Research Centre, Dharmapuri will be renovated to provide conducive learning atmosphere to farmers at a total cost of Rs. 20.0 lakhs.

Renovation of VUTRC, Dharmapuri

1. Removing damaged roof slab and providing RCC roof, Repair of existing toilets for Trainees and special repairs to the training hall, demonstration hall, office building	:	Rs.12.00 lakh
2. Renovation of Compound wall	:	Rs. 8.00 lakh
Total	**:**	**Rs.20.00**

viii. Project Cost and Financing

(Rs. in lakhs)

Project	2008-2009	2009-2010	2010-2011	2011-2012	Grand total
1. Establishment of model livestock village to educate farmers @ Rs. 9 lakhs / unit in 4 villages (TANUVAS)	9.00	9.00	9.00	9.00	36.00
2. Strengthening of Training equipments for Technology dissemination at VUTRC with Slide Projector, Projection screen, Digital camera, Lap Top, LCD Projector, DVD Player, Vehicle mounted with Television and other audio visual aids (TANUVAS)	10.00	0	0	0	10.00
3. Renovation of Training hall at VUTRC (TANUVAS)	20.00	0	0	0	20.00
Total	**39.00**	**9.00**	**9.00**	**9.00**	**66.00**

ix . Implementation Chart of the Project

Project	2008-2009	2009-2010	2010-2011	2011-2012
1. Establishment of model livestock village to educate farmers (TANUVAS)	✓	✓	✓	✓
2. Strengthening of Training equipments for Technology dissemination at VUTRC (TANUVAS)	✓			
3. Renovation of Training hall at VUTRC (TANUVAS)	✓			

x. Reporting

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

Project - 10

i. Project Title: Capacity Building and Technology Transfer Programmes

ii. Abstract

Extension services provide the much needed information resource and develop the skill of Livestock growers to adopt newer technologies. Capacity building is a continuous process having the components of Training, Village level meetings, Demonstrations, Learning by seeing, etc.,The project aims to update the livestock growers with recent scientific interventions and develop their skill to adopt them. 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.34.90 lakhs. 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 Dharmapuri, 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.

iii. Budget

(Rs. in lakhs)

Project	**Total amount**
1. Training programmes and village level campaign on livestock (TANUVAS)	13.20
2. Study tour of farmers to livestock and poultry research station @ 50 persons/batch with the cost of Rs 0.25 lakh/batch (TANUVAS)	4.00
3. Farmers study tour @ Rs.5000/- per farmer (DDD)	7.50
4. Skill development for technical staff (DDD)	7.00
5. Orientation training / workshop for milk producers at society level (DDD)	3.20
Total	**34.90**

iv. Background / 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.

v. 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.

vi. Project Strategy

- Conducting off - campus and on -campus Training programmes and village level campaigns on scientific system of Livestock farming.
- Conducting skill development programmes for Technical staff.
- Conducting farmers study tour to expose them to various organized farms and Research Stations.
- Providing orientation Training / Workshop for milk pourers at society level.

vii. Project Goal

- To update the Livestock growers with recent scientific interventions
- To provide a platform to Livestock growers for interaction with researchers to update their skills.
- To Transfer viable Technologies for adoption to increase Livestock Production.

viii. Project Components

- Conducting 32 Training programmes and 12 village level campaigns on Livestock Production to farmers at a total cost of 13.20 lakhs.
- Conducting exposure visit to Research Stations in 4 batches of 50 farmers each in a year at a total cost of Rs. 4.00 lakhs.
- Conducting study tour to 40 continuous milk pourers annually to organized dairy farms and Dairies at a total cost of Rs.7.50 lakhs.
- Conducting skill development programmes for 140 Technical staff of milk societies in four years at a total cost of Rs.7.00 lakhs.
- Conducting 4 workshops annually for 4 years to milk pourers at society level at a total cost of Rs.3.20 lakhs.

ix. Project Cost and Financing

(**Rs. in lakhs)**

Project	**2008-2009**	**2009-2010**	**2010-2011**	**2011-2012**	**Total amount**
Training programmes and village level campaign on livestock @ Rs. 3.30 lakhs for conducting 8 training programmes and 3 village level campaigns per year for 4 years (TANUVAS)	3.30	3.30	3.30	3.30	13.20
Study tour of farmers to livestock and poultry research station @ 50 persons/batch with the cost of Rs 0.25 lakhs/batch 4 batches per year for 4 years (TANUVAS)	1.00	1.00	1.00	1.00	4.00
Farmers study tour @ Rs.5000/- per farmer for 150 farmers (DDD)	2.00	2.00	2.00	1.50	7.50
Skill development for technical staff @ Rs.5000/- per staff for 140 staffs (DDD)	2.00	2.00	2.00	1.00	7.00
Orientation training / workshop for milk producers at society level @ Rs.0.2 lakhs/ training for 4 trainings / year for 4 years (DDD)	0.80	0.80	0.80	0.80	3.20
Total	**9.10**	**9.10**	**9.10**	**7.60**	**34.90**

x. Implementation Chart of the Project

Project	2008-2009	2009-2010	2010-2011	2011-2012
1. Training programmes and village level campaign on livestock (TANUVAS)	✓	✓	✓	✓
2. Study tour of farmers to livestock and poultry research station @ 50 persons/batch with the cost of Rs 0.25 lakh/batch (TANUVAS)	✓	✓	✓	✓
3. Farmers study tour @ Rs.5000/- per farmer (DDD)	✓	✓	✓	✓
4. Skill development for technical staff (DDD)	✓	✓	✓	✓
5. Orientation training / workshop for milk producers at society level (DDD)	✓	✓	✓	✓

xi. Reporting

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

Table 6.3 Budget outlay for Animal Husbandry Sector in Dharmapuri District

S. No	Scheme Components	Unit Cost	2008-2009		2009-2010		2010-2011		2011-2012		Grand Total	
			Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost
	Cattle and Buffalo											
1	Popularizing chaff cutter @ 50% of the total cost of Rs.20,000 1/B1/yr for SHG's elite farmers	0.1	8	0.8	8	0.8	8	0.8	8	0.8	32	3.20
2	Fodder production by SHG's @ 10 acre B1/yrin irrigated condition	0.235	80	18.8	80	18.8	80	18.8	80	18.8	320	75.20
3	Establishment of 6x6x4 feet silo to ensile sugarcane tops @ 75% of the total cost of Rs.15,000	0.112	100	11.2	100	11.2	100	11.2	100	11.2	400	44.80
4	Popularising mineral mixture to improve livestock production @1kg/month /cow	0.006	7500	45	7500	45	7500	45	7500	45	3000	180.00
5	Establishment of Mobile Veterinary Clinic _	5.832	2	11.66	0	0	0	0	0	0	2	11.66
6	Control of parasitic diseases through treatment to enhance vaccine response	0	0	9.0275	0	9.0275	0	9.0275	0	9.0275	0	36.11
7	Establishment Mobile Veterinary Diagnostic laboratory	12	1	12	0	0	0	0	0	0	1	12.00
8	Identification and traceability of breedable bovine population	0.0002	102000	20.4	0	0	0	0	0	0	102000	20.40

Table 6.3 Contd….

S. No	Scheme Components	Unit Cost	2008-2009		2009-2010		2010-2011		2011-2012		Grand Total	
			Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost
	Poultry											
1	Popularizing technology backed backyard poultry(9+1) units 200/B1/	0.005	800	4	800	4	800	4	800	4	3200	16.00
2	Health care for existing desi birds in backyard	0.00001	40000	0.4	40000	0.4	40000	0.4	40000	0.4	160000	1.60
	Sheep & Goat											
1	Providing livelihood opportunities through prime lamb/ kid production by intensive system at 50% subsidy in total cost of Rs.0.84 lakh per unit of (0+40) @ 1unit / block	0.42	8	3.36	0	0	0	0	0	0	8	3.36
2	Quality ram / buck production centre (20+1) for distribution of quality germ plasm by SHGs 2/Bl/ at 50% subsidy of total cost of Rs.1.00 lakh	0.5	16	8	0	0	0	0	0	0	16	8.00
3	Semi-intensive sheep / goat farming to improve meat production by SHGs/ tribes @ 25 units (20+1) / Block	0.25	50	12.5	50	12.5	50	12.5	50	12.5	200	50.00
4	Supply of rams / bucks to SHGs elite farmers @ 2animlas /Block	0.04	16	0.64	0	0	0	0	0	0	16	0.64

Table 6.3 Contd….

S. No	Scheme Components	Unit Cost	2008-2009		2009-2010		2010-2011		2011-2012		Grand Total	
			Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost
	Others											
1	Renovation of existing VD's	5	23	115	0	0	0	0	0	0	23	115.00
	DAH - (TOTAL)			**272.79**		**101.73**		**101.73**		**101.73**		**577.98**
1	Programmed breeding of indigenous Cattle and buffaloes to increase conception rate (DDD)	0.007	2300	16.1	2300	16.1	2300	16.1	2300	16.1	9200	64.40
2	Buffalo calf development programme (2000 calves/ year) (DDD)	0.148	150	22.2	150	22.2	150	22.2	150	22.2	600	88.80
3	Supply of mineral mixture to the milch animals at subsided cost (50%() 18kg /year (DDD)	0.005	1500	7.5	1500	7.5	1500	7.5	1500	7.5	6000	30.00
4	Supply of By-pass protein feed to the milch animals (360kgs/year/animal 50% subsidised cost of Rs.9/- per kg)	0.033	250	8.25	250	8.25	250	8.25	250	8.25	1000	33.00
5	Portable milking machines for Farmers	0.18	20	3.6	10	1.8	10	1.8	10	1.8	50	9.00
6	Chaff cutters for elite farmers (Small type) Rs.20,000 as 100% grant (DDD)	0.2	2	0.4	2	0.4	1	0.2	1	0.2	6	1.20
7	Bulk milk cooler (DDD)	30	1	30	0	0	0	0	0	0	1	30.00
8	Walk -in coolers (DDD)	30	1	30	0	0	0	0	0	0	1	30.00
9	Revival of dormant MPCS (DDD)	1	5	5	5	5	5	5	5	5	20	20.00

Table 6.3 Contd….

S. No	Scheme Components	Unit Cost	2008-2009		2009-2010		2010-2011		2011-2012		Grand Total	
			Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost
10	Fodder Development activities (500 in 100 IDF villages in each for 2 years & 1850 acres in farmers field (DDD)	0.235	20	4.7	10	2.35	10	2.35	10	2.35	50	11.75
11	Manufacturing facilities for milk khoa (DDD)	0.77	1	0.77	1	0.77	0	0	0	0	2	1.54
12	Manufacturing facilities for ice cream (DDD)	1.12	1	1.12	1	1.12	0	0	0	0	2	2.24
13	Milk weighing machine for milk producers Co-operative societies (DDD)	0.17	45	7.65	45	7.65	45	7.65	45	7.65	180	30.60
14	P.C. based automatic milk collection stations to IDF village milk producers Co-operative societies (DDD)	1.75	4	7	2	3.5	2	3.5	2	3.5	10	17.50
15	Farmers study tout Rs.5,000/- per farmer (DDD)	0.05	40	2	40	2	40	2	30	1.5	150	7.50
16	Skill development for technical staff (DDD)	0.05	40	2	40	2	40	2	20	1	140	7.00
17	Product production & delivery facility (DDD)	2.5	1	2.5	0	0	0	0	0	0	1	2.50
18	Orientation training / workshop for milk producers at society level (DDD)	0.2	4	0.8	4	0.8	4	0.8	4	0.8	16	3.20
	DDD - Total			**151.59**		**81.44**		**79.35**		**77.85**		**390.23**

Table 6.3 Contd….

S. No	Scheme Components	Unit Cost	2008-2009		2009-2010		2010-2011		2011-2012		Grand Total	
			Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost
1	Establishment of model goat breeding unit for demonstration and distribution of germ plasm VUTRC, Dharmapuri (20+1) (TANUVAS)	12.5	1	12.5	0	0	0	0	0	0	1	12.50
2	Establishment of model livestock village for educating farmers (TANUVAS)	9	1	9	1	9	1	9	1	9	4	36.00
3	Training programmes and village level campaign on livestock farming (TANUVAS) (32+12)	0.3	11	3.3	11	3.3	11	3.3	11	3.3	44	13.20
4	Strengthening of training equipments for technology dissemination of VUTRC (TANUVAS)	10	1	10	0	0	0	0	0	0	1	10.00
5	Renovation of training hall at VUTRC (TANVAS)	20	1	20	0	0	0	0	0	0	1	20.00
6	Study tour of farmers to livestock and Poultry research station @ 50 persons / batch (TANUVAS)	0.25	4		4	1	4	1	4	1	16	4.00
	TANUVAS - Total			**55.8**		**13.3**		**13.3**		**13.3**		**95.70**
	Grand total			**480.18**		**196.47**		**194.38**		**192.87**		**1063.90**

Project - 1

i. Project Title: Fish Seed Production

ii. Abstract

a) Repair and Renovation

Fish seed production and rearing is being taken up in the Government Fish Farm located in Hoganakkel and Chinnar Fish farms. The total area of the fish farm in Chinnar is 4.78 acres and that of Hogainakkal fish is 2.20 acres. The area available for fish seed rearing in Chinnar farm is 6400 m^2 and out of this 4000 m^2 is under repair whereas in Hogainakkal farm, the area available for this seed rearing is 3000 m2 and out of this 2000 m^2 is under repair. Strengthening of Government fish seed rearing centre to bridge the gap of seed requirement of this district.

Strengthening of Government Fish Seed Rearing Centre at Hoganakkel and Chinnar.

Project Cost and Financing

Unit cost : (Rs. 1500/m2- cost for, stone pitching and plastering)

Total cost : Rs.1500 X 6000 M2 = Rs.90.00 lakhs

S.No.	Particulars	2008-09	2009-10	2010-11	2011-12
1.	Preliminary official procedures for floating tenders	√			
2.	Execution of work (stone pitching and plastering		√	√	√

b. Creation of Additional Nursery Space

To increase the seed production and to meet out the demand for fish seed to attain self sufficiency in fish seed production in the district, it is proposed to create additional nursery space of 2000 m^2 in the vacant space available in the Government Fish seed, Chinnar.

Project Cost and Financing

Unit cost : (Rs. 3000/m^2- cost for excavation, stone pitching and plastering)

Total cost : Rs.3000 X 2000 M^2 = Rs.60.00 lakhs

Sl.No.	Particulars	2008-09	2009-10	2010-11	2011-12
1.	Preliminary official procedures for floating tenders and execution of work	√	-	-	-

c. Private participation in seed culture by extending 90 % subsidy to fish Farmers

It is proposed to promote rearing of seeds by private farmers by extending 90 % subsidy. A total of 2 Ha cage area will be supported at a cost of 15.00 lakhs.

Total cost : 15 lakhs @ 90% subsidy

Unit cost : 7.50 lakh /100 m2 cage space / ha of farm space
(the cost of cage fabrication, including floats, sinkers, catwalks and installation for a cage area of 100 m2) of cage area

S.No.	Particulars	2008-09	2009-10	2010-11	2011-12
1.	Preliminary official procedures for floating tenders and cage erection	√	√	√	√

d) Supply of Fish Seeds with 50% Subsidy

To expand fish culture in 4000 ha of water bodies additionally.

Budget : Rs. 10.00 lakhs

iii. Project Components

- It is proposed to cover 4000 ha of water bodies additionally to bring under fish culture by extending subsidy assistance for stocking fingerlings.
- The fish production will be enhanced through utilization of water bodies.
- To supply fish seeds at a subsidy of 50% to the fish farmers.
- To utilize water bodies for fish culture by supply of fish seeds to the farmers.
- To stock fingerlings in 4000 ha water bodies at 1000 ha / year

iv. Project Cost and Financing (Rs. 10.00 lakhs @ 50% subsidy)

Unit cost : 0.0025 lakhs (Rs. 250 towards part of the seed cost)

No. of units : 4000 ha

Total cost : 10 lakhs

v. Implementation Chart of the Project

S.N	Particulars	2008-09	2009-10	2010-11	2011-12
1.	Preliminary official procedures for floating tenders and supply of fish seed	√	√	√	√

vi. Reporting

The progress of the project will be reported to the State Fisheries Department.

Project - 2

i. Project Title: Private Fish Farming with 50% subsidy

ii. Abstract

To create 8 ha of farm ponds through private participation.

iii .Budget : Rs. 4.00 lakhs @ 50% subsidy

iv. Project Components

- Expansion of fish culture by providing subsidy 50%.
- To encourage private participation by extending subsidy for construction of farm ponds.
- The construction cost for 1 ha of farm pond is 2 lakhs and 1 lakhs subsidy will be provided for 1 ha farm pond construction.
- To encourage private participation for enhancing fish production.

v. Project Cost and Financing

Total cost : 4.00 lakhs

Unit cost : 0. 50 lakhs/ ha (cost of construction of pond, purchase of implements including net and seed)

No. of units : 8 ha

S.No.	Particulars	2008-09	2009-10	2010-11	2011-12
1.	Preliminary official procedures for floating tenders and establishment of farm ponds @ 2 ha per year	√	√	√	√

vi. Implementation Chart of the Project

v. Reporting

The progress of the project will be reported to the State Fisheries Department.

Project - 3

Infrastructure Development in Post Harvest Sector

i. Project Title: Supply of Fishing Implements with 50% subsidy

ii. Abstract

Fishermen will be provided with gill nets for effective fishing.

iii. Budget : Rs 10.00 lakhs

iv. Project Components

- To provide gillnets to the fishermen at 50% subsidy
- To enhance fish production through capture fisheries.
- To provide 100 nos. of gillnets to the inland fishermen.
- To intervene fishing in natural water bodies.
- Supply of gillnets at 50% subsidy

v. Project cost and financing : Rs. 10.00 lakhs

No. of units	:	100
Unit cost	:	0.10 lakh(purchase of FRP coracle and nets)
Total cost(100 units x 0.10)	:	Rs. 10 .00 lakhs :

vi. Implementation Chart of the Project

S.No.	Particulars	2008-09	2009-10	2010-11	2011-12
1.	Preliminary official procedures for floating tenders and supply of gill nets @ 25 units per year	√	√	√	√

vii. Reporting

The progress of the project will be reported to the State Fisheries Department.

Project - 4

i. Project Title: Development of landing center with 50% subsidy

ii. Abstract

At present the district has no good landing centre for the sale of fishes caught from the seasonal and irrigation tanks. Therefore, it is essential to create a fish landing centre with all necessary facilities in order to get higher income for the fish farmers.

iii. Budget : Rs. 10.00 lakhs

iv. Project Components

- To increase the sale of freshwater fishes caught from seasonal and irrigational tank in order to increase the sale of fishes.
- To increase the sale of fresh water fishes through the landing centre and encourage the fish farmers to utilize this landing centre for getting higher income for fishes.
- To create fish landing centre in Dharmapuri district for increasing the sale of freshwater fishes.
- Fish landing with all facilities (Auction hall, cold storage facilities, etc.,)

v. Project Cost and Financing

Project cost : Rs. 10.00 lakhs

Unit cost : 10 lakhs (Auction hall, cold storage facilities, etc.,)

vi. 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		√	-	-

vii. Reporting

Quarterly progress will be reported to the monitoring agency by the implementing agency. In addition to this the Annual progress can be reviewed with regard to construction of fish landing centre.

Project - 5

i. Project Title: Setting up of flake ice units at landing centres and marketing

i. Abstract

Fish is a perishable commodity. In most of the landing centres and marketing centres there is no adequate ice available for chilling of fish. It is proposed to install flake ice units with capacity of 100 kg/day with 90% subsidy. The total cost would be Rs.6.75 lakhs. It is proposed to establish 3 units in the landing centre and marketing centre.

ii. Budget : Rs. 6.75 lakhs

iii. Project Components

- No adequate ice for chilling preservation of fish in the district
- To encourage the fishermen with the installation of ice flake unit with 90%
- Subsidy
- Utilization of the facility for hygienic handling of harvested fish from the reservoir
- To establish flake ice unit with subsidy
- To make available of adequate quantity of ice for chilling of fish
- To extend 90% subsidy
- To establish 3 units of flake ice units in inland fish landing and marketing centre
- Selection of the landing centre, marketing centre area for establishment of
- Flake ice unit Subsidy – 90%

iv. Project Cost and Financing

Unit cost	:	2.25 Lakhs
Number of units	:	3
Total cost 3x 2.25	:	6.75 lakhs

v. Implementation Chart of the Project

S. No.	Particulars	2008-09	2009-10	2010-11	2011-12
1.	To make available of adequate quantity of ice for chilling of fish	√			
2.	To extend 90% subsidy		√		
3.	To establish 3 units of flake ice units in inland fish landing and marketing centre			√	√

vi. Reporting

The progress of the project will be reported periodically.

Project - 6

i. Project Title: Supply of Insulated Ice Boxes (50 Kg capacity) (90% subsidy)

ii. Abstract

Fish is a perishable commodity and needs to be chilled immediately and stored in insulated boxes. It is proposed to supply ice boxes of 50 Kg capacity 100 fishermen. The total cost would be 1.80 lakhs.

iii. Budget : Rs. 1.80 lakhs

iv. Project Components

- Fish being perishable material, fetching of good price depending on quality. Hence insulated ice box will help to retain the quality for longer duration.
- Upkeep the quality of fish using insulated ice box
- Preserve the fish for longer duration
- having acceptance from the buyers
- Assisting the fishermen to have more price for the fish
- To supply quality fish to the market and consumers
- Extending subsidy at 90% for 50 Kg capacity ice box
- To upkeep the quality of fish using insulated ice box
- To preserve the fish for longer duration
- To have acceptance from the buyers
- To assist the fishermen to have more price for the fish
- Insulated ice box of 50 Kg capacity

v. Project Cost and Financing

Project cost	:	Rs. 1.80 lakhs
Unit cost	:	Rs. 0.018 lakhs (cost of an ice box)
No. of units	:	100 units
Total cost 100 x 0.018	:	Rs. 1.80 lakhs

vi. Implementation Chart of the Project

S. No.	Particulars	2008-09	2009-10	2010-11	2011-12
1.	Supply of ice box	√	√	√	√

vii. Reporting

Progress of the project will be reported periodically.

Project - 6

i. Project Title : Supply of Insulated Ice Boxes (50% subsidy)

ii. Abstract

The Insulated ice box will be provided to inland fishermen for hygienic marketing.

iii. Budget : Rs. 2.25 lakhs

iv. Project Components

- For transporting and progressing fish hygienically.
- Fishermen and vendors will be provided with ice box and insulated could help make available of the fish produce in time with quality retention.
- Making available insulated ice box at affordable price to meet the fishermen needs.
- To promote and sale of fish of high quality with hygiene

v. Project Components

Supply of 30 units of insulated ice box at 50% subsidy

vi. Project Cost and Financing

Unit cost		:	Rs. 0.15 (cost of one ice box)
No. of units		:	15
Total cost	(15 x 0.15)	:	2.25 lakhs

vii. Implementation Chart of the Project

Sl.No.	Particulars	2008-09	2009-10	2010-11	2011-12
1.	Supply of ice box	√	√	√	√

viii. Reporting

Progress of the project will be reported periodically.

Project - 7

i. Project Title: Setting up of Modern Fish Stall

ii. Abstract

A modern fish stall with facilities like ice boxes, crates, electronic balance and dressing table are to provided along with electricity, draining and water facilities.

iii. Budget : Rs. 10.00 lakhs

iv. Project Component

- 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
- This is the last link in the marketing channel. Consumers' satisfaction is guaranteed at this modern fish
- The modern fish stall will be located at Dharmapuri with all necessary infrastructure facilities.
- Providing quality fishes at reasonable price.
- To enhance revenue for the fisher folk engaged in fish marketing

v. Project Components

To essential market infrastructure like electricity, water, drainage and civic amenities in most of the retail fish markets are inadequate.

vi. 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**

vii. 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.	√			

viii. Reporting

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

Project - 9

i. Project Title : Capacity building through training (Fisheries Department and TANUVAS)

ii. Abstract

To conduct training programmes on freshwater fish culture technologies for the adoption. The training programmes will also include various demonstrations on fish culture activities. Follow up study will be conducted. To improve the socio economic conditions of farmers the training programme is to be conducted

iii. Budget: Rs. 40.00 lakhs

iv. Project Component

The inland fisheries sector of Tamilnadu is endowed with a total water spread area of 3,18,790 ha with as major irrigation and long seasonal tanks (97,690 ha), short seasonal tanks/ponds (1,58,100 ha), estuaries and backwaters (56,000 ha) derelict waters, swamps etc. (7,000 ha). While these resources have a potential to yield 2.46 lakhs tonnes of fish, the present yield is only 1.14 lakhs tonnes. About 60% culturable area has been brought under culture practices. TANUVAS will implement the programme.

- Imparting training in such fish culture practices would generate employment opportunities and make them self reliant and socially and economically empowered.

- To conduct training programme on freshwater fish culture for the farmers so as to improve their socio economic conditions.
    1. To conduct 60 training programmes on freshwater fish culture
    2. To train 400 persons in fisheries based technologies
    3. To conduct follow up studies.

v. Project Components

1. Composite fish culture
2. Ornamental fish culture
3. Integrated fish farming
4. Cat fish culture
5. Economics and Marketing

vi. Project Cost and Financing

Total cost : 40 lakhs

Number of trainees : 400

Unit cost : Rs . 0.10 lakh

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**
400 x 10000		**Rs. 40,00,000**

vii. Implementation of the Project

Sl.No.	Particulars	2008-09	2009-10	2010-11	2011-12
1.	Identification of villages	√	√	√	√
2.	Selection of participants	√	√	√	√
3.	Conducting training programmes	√	√	√	√
4.	Evaluation of training programmes	√	√	√	√

viii. Reporting

The progress of the project will be reported to the State Fisheries Department.

Project - 10

Research and Development (TANUVAS)

i. Project Title: Breeding of Endemic Ornamental Fishes

ii. Abstract

Ninety five per cent of our ornamental fish export is based on wild collection. Majority of the indigenous ornamental fish trade in India is from the North Eastern states and the rest is from Southern states which are the hot spots of fish bio diversity in India. This capture based export is not sustainable and it is a matter of concern for the industry. In order to sustain the growth it is absolutely necessary to shift the focus from capture to culture based development. Moreover most of the fish species grown for their ornamental importance can be bred in India successfully. Organised trade in ornamental fish depends on assured and adequate supply of demand, which is possible only by mass breeding

iii. Budget: Rs. 18.00 lakhs

iv. Project Components

- Ornamental fish keeping is one of the most popular hobbies in the world today. The growing interest in aquarium fishes has resulted in steady increase in aquarium fish trade globally. The trade with a turnover of US $ 5 Billion and an Annual growth rate of 8 percent offers a lot of scope for development. The top exporting country is Singapore followed by Honkong, Malaysia, Thailand, Philippines, Sri Lanka, Taiwan, Indonesia and India. The largest importer of Ornamental fish is the USA followed by Europe and Japan. The emerging markets are China and South Africa. Over US $ 500 million worth of ornamental fish are imported into the USA each year.

- India's share in ornamental fish trade is estimated to be Rs 158.23 lakhs which is only 0.008% of the global trade. The major part of the export trade is based on wild collection. There is very good domestic market too, which is mainly based on domestically bred exotic species. The overall domestic trade in this field cross 10 crores and is growing at the rate of 20 per cent Annually. The earning potential of this sector has hardly been understood and the same is not being exploited in a technology driven Mannar. Considering the relatively simple technique involved, this activity has the potential to create substantial job opportunities, besides helping export earnings.

- Among the various aquaculture practices, ornamental fish culture is gaining momentum at present. There is much scope for self employment opportunities in this trade. Tamilnadu has sufficient potential for the development of ornamental fish culture in terms of land, water and labour resources, If the ornamental fish breeding is taken up by farmers, rural youth, women self help groups considerable quantities of ornamental fishes could be produced. This in turn could contribute considerably to GDP growth of our nation besides alleviating poverty.

- Breeding of live bearing ornamental fishes such as molly, guppy, plat and swordtail fish and egg laying ornamental fishes like gold fish, koi carp, fighter, gourami and oscar fish.

- Production of healthy young ones

- Development of good quality broodstock

- Selling of ornamental fishes

- To breed ornamental fishes and selling to the public

- To increase the family income and to improve the socio economic status of the farmers, women self help groups and to create employment through aquaculture by quality broodstock supply.

v. Project Cost and Financing : Rs. 18.00 lakhs

S.No.	Particulars	Rupees
1	Construction of hatchery shed 200 m2 x 1200	2,40,000
2	Construction of cement tanks 60000 lts	75,000
3	Air blower	20,000
4	generator	100,000
5	filter	200,000
6	breeders	50,000
7	Bore well, pump, pipe lines	500,000
8	Lab instruments(glass wares and chemical)	100,000
9	Feed, fertilizer, manure	50,000
10	Miscellaneous	4,65,000
	Total	**18,00,000**

vi. Implementation of the Project

Sl. No.	Particulars	2008-09	2009-10	2010-11	2011-12
1.	Construction of hatchery shed and construction of tanks	√			
2.	Installation of accessories		√		
3.	Breeding and production of fishes				

vii. Reporting

The progress of the work will be intimated once in 3 months to the TANUVAS.

i. Project Title : Establishment of Fish Culture and Post Harvest Technology Unit

ii. Abstract

For conducting training programmes for fishermen on advanced techniques in fishing methods. This programme will also to develop skill on harvest and post harvest management

iii. Budget: Rs. 30.00 lakhs

iv. Project Goals

The marine fisherfolk population in Tamilnadu is about 9.0 lakhs and out of which 2.62 lakhs were active fisherfolk. There are 591 marine fishing village and nearly 362 marine fish landing centres in the state.

- Presently, the fishermen of Tamilnadu coast are carrying out fishing operations based on their own experiences and most of the technical aspect of carrying out right fishing methods are not being known / practiced in order to get more catch in a sustained manner. However, the fishermen are aware of some of these

aspects and it needs future stress for adoption. To improve the knowledge and skill on advanced techniques on fish harvest and post harvest management, this training programme is to be conducted.

- The training programmes imparting knowledge on use of advanced fishing equipments and post harvest management techniques.

- To improve the knowledge and skills of fishermen on advanced techniques on harvest and post harvest management

v. Project Components

a) Advanced fishing methods
b) Post harvest management

vi. Project Cost and Financing

(Total cost - 30 lakhs)

Sl.No.	Particulars	Rupees
1	Establishment of demonstration fish farm	5,00,000
2.	Model fish seed hatchery	10,00,000
3.	Provision of lab and training hall facility	10,00,000
4.	Model fish processing unit	5,00,000
	Total	**30,00,000**

vii. Implementation of the Project

Sl.No.	Particulars	2009-10
1.	Establishment of demonstration fish farm	√
2.	Model fish seed hatchery	√
3.	Provision of lab and training hall facility	√
4.	Model fish processing unit	√

viii. Reporting

The progress report / Annual report of the project will be reported to the TANUVAS.

Project - 11

i. River Ranching of Native Fish Varieties

ii. Abstract

River ranching fish seeds will increase the productivity of the rivers with fishery resources. It has been proposed to rach fish seeds in riverine regions of Dharmapuri district with an estimated cost of Rs.10.0 Lakhs.

iii. Budget : 10.00 lakhs

iv. Project Goals

- Ranching of common fish species of riverine origin is expected to enhance the stock and save the endemic fish species. Cauvery, Chinnar, Thoppair, Thenpannaair flow in this district. Since there is depletion of stock, fish species such as labeos, puntius, rasboras, native catfish, aaral, murrel , glossogobius and similar fish species have to be grown in captivity , bred and rached into the rivers to enhance the stock.

- Restocking of riverine fish species
- Replenishment of running water bodies
- Conservation of riverine fishes
- Assisting the fishermen for livelihood
- Identification of riverine systems
- Identification of depleted riverine fish species

- Breeding in captivity
- Ranching of the seeds in the riverine systems
- To restock the river water bodies with native fish species
- To ranch the fish species at different localities of the chosen river systems
- with fishermen participation

v. Project Components

Native, endemic, and river fish species ranching and replenishment.

vi. Project Cost and Financing

vii. Project Cost - Rs. 10.00 lakhs

viii. Implementation Chart of the Project

Sl. No.	Particulars	2008-09	2009-10	2010-11	2011-12
1.	Construction of ponds and hatcheries	√	√		
2.	Creation of laboratory facilities for breeding the fishes		√		
3.	Production of native fish species and rearing		√	√	√
4.	Ranching of seeds in rivers		√	√	√

Table 6.4 Budget outlay for Fisheries Sector in Dharmapuri district

Sl. No.	Components	Implementing Agency	Unit cost (Rs.in lakh)	2008-09		2009-10		2010-11		2011-12		Total units	Total cost (Rs.in lakh)
				Units	Cost	Units	Cost	Units	Cost	Units	Cost		
1	**Fish Seed Production**												
	a. Repair and renovation of seed farm	Fisheries Department	0.02	6000 M2	90.00							6000 M2	90.00
	b. Creation of additional nursery space	Fisheries Department	0.03	2000 M2	60.00							2000 M2	60.00
	c. Private participation with 50% subsidy	Fisheries Department	7.50	1.00	7.50	1.00	7.50					2 Ha	15.00
	a. Supply of fish seeds with 50%subsidy	Fisheries Department	0.0025	1000ha	2.50	1000.00	2.50	1000.00	2.50	1000.00	2.50	4000 ha	10.00
	b. Private fish farming with 50% subsidy	Fisheries Department	0.50	2 ha	1.00	2.00	1.00	2.00	1.00	2.00	1.00	8 ha	4.00
2	**Infrastructure development in harvest and post harvest sector**												
	a. Supply of fishing implements with 50% subsidy	Fisheries Department	0.10	25.00	2.50	25.00	2.50	25.00	2.50	25.00	2.50	100.00	10.00
	b. Development of landing center with 50% subsidy	Fisheries Department	10.00	1.00	10.00							1.00	10.00
	c. Setting up of flake ice units at landing centers and marketing	Fisheries Department	2.25	1.00	2.25	1.00	2.25	1.00	2.25			3.00	6.75

Table 6.4 Contd…..

Sl. No.	Components	Implementing Agency	Unit cost (Rs.in lakh)	2008-09		2009-10		2010-11		2011-12		Total units	Total cost (Rs.in lakh)
				Units	Cost	Units	Cost	Units	Cost	Units	Cost		
	d. Supply of insulated ice boxes (50Kg capacity) 90% subsidy	Fisheries Department	0.0180	20.00	0.36	40.00	0.72	20.00	0.36	20.00	0.36	1.00	1.80
	e. Supply of insulated ice boxes (50% subsidy)	TAFCOFED	0.15	5.00	0.75	5.00	0.75	5.00	0.75			15.00	2.25
	g. Setting up of modern fish stall	Fisheries Department	10.00	1.00	10.00							1.00	10.00
	Fisheries Total				**186.86**		**17.22**		**9.36**		**6.36**		**219.80**
1	**Capacity building through training (Fisheries Dept and TANUVAS)**												
	a. Farmers training @Rs. 10000/unit-1member	TANUVAS	0.10	100.00	10.00	100.00	10.00	100.00	10.00	100.00	10.00	400.00	40.00
	Research and Development (TANUVAS)												
	a. Breeding of endemic ornamental fishes	TANUVAS	18.00	1.00	18.00							1.00	18.00
	b. Establishment of fish culture and post harvest technology	TANUVAS	30.00			1	30.00					1.00	30.00
	c. River ranching of native fish varieties	TANUVAS	10.00			1	10.00					1.00	10.00
	TANUVAS-Total				**28.00**		**40.00**		**10.00**		**10.00**		**98.00**
	Grand Total				**214.86**		**67.22**		**19.36**		**16.36**		**317.80**

6.5 AGRICULTURAL ENGINEERING

6.5.1. Introduction

By resorting to suitable interventions like introduction of newly developed agricultural machinery / implements and popularizing the existing machinery / implements by way of supplying them to the farming community at subsidized rates, more agriculturists can be made to understand the benefits / merits of using the machinery / implements thereby leading to the continuous adoption of mechanized farming in the long- run. This will largely help in overcoming the problem of labour shortage and also in timely agricultural operations and in the reduction of the recurrent cost of agricultural operations to a considerable extent. This will indirectly result in the enhancement of the farmers' income.

6.5.2. Project Proposals

The following proposals are submitted by Deaprtment of Agricultural Engineering under NADP.

Project - 1

i. Title of the Project : Introduction of newly developed Agricultural Machineries / Implements / Tools to reduce the labour cost / scarcity

ii. Project Components

1. Mini combined harvestor (TNAU model)
2. Power weeder with attachment
3. Power Thrasher
4. Paddy Transplanter
5. Post hole Digger
6. Coconut Dehusker
7. Chiesel Plough

8. General eco friendly equipments
9. Groundnut Digger
10. Chaff cutter
11. Knapsack Hydraulic sprayer
12. Seed Drill

iii. Implementing Agency	:	Department of Agricultural Engineering.
iv. Location	:	Dharmapuri
v. Stake Holders	:	Farmers
vi. Time Frame	:	2008-2012
vii. Total Cost	:	Rs.669.60 lakhs

Project - 2

i. Title of the Project : Introduction of Mechanized village in Groundnut on Cluster Basis

ii. Project Components

a) T.D. Chiesel plough
b) T.D. Cultivator mounted seed drill
c) Long handled weeder (STAR)
d) Long handled weeder (PEG)
e) Power weeder with earthing attachment
f) Groundnut Harvester
g) Groundnut Stripper (with electrical motor)

h) Groundnut thrasher with 7.5 HP Electric Motor

i) Groundnut Decorticator

j) T D Boradbed cum seeder

k) TD Basin lister cum seeder

l) Power Tiller drawn cup feed seeder

iii. Implementing Agency : Department of Agricultural Engineering.

iv. Location : Dharmapuri

v. Stake Holders : Farmers

vi. Time Frame : 2008-2012

vii. Total Cost : Rs. 164.56 lakhs

Project - 3

i) Title of the Project : Popularization of Agricultural Machineries & Equipments

ii) Project Components

a) Power Tiller

b) Rotovator

c) Cultivator

d) Off-set Disc Harrow

e) Disc Plough

iii) Implementing Agency : Department of Agricultural Engineering.

iv) Location : Dharmapuri

v) Stake Holders : Farmers

vi) Time Frame : 2008-012

vii) Total Cost : Rs. 1100.16 lakhs.

Project - 4

i) Title of the Project : To construct rain water harvesting structures to improve the Ground water recharge.

ii) Project Components

a) Farm Pond unlined

b) Checkdam - minor

c) Checkdam – Medium

d) Checkdam – Major

e) Percolation Pond

f) New village Tank

Implementing Agency : Department of Agricultural Engineering.

Location : Dharmapuri

Stake Holders : Farmers

Time Frame : 2008-2012

Total Cost : Rs. 4600 lakhs

Project - 5

i. Title of the Project : Structures to improve the Soil and Water Conservation Measures

ii. **Project Components**

a) Compartmental Bunding

b) Land Shaping Terrace Support wall

iii.	Implementing Agency	:	Department of Agricultural Engineering.
iv.	Location	:	Dharmapuri
v.	Stake Holders	:	Farmers
vi.	Time Frame	:	2008-2012
vii.	Total Cost	:	Rs. 3360 lakhs

Project - 6

i. Title of the Project : Supply of Equipments/ Devices for Improving the Water Management

ii. Project Components

a) PVC pipe laying

b) Ground level reservoir

c) Fertigation Assembly

iii.	Implementing Agency	:	Department of Agricultural Engineering.
iv.	Location	:	Dharmapuri
v.	Stake Holders	:	Farmers
vi.	Time Frame	:	2008-2012
vii.	Total Cost	:	Rs. 2467.20 lakhs

6.5.3 Project Cost

The detailed project components and the associated costs for the development of agricultural engineering activities in Dharmapuri district are presented in Table 6.5.

Table 6.5 Project Costs details

(Rs. in Lakhs)

S.No.	Project Name	Cost
1	Introduction of newly developed Agricultural Machineries & Implements	669.76
2	Introduction of Mechanized village in Groundnut on Cluster Basis	171.68
3	Popularization of Agricultural Machineries & Equipments	1099.98
4	Rain water harvesting structures to improve the Ground water recharge.	4600.00
5	Structures to improve the Soil and Water Conservation measures	3360.00
6	Supply of equipments/ devices for improving the water management	2467.20
	Total	**12368.62**

6.5.4 Budget Summary

In overall, the total budget for agricultural engineering activities during XI plan period under NADP for Dharmapuri district works out to Rs. 12368.62 lakhs. The yearwise budget details are presented in Table 6.6.

Table 6.6 Budget details of Agricultural Engineering

Sl. No	Details	2008 - 09			2009 - 10		2010 - 11		2011 - 12		Total	
		No. of Units	Cost / Unit Rs.	Total Cost	No. of Units	Total Cost	No. of Units	Total Cost	No. of Units	Total Cost	No. of Units	Total Cost
1	**Introduction of Newly Developed Agrl. Machineries / Implements**											
a	Mini Combined harvester (TNAU Model)	8	2.5	20	8	22	8	24	8	26	32	**92**
b	Power Thrasher	16	1	16	16	17.6	16	19.2	16	20.8	64	**73.6**
c	Seed drill	16	0.4	6.4	16	7.04	16	7.68	16	8.32	64	**29.44**
d	General Friendly equipments	120	0.08	9.6	120	10.56	120	11.52	120	12.48	480	**44.16**
e	Groundnut Digger	8	0.5	4	8	4.4	8	4.8	8	5.2	32	**18.4**
f	Chaff cutter	40	0.3	12	40	13.2	40	14.4	40	15.6	160	**55.2**
g	Power weeder with attachment	16	1	16	16	17.6	16	19.2	16	20.8	64	**73.6**
h	Paddy Transplanter	16	1.4	22.4	16	24.64	16	26.88	16	29.12	64	**103.04**
i	Coconut De-husker	16	0.6	9.6	16	10.56	16	11.52	16	12.48	64	**44.16**
j	Chisel Plough	40	0.12	4.8	40	5.28	40	5.76	40	6.24	160	**22.08**
k	Knapsack Power operated Hydraulic Sprayer	56	0.2	11.2	56	12.32	56	13.44	56	14.56	224	**51.52**
l	Post Hole Digger	16	0.85	13.6	16	14.96	16	16.32	16	17.68	64	**62.56**
	Promoting the concept of Mechanized villages											
	Total											**669.76**
2	**Distribution of crop based package of Agrl. Machinery on Cluster basis in the adopted villages**											
	Groundnut	8	4.47	35.76	8	42.96	8	46.48	8	46.48	32	**171.68**
3	**Popularization of Agricultural Mechanization and water harvesting / conservation.**											
a	Power Tiller	120	1.16	139.2	120	153.12	120	167.04	120	180.96	480	**640.32**
b	Rotovator	80	0.9	72	80	79.2	80	86.4	80	93.6	320	**331.2**

Table 6.6 Contd….

Sl. No	Details	2008 - 09			2009 - 10		2010 - 11		2011 - 12		Total	
		No. of Units	Cost / Unit Rs.	Total Cost	No. of Units	Total Cost	No. of Units	Total Cost	No. of Units	Total Cost	No. of Units	Total Cost
c	Cultivator	40	0.16	6.4	40	7.04	40	7.68	40	8.32	160	**29.44**
d	Off-set Disc Harrow	16	0.47	7.52	16	8.24	16	9.02	16	9.76	64	**34.54**
e	Disc Plough	40	0.35	14	40	15.44	40	16.8	40	18.24	160	**64.48**
4	**Water Harvesting Structures**										Total	**1099.98**
a	Farm Pond unlined	240	0.5	120	240	132	240	144	240	156	960	**552**
e	Percolation Pond	80	3.25	260	80	286	80	312	80	338	320	**1196**
f	New village tank	80	1.5	120	80	132	80	144	80	156	320	**552**
d	Check dam-Major	120	1	120	120	132	120	144	120	156	480	**552**
e	Check dam-Medium	80	3.25	260	80	286	80	312	80	338	320	**1196**
f	Check dam-Minor	80	1.5	120	80	132	80	144	80	156	320	**552**
5	**Soil and Water Conservation Works**										Total	**4600**
	b. Land Shaping	1200	0.1	120	1200	120	1200	120	1200	120	4800	**480**
	c.Terrace support wall	1200	0.3	360	1200	360	1200	360	1200	360	4800	**1440**
	a. Compartmental Bunding (Hec)	1200	0.3	360	1200	360	1200	360	1200	360	4800	**1440**
6	**Water Management Works**										Total	**3360**
	a. PVC Pipe laying	2800	0.15	420	2800	420	2800	420	2800	420	11200	**1680**
	b. Ground level Reservoir	240	0.8	192	240	192	240	192	240	192	960	**768**
	c. Fertigation Assembly	40	0.12	4.8	40	4.8	40	4.8	40	4.8	160	**19.2**
	TOTAL PROJECT COST			**2877.22**		**3022.96**		**3164.94**		**3303.44**		**2467.20**

6.6 AGRICULTURAL MARKETING

6.6.1. Introduction

For the development of agricultural marketing and agri-business sector, Ten projects have been formulated and the details of the same are presented below, projectwise.

6.6.2. Project Components

1. Establishment/ organization of commodity groups for marketing in the state with financial assistance from NADP
2. Facilitation of Contract Farming between farmers and bulk buyers in the state with financial assistance from NADP
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. Capacity building of farmer’s skill
8. Price surveillance
9. Regulated Market uzhavar Shandies Publicity
10. Market Infrastructure

Project - 1

i) Title of the Project : Establishment/ organization of Commodity Groups for Marketing in the State with Financial assistance from NADP

ii) 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.

iii) Project Strategy

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

iv) Project Goals

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

v) 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

vi) 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 thesean amount of Rs.20000/= is provided per group.

In this project it is proposed to organize 127 commodity groups in 8 commodities for marketing of agricultural commodities in Dharmapuri district over the period of four years. This will require resources of Rs 28 .62 Lakhs for the period of four years. The details are presented in Annexure I.

vii) 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).

Project - 2

i) Title of the Project: Facilitation of Contract Farming between Farmers and Bulk buyers in the State with Financial assistance from NADP

ii) 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 no 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.

iii) Project Strategy

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

iv) 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.

v) Project Cost and Financing

Arranging / organising Commodity Groups involve several rounds of meeting with large number of farmers and traders, train them 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 Dharmapuri district for marketing of agricultural commodities in Tamil Nadu over the period of four years. This will require resources of Rs 3.07 lakhs for the period of four years. The Details are presented in Annexure I.

vi) Reporting

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

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

Project - 3

i) Title of the Project : Dissemination of Market Intelligence

ii) 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.

iii) 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.

iv) Project Components

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

v) 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 Dharmapuri district over the period of four years. This will require resources of Rs. 18.35 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 undertaken by the Deputy Director (Agricultural Marketing and Agri Business).

Project - 4

i) Title of the Project : Arrangement of Buyers - Sellers Meet

ii) 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 good 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.

iii) Project Cost and Financing

In this project it is proposed to arrange for 65 buyers sellers meet in Dharmapuri district over the period of four years. This will require resources of Rs.14.8 Lakhs for the period of four years. The details are presented in Annexure I.

Project - 5

i) Title of the Project : Organizing the exposure visits to important markets with in the state and out side the state by commodity groups / farmers and extension functionaries.

ii) Project Rationale

The goal of 4 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 XI 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 of 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.

iii) Project Strategy

Organizing the exposure visits to important markets with in the state and out side the state by commodity groups / farmers and extension functionaries.

iv) Project Goals

Organizing 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 from NADP funding.

v) Project Components

1. Organizing the exposure visit to important markets with in the state by commodity groups / farmers
2. Organizing the exposure visit to important markets out side the state by commodity groups / farmers
3. Organizing the exposure visit to important markets with in the state and out side the state by extension functionaries

vi) 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. 41.92 Lakhs for the period of four years. The details are presented in Annexure I.

vii) Reporting

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

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

Project - 6

i) Title of the Project : Strengthening of Market Extension centre at each district/ block Level for Capacity Building and Dissemination of Marketing Information

ii) 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 a urgent need to strengthening of market extension centre at each district/ block level with LCD projectors and lap top computer including internet facilities.

iii) Project Strategy

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

iv) 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.

v) Project Components

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

vi) 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 Dharmapuri district over the period of four years. This will require resources of Rs.10.00 Lakhs for the period of four years.

vii) 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).

Project - 7

i) Project Title : Capacity Building of Farmers' Skill

ii) 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. 13.17 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.

iii) 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.

iv) 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.

v) Project Cost and Financing

In this project it is proposed to organize about 108 trainings under Capacity Building of Farmers Skill titles for marketing of agricultural commodities in Dharmapuri district over the period of four years. This will require resources of Rs 13.17 Lakhs for the period of four years. The Details are presented in Annexure I.

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).

Project - 8

i) Title of the Project: Strengthening of Selected Market Infrastructure (equipments) through NADP Funding

ii) Project Rationale

Considering the importance of different Markets, there is an urgent need to develop these markets in a phased manner with necessary infrastructural amenities to have a strong base of the marketing channel. Suitability and adequacy of marketing infrastructure depends on the type and quantity of marketed surpluses of agricultural produce in the State. The estimated marketed surpluses of various commodities are given in the Table 6.7 reflected the need for improvement in the market infrastructure in coming years.

Table 6.7 Estimates of Marketed Surpluses of Various Commodities

Commodity	Marketed surplus ratio (per cent)
Rice	51.9
Wheat	53.8
Jowar	39.7
Bajra	45.4
Maize	46.2
Other Coarse Cereals	57.1
Pulses	53.9
Food grains	
Oilseeds	79.6
Sugarcane	92.9
Fruits and Vegetables**	88.2
Cotton	100.0
Fish	100.0
Milk	60.0
Mutton and Goat Meat	100.0
Beef and Buffalo Meat	100.0
Meat(Total)	100.0
Eggs	88.2

****** Source of Marketed Surplus (MS) Output Ratio for Fruits and Vegetables is Achyra, S S (2003). Agril. Marketing in India, (as a Part of Millennium Study of Indian Farmers), P134 (Original Source- Agril Statistics at a Glance 2001. Agril. Statistics Division, Directorate of Economics and Statistics, Ministry of Agriculture, New Delhi).

iii) Project Components

1. Purchasing and Establishing price display board and mobile controlled display board
2. Purchasing and Establishing collection centres
3. Purchasing and Establishing chilli dryers
4. Purchasing and Establishing cool Chambers/cold storage
5. Purchasing and Establishing Price Display Mechanism and Electronic Weighing Machines
6. Purchasing and establishing moisture meter
7. Purchasing and Distribution of Tarpaulins, Plastic crates and storage pins

iv) Project Cost and Financing

In this project it is proposed to strengthen market infrastructure in Dharmapuri district over the period of four years. This will require resources of Rs. 139 Lakhs for the period of four years. The Details are presented in Annexure I & II.

v) Reporting

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

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

Project - 9

i) Title of the Project: Establishment of Price Surveillance Mechanism through NADP Funding

ii) Project 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.

iii) 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.

iv) 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 Dharmapuri district over the period of four years. This will require resources of RS.5.52 Lakhs for the period of four years. The Details are presented in Annexure I & II.

v) Reporting

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

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

Project - 10

i) Title of the Project: Strengthening of Regulated Market and *Uzhavar Shandies* Publicity through NADP Funding

ii) Project 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

iii) Project Components

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

iv) 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 Lakhs over the period of four years.

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).

6.6.3. Budget Summary

The budget details of all the 10 projects proposed for the development of agricultural marketing and agri-business sectors during XI plan period under NADP are summarized below in Table 6.8.

Table 6.8. Budget Summary

(Rs. Lakhs)

S.No.	Project Name	2009	2010	2011	2012	Total
1	Commodity group formation	7.60	8.36	7.20	5.46	28.62
2	Market Intelligence dissemination	4.20	4.03	4.76	5.36	18.35
3	Facilitation of contract farming	0.75	0.83	0.72	0.78	3.08
4	Training	3.50	3.30	2.88	2.47	12.15
5	Exposure visit to markets	9.10	10.01	10.94	11.88	41.92
6	Arrangement of buyer seller meetings	4.00	3.30	3.60	3.90	14.80
7	Streng. Of market extension centre	10.00	0.00	0.00	0.00	10.00
8	Market price surveillance	1.20	1.32	1.44	1.56	5.52
9	Publicity - regulated market	5.00	5.50	6.00	6.50	23.00
10	Market infrastructure activities	25.50	38.50	36.00	39.00	139.00
11	Additional Project Proposals for Agricultural Marketing and Agri-Business	-	252.24	296.99	194.83	744.06
	Total	**70.85**	**327.39**	**370.53**	**271.74**	**1040.51**

In sum, the total budget outlay of Rs. 1040.51 lakhs has been proposed for the development of agricultural marketing in Dharmapuri district during XI plan period under NADP.

Table 6.9A Original Project Proposals for Agricultural Marketing and Agri-Business

S. No	Components	2009			2010			2011			2012			Total (Value in Rs)
		Unit cost	Physical	Financial	Unit cost	Physical	Financial	Unit cost	Physical	Financial	Unit cost	Physical	Financial	
1	**Commodity Group Formation**													
	Paddy	20000	5	100000	22000	5	110000	24000	4	96000	26000	3	78000	**384000**
	Groudnut	20000	5	100000	22000	5	110000	24000	4	96000	26000	4	104000	**410000**
	Sunflower	20000	5	100000	22000	5	110000	24000	4	96000	26000	2	52000	**358000**
	Tapioca	20000	5	100000	22000	5	110000	24000	4	96000	26000	2	52000	**358000**
	Tomato	20000	5	100000	22000	5	110000	24000	4	96000	26000	2	52000	**358000**
	Chrysanthemum	20000	5	100000	22000	5	110000	24000	4	96000	26000	2	52000	**358000**
	Turmeric	20000	3	60000	22000	5	110000	24000	2	48000	26000	2	52000	**270000**
	Maize	20000	5	100000	22000	3	66000	24000	4	96000	26000	4	104000	**366000**
2	**Market Intelligence dissemination**													
	Farmers Traders Meet	10000	8	80000	11000	8	88000	12000	8	96000	13000	8	104000	**368000**
	Printing of leaflets	2	50000	100000	3	50000	150000	4	50000	200000	5	50000	250000	**700000**
	Local TV channel	10000	10	100000	11000	10	110000	12000	10	120000	13000	10	130000	**460000**
	Block information centre	10000	8	80000	11000	0	0	12000	0	0	13000	0	0	**80000**
	Purcahse Mar Materials	10000	1	10000	11000	1	11000	12000	1	12000	13000	1	13000	**46000**
	Export Leaflets	10000	5	50000	11000	4	44000	12000	4	48000	13000	3	39000	**181000**
3	Facilitation of contract farming	15000	5	75000	16500	5	82500	18000	4	72000	19500	4	78000	**307500**
4	Trainings on													
	Grading	10000	2	20000	11000	2	22000	12000	1	12000	13000	1	13000	**67000**
	Commodity Markets	10000	2	20000	11000	2	22000	12000	1	12000	13000	1	13000	**67000**
	GAP Food Safety	10000	5	50000	11000	4	44000	12000	3	36000	13000	3	39000	**169000**
	Post Harvest	10000	5	50000	11000	4	44000	12000	3	36000	13000	3	39000	**169000**
	Warehousing and Storage	10000	3	30000	11000	2	22000	12000	2	24000	13000	2	26000	**102000**

Table 6.9A Contd…..

S. No	Components	2009			2010			2011			2012			Total (Value in Rs)
		Unit cost	Physical	Financial	Unit cost	Physical	Financial	Unit cost	Physical	Financial	Unit cost	Physical	Financial	
	Market Intelligence	10000	3	30000	11000	2	22000	12000	2	24000	13000	2	26000	**102000**
	Value addition - Training	10000	5	50000	11000	5	55000	12000	4	48000	13000	2	26000	**179000**
	Group formation	10000	5	50000	11000	5	55000	12000	4	48000	13000	2	26000	**179000**
	Export Mango	10000	5	50000	11000	4	44000	12000	4	48000	13000	3	39000	**181000**
5	Exposure visit to markets													
	Within State	20000	8	160000	22000	8	176000	24000	8	192000	26000	8	208000	**736000**
	Outside state	75000	8	600000	82500	8	660000	90000	8	720000	97500	8	780000	**2760000**
	Visit to National Markets	150000	1	150000	165000	1	165000	181500	1	181500	199650	1	199650	**696150**
6	Arrangement of buyer seller meetings	20000	20	400000	22000	15	330000	24000	15	360000	26000	15	390000	**1480000**
7	Streng. of market extension centre	250000	4	1000000	275000		0	300000		0	325000		0	**1000000**
8	Market price surveillance	10000	12	120000	11000	12	132000	12000	12	144000	13000	12	156000	**552000**
9	Publicity - regulated market	500000	1	500000	550000	1	550000	600000	1	600000	650000	1	650000	**2300000**
10	Market infrastructure activities													
	Tarpaulin	5000	100	50000	5500	100	1100000	6000	100	600000	6500	100	650000	**2400000**
	Plastic Crates	500	1000	500000	550	1000	550000	600	1000	600000	650	1000	650000	**2300000**
	Min PH loss Storage bins	5000	400	2000000	5500	400	2200000	6000	400	2400000	6500	400	2600000	**9200000**
	Total	**1350502**	**51664**	**7085000**	**1485553**	**51641**	**7514500**	**1622104**	**51626**	**7353500**	**1760305**	**51611**	**7690650**	**29643650**

Table 6.9B Additional Project Proposals for Agricultural Marketing and Agri-Business (DDA(AB) and Market committee) Rs.in lakhs

Sl. No.	Possible Development Interventions	2009-10		2010-2011		2011-2012		Total	
		Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.
I.	**Infrastructure**								
1	Construction of rural godowns in the premises of the regulated markets @ Rs.40.00 Lakhs/Unit	1	40.00	1	40.00	1	40.00	3	120.00
2	Storage godowns for storing produce under lock and key for few days @ Rs.10.00 Lakhs/Unit	0	0.00	4	40.00	4	40.00	8	80.00
3	Construction of new drying yards/renovation of dilapidated ones @ Rs.6.00 Lakhs/Unit	1	6.00	0	0.00	0	0.00	1	6.00
4	Construction of new auction halls/modernizing the existing ones @ Rs.30.00 Lakhs/Unit	1	30.00	1	30.00	0	0.00	2	60.00
5	Construction of money disbursement halls/counters @ Rs.5.00 Lakhs/Unit	1	5.00	1	5.00	1	5.00	3	15.00
6	Construction of office buildings and staff quarters @ Rs.15.00 Lakhs/Unit	1	15.00	1	15.00	0	0.00	2	30.00
7	Installation of processing units/purchaswe of new instruments in the premises of the regulated markets								
	(i) Mechanical drier @ Rs.3.00 Lakhs/Unit	0	0.00	1	3.00	1	3.00	2	6.00
	(ii) Mechanical winnower @ Rs.2.00 Lakhs/Unit	0	0.00	1	2.00	1	2.00	2	4.00
	(iii) Groundnut decorticator @ Rs.3.00 Lakhs/Unit	0	0.00	2	6.00	2	6.00	4	12.00
	(iv) Sieving machine @ Rs.1.50 Lakhs/Unit	0	0.00	2	3.00	1	1.50	3	4.50
	(v) Cotton Ginning Unit / Pressing Unit	0	0.00	0	0.00	0	0.00	0	0.00

Contd.,

Sl. No.	Possible Development Interventions	2009-10		2010-2011		2011-2012		Total	
		Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.
	(vi) Coconut Kernel drying and oil processing units @ Rs.6.00 Lakhs/Unit	0	0.00	1	6.00	0	0.00	1	6.00
	(vii) Packaging Units @ Rs.3.00 Lakhs/Unit	0	0.00	1	3.00	2	6.00	3	9.00
8	Strengthening the State Ghee and Oil Grading Laboratories	0	0.00	1	17.76	0	0.00	1	17.76
9	Strengthening the Commercial Grading Centres with Laboratory facilities (more numbers can also be included) @ Rs.5.00 Lakhs/Unit	0	0.00	1	5.00	1	5.00	2	10.00
10	Strengthening the infrastructure facilities in the Uzhavar Shandies	0	0.00	1	20.00	0	0.00	1	20.00
11	Construction of cold storage facilities in Uzhavar Shandies and in rural godowns	0	0.00	1	6.00	1	15.00	2	21.00
12	Office automation with computer facility for billing etc. in regulated markets @ Rs.0.50 Lakhs/Unit	0	0.00	2	1.00	1	0.50	3	1.50
13	Lawying and relawying of village link roads	0	0.00	0	0.00	0	0.00	0	0.00
14	Provision of Oil moisture meters @ Rs.0.20 Lakhs/Unit	0	0.00	6	1.00	4	0.80	10	1.80
15	Provision of Oil testing machines	0	0.00	0	0.00	0	0.00	0	0.00
16	Provision of Electronic weighing machines 100 Kg. @ Rs.0.25 Lakhs/Unit	0	0.00	2	0.50	1	0.25	3	0.75
17	Others if any (Specify) Tomato processing unit and market committee	1	144.00	0	0.00	0	0.00	1	144.00

Contd.,

Sl. No.	Possible Development Interventions	2009-10		2010-2011		2011-2012		Total	
		Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.
II.	**Publicity and Propaganda**								
1	Market committee-wise strengthening of the Publicity and Propaganda units	0	0.00	1	13.50	0	0.00	1	13.50
2	Market committee-wise purchase of extension education aids	0	0.00	1	1.25	0	0.00	1	1.25
3	Strengthening the regional Publicity and Propaganda wings of the Marketing Board and establishing more regional units	0	0.00	0	0.00	0	0.00	0	0.00
4	Pre-harvest campaigns on large scale @ Rs.0.05 Lakhs/Unit	32	1.60	96	4.80	96	4.80	224	11.20
5	Others if any (Specify)								
	Demonstration @ Rs.0.04 Lakhs/Unit	16	0.64	32	1.28	32	1.28	80	3.20
III.	**Public relations**								
1	Construction of bus-stop shed un front of the regulated markets and in selected villages @ Rs.0.20 Lakhs/No.	0	0.00	2	0.40	1	0.20	3	0.60
2	Taking up public relations activities in the villages @ Rs.0.20 Lakhs/2 Nos. / Block	0	0.00	8	1.60	8	1.60	16	3.20
3	Construction of common village threshing floors	0	0.00	8	22.00	8	22.00	16	44.00
4	Construction of village common discussion (Chavadi) hall @ Rs.1.00 Lakhs/No.	0	0.00	4	4.00	4	4.00	8	8.00

Contd.,

Sl. No.	Possible Development Interventions	2009-10		2010-2011		2011-2012		Total	
		Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.
5	Distribution of tarpaulins to small and marginal farmers @ Rs.0.05 Lakhs/No. @ 90% Subidy	200	10.00	200	10.00	100	5.00	500	25.00
6	Installation of electric light facilities including solar lights in the community threshing floors	0	0.00	0	0.00	0	0.00	0	0.00
7	Construction of over head tanks, laying of street pipelines and provision of public drinking water taps in a village or two wherein the market arrivals are more	0	0.00	1	2.00	1	2.00	2	4.00
8	Provision of Education loan to the children of a few regular customers @ Rs.1.00 Lakhs/Unit	0	0.00	5	0.50	10	1.00	15	1.50
9	Celebrating the regulated market fortnight in each district (just like co-operative weeks/fortnight) @ Rs.0.25 Lakhs/Unit	0	0.00	4	0.40	4	0.40	8	0.80
10	Others if any (Specify)	0	0.00	0	0.00	0	0.00	0	0.00
IV.	**Facilities to farmers / Stakeholders**								
1	Construction of rest/stay rooms for farmers I regulated markets	0	0.00	1	10.00	1	10.00	2	20.00
2	Construction/modernization of the common toiletry facilities in the regulated markets	0	0.00	1	0.50	2	1.00	3	1.50
3	Provision of parking lot facilities in the needy centers	0	0.00	0	0.00	0	0.00	0	0.00
4	Providing drinking water facilities to animals	0	0.00	0	0.00	0	0.00	0	0.00

Contd.,

Sl. No.	Possible Development Interventions	2009-10		2010-2011		2011-2012		Total	
		Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.
5	Provision of transport facilities/routing the vehicle to transport commodities to the regulated markets	0	0.00	0	0.00	0	0.00	0	0.00
6	Creating farm inputs retailing facilities	0	0.00	1	5.00	1	5.00	2	10.00
7	Others if any (Specify)	0	0.00	0	0.00	0	0.00	0	0.00
V.	**Any other innovative interventions (specify)**								
1	Provision of electronic display board for price information @ Rs.1.00 lakhs/No.	0	0.00	5	5.00	5	5.00	10	10.00
2	Providing touch screen facilities depicting the Post Harvest Technologies @ Rs.1.00 lakhs/No.	0	0.00	5	5	5	5	10	10.00
3	Provision of toll free mobile phone charge @ Rs.500/Month x 12 x 25 Nos.	0	0.00	25	1.5	25	1.5	50	3.00
4	Provision of Computer with Laser Printer, Fax Machine, Lap-Top & Digital Camera, Xerox Mchine, LCD Power Point Project with accessories	0	0.00	1	4.00	0	0.00	1	4.00
	Grand Total	**254**	**252.24**	**431**	**296.99**	**324**	**194.83**	**1009**	**744.06**

Budget Abstract

(Rs.in lakhs)

Sl.No.	Particulars	2008-09	2009-10	2010-11	2011-12	Total
A.	Original Project	70.85	75.15	73.54	76.91	296.45
B.	Additional Project DDA and Market Committee	-	252.24	296.99	194.83	744.06
	Grand Total	**70.85**	**327.39**	**370.53**	**271.74**	**1040.51**

6.7. SERICULTURE

6.7.1 Introduction

The main aim of NADP is to increase 4 per cent productivity in Agricultural sector. Sericulture is one of the major agri-allied sectors in Dharmapuri district. In this district, sericulture is practiced traditionally and by the introduction and implementation of latest technologies it is possible to enhance 4 per cent increase in production of sericulture. At present annual silkworm layings consumption in Dharmapuri District is 13.46 lakh and cocoon production is 8.52 lakh kgs. By the implementation of NADP Scheme the annual cocoon production can be increased to 8.86 lakh kgs. The need based technologies and other facilities required at Block level are assessed with the farmers representatives and field level staff.

6.7.2. Project Proposals

Following are the proposals for NADP under sericulture to achieve the desired goal.

Project - 1

i) Title of the Project : Support to Sericulture Farmers

ii) Project Components

- High Yielding Improved Mulberry Variety
- Micro Irrigation
- Natural Manuring
- Mechanisation
- Infant Rearing Room
- Infant Rearing Trays
- Separate Silkworm Rearing Shed
- Rearing appliances
- Disinfectants
- Rain water Harvest Ponds
- Training and Exposure Visit.

1) Plantation of improved High Yielding New Mulberry Varieties

Available old Mulberry varieties are low yielding ie. 10-12 M.T./AC/ year only. To improve the potentiality and leaf yield we are looking for improved high yielding New Mulberry Varieties, V1 Variety is giving 20-24 M.T/Ac. So it is essential to go for improved high yielding New Mulberry Variety.5000 saplings /Acre is required@ Rs.1/-sapling It can be provided with 75per cent subsidy.

2) Micro Irrigation

Ground water table is decreasing day by day. For economic utility of water, it is a must to go for Drip Irrigation, This only enables the farmer in water as well as labour saving.Rs.22000/Ac unit cost be provided with 90 percent subsidy.

3) Natural Manuring Compost and Vermi Composting

Repeated usage of Chemical fertilizer resulted in deplection of Soil fertility , which inturn affects vegetation living organisms as well as human health. To improve the Soil conditon it is better to go for Natural Manuring vermi cornpost, Intergrated nutrient Management also suggestive of Natural Manuring. This component accounts for Rs.30000 per unit with 90 per cent subsidy.

4) Mechanization with 75 per cent subsidy

i) **Pruning Machine :** Manual pruning causing injury damage to the mulberry plants. To avoid this and to machanize the system and to reduce labour cost, pruning machine along with two Seceature be provided. Approximate unit cost is Rs.12000/-.

ii) **Electric Sprayer : Disinfection** Pest and diseases are innate with Sericulture Industry. To Control pest incidence and out break of disease; Disinfectants and pesticides are to be sprayed with power operated sprayers.Approximate unit cost is Rs. 10000/-

iii) Compost: (Farm Waste) Cutter

Farm waste, weeds etc are to be chopped in to small pieces and used for compost manuring. For this chopping, Electric Farm waste cutter to be used . Approximate unit cost is Rs.15000/-.

iv) Digital Hygrometer

Microclimatic conditions playing. a vital role in the better management of Silk Worm crop harvest. To watch and manupulate the appropriate Temperature and Humidity , all the Silk Worm Rearing sheds are to be equipped with two Digital hygrometers, Which is essential for success of crop Approximate value is Rs.2000/-.

v) Hot Air Room Heater

During winter season, naturally there is decrease in Temperature, which leads unhealthy of Silk Worm. To maintain optimum temperature. Silk worm rearing sheds are to be equipped with Room Heaters. Approximate cost is Rs.2000/-.

vi) Room Water Sprayer

During summer season there is abnormal raise in Temperature Which leads to Bacterial & Virul disease in silkworms. To maintain appropriate temperature and Relative –Humidity , it is better to install the water drippers inside and outside the rearing house to keep the sheds cool. Approximate unit cost is Rs.9000/-.

5) Chawkie Rearing Room

Infant age silk worms are in need of High Temperature and High Humidity which enables successful harvest Cocoon crops, For this , compact separate Chawkie room is essential for healthy growth of little infant Silk Worms. 10’ x 10’ Floor area Room is essential for infant Rearing Room. Approximate Value is Rs.30000/- with 75per cent subsidy.

6) Chawkie Trays

Chawkie concept suggestive of Chawkie Trays is helpful in maintaining the temperature and humidity in hygene condition.20 Chawkie trays are essential to rear 200 dfls at a time. Approximate value in 8000/- with 75 per cent subsidy.

7) Separate Rearing Shed

Previously farmers were using dwelling houses for silk worm rearing , which resulted in poor harvest and crop failures. In order to avoid crop failures , separate rearing shed is a must to maintain hygene in Silk Worm Rearing.1500,1000,700, or 400 Sq .ft Floor area shed has to be constructed for healthy silkworm rearing Approximate value is Rs.1.5, 1.00, 0.60, 0.40, lakh. respectively with 50 per cent subsidy.

8) Rearing Appliance

Traditional practice of bamboo trays rearing has to be replaced with shoot rearing method. It is more hygiene & labour saving. 2000 Sq.ft and 700 Sq.ft bed area to be provided . Approximate value is Rs.50000/- and Rs 30000/-with 50 per cent subsidy.

9) Disinfectants

Silk worms are naturally susceptible to diseases as it pases 5 to 6 Generations per year. Maintaining hygienic condition in silk worm rearing houses and in rearing beds is the prime factor for better cocoon crop. Hence almost all Sericulturist are to be provided with appropriate quality disinfectents sufficiently.Approximate Value is Rs.3000 be provided with 90 per cent Subsidy.

10) Rain water Harvest Ponds

Precious rain water to be utilized without any waste by constructing rain water harvest ponds by each farmer.20 X 20 ‘ size pond has to be maintain Approximate value is Rs.10000/- be provided with 90 per cent subsidy.

11) Training and Study Tour

To know the new advancements in sericulture, farmers have to under go training periodically to update the day to day scientific knowledge. There fore, farmers should participate in study tours to advanced sericultural states and districts to learn and adopt new technologies. Approximate unit cost is Rs.2000 with 100 per cent subsidy.

Project - 2

i) Title of the Project : Support to basic Seed Production

The basic seed farm, Sitheri has been established to catter the need of the Government Grainage, Dharmapuri. In this Farm, Pure Mysore(Local) parental race is reared to produce the basic seed .At present the seed cocoon production per annum is 3.89 lakh. Chawkie farm Paparapatty is providing robust healthy infectant warms to farmers after rearing silkworms upto second stage.

Preventive measures have to be taken if any Transovarial diseases are observed. Importance is to be given to the quality parameters to maintain the stability of the next generation, which is a commercial Crop. The following basic amenities are essential to maintain the valid parameters of silk worm breed.

Estimated Value in Lakhs

a) Erection of Bore well with Motor 4 Nos.	-	3.00
b) Rain Water harvesting Ponds 4 Nos.	-	1.00
c) Rearing appliances	-	1.00
d) Disinfection Sprayer 4 Nos	-	1.00
e) Replacement of Mulberry with V1 Variety	-	5.00
f) Heaters and Humidifiers (10 + 10)	-	2.00
Total		**13.00**

The entire funds (100per cent) for the above mentioned facilities to be provided from NADP.

Seed Grainage

The Basic Seed Grainage has been established to produce disease free layings and supply to the farmers of Dharmapuri District. At present layings production per annum is 4.31 lakhs. It will be increased up to 4.5 lakhs. To prepare the cross bread layings, synchronisation of the local female moths with that of the male Bivoltine moths is a must. Care should be taken to maintain the optimum temperature and humidity in the cocoon preservation, moth emergency, and egg laying rooms in the Grainage.

i.	Implementing Agency	:	Sericulture Department
ii.	Location	:	Dharmapuri
iii.	Stake Holders	:	Farmers
iv.	Time Frame	:	2008-2012
v.	Total Cost	:	Rs. 2083.52 lakhs

6.7.3 Total Budget Outlay

The detailed components with the associated budget requirements yearwise for sericulture activities under NADP are presented in Table 6.10. From the table, it could be noted that the total budget works out to rs. 2083.52 lakhs for sericulture development in Dharmapuri district during XI plan period under NADP.

Table 6.10 Project Proposal of Sericulture Sector 2008-2012

S. No	Component	Unit cost	2008 – 09			2009 – 10			2010 – 11			2011 – 2012			Total		
		(Rs. La)	Unit	TC.	Sub	Unit	TC.	Sub	Unit	TC.	Sub	Unit	TC.	Sub	Unit	TC.	Subsidy
1.	Improved Variety	0.05	160	8.00	7.20	160	8.00	7.20	160	8.00	7.20	160	8.00	7.20	640	32	28.80
2	Training and Study Tour	0.02	400	8.00	8.00	400	8.00	8.00	400	8.00	8.00	400	8.00	8.00	1600	32	32.00
3	Organic Manures	0.30	160	48.00	43.20	160	48.00	43.20	160	48.00	43.20	160	48.00	43.20	640	192	172.80
4	Disinfectants	0.03	400	12.00	10.80	400	400	12.00	10.80	400	400	12.00	10.80	400	1600	48	43.20
5	Rainwater harvesting pond	0.10	160	16.00	14.40	160	16.00	14.40	160	16.00	14.40	160	16.00	14.40	640	64	57.60
6	Drip Irrigation	0.22	160	35.20	31.68	160	35.20	31.68	160	35.20	31.68	160	35.20	31.68	640	140	126.72
7	Mechanization	0.50	160	80.00	60.00	160	80.00	60.00	160	80.00	60.00	160	80.00	60.00	640	320	240.00
8	Chawkie Room	0.30	160	48.00	36.00	160	48.00	36.00	160	48.00	36.00	160	48.00	36.00	640	192	144.00
9	Chawkie Trays	0.08	160	12.80	9.60	160	12.80	9.60	160	12.80	9.60	160	12.80	9.60	640	51	38.40
10	Separate Rearing Shed	2.00	80	160.00	120.00	80	160.00	120.00	80	160.00	120.00	80	160.00	120.00	320	640	480.00
11	Separate Rearing Shed	1.00	160	160.00	120.00	160	160.00	120.00	160	160.00	120.00	160	160.00	120.00	640	640	480.00
12	Rearing appliances	0.50	160	80.00	60.00	160	80.00	60.00	160	80.00	60.00	160	80.00	60.00	640	320	240.00
	Total		**2320**	**668.00**	**520.88**	**2320**	**668.00**	**520.88**	**2320**	**668.00**	**520.88**	**2320**	**668.00**	**520.88**	**9280**	**2672**	**2083.52**

6.8. PUBLIC WORKS DEPARTMENT

6.8.1. Introduction

The Public Works Department and Panchayat union tanks, ponds and supply channels play an important role in the irrigation of Dharmapuri district. But they have to be desilted and strengthened periodically to serve their purpose. New check dams and flood protection walls have to be constructed for water conservation.

6.8.2 Project Proposals

The following proposals are put forth for the development activities in the Public Works Department (PWD) under this NADP.

Project - I

i. Title of the Project: **Rehabilitation and improvement of Tanks, channels, ponds in Dharmapuri district**

ii. Project Components

a) Rehabilitation and improvement of tanks
b) Rehabilitation and improvement of lakes
c) Rehabilitation and improvement of ponds
d) Rehabilitation and improvement of channels
e) Construction of culverts

iii. Implementing Agency	:	Public Works Department
iv. Location	:	Dharmapuri
v. Stake Holders	:	Farmers
vi. Time Frame	:	2008-2012
Total Cost	**:**	**Rs. 2140.50 lakhs**

The details of the works proposed blockwise and yearwise with the associated costs are presented in Table 611. The total budget outlay required is Rs.2140.50 lakhs, as could be discussed from the table.

Table 6.11 Public Works proposed under NADP Scheme in Dharmapuri District for 2008-2009 to 2011-2012

Sl. No.	Block	Name of Work	Estimate Amount (Rs. in Lakhs)	Registered Ayacut in Ha.	Irrigated area in Ha.	Gap Ha.
		2008-2009				
1	Nallampalli	Rehabilitation and improvements to Mariammankovil pallam anicut and its channels in Palayampudhur village of Dharmapuri Taluk & District.	25.00	102.19	42.36	59.83
2	Nallampalli	Rehabilition and improvements to Elagiri tank	15.00	46.37	22.27	24.10
3	Nallampalli	Rehabilitation and improvments to RMC of THRP dam in Dharmapuri	30.00	829.95	498.95	331.00
4	Karimangalam	Rehabilitation and improvements to 15 PWD anicuts in Kambainallur Minor Basin (Poolapatty river) in Palacode, Dharmapuri Taluk and District.	100.00	233.17	126.43	106.74
5	Palacode	Rehabilitation and improvements to Kumarachetty tank and its surplus course in Athimutlu village of Palacode Taluk in Dharmapuri District.	74.00	238.77	0.00	238.77
6	Dharmapuri	Rehabilitation and Improvements to 5 Anicuts (Makkan anicut, Ramalingamudhaliyar anicut, Boothalappan anicut, Chowlahalli anicut, Mylambadi anicut) and supply channel in Dharmapuri Taluk and District.	50.00	63.56	45.74	17.82
7	Palacode	Rehabilitation and improvments of Pulikkal tank.	20.00	90.00	70.00	20.00
8	Morappur	Rehabilitation and improvements to RMC and LMC of Ichambadi anicut and its channels in Harur Taluk of Dharmapuri District.	40.00	1214.05	728.43	485.62
9	Harur	Rehabilitation and improvments to Narippalli anicut Irrigaion channel in Narippalli village of Harur Taluk in Dharmapuri District.	40.00	121.46	85.02	36.44

Table 6.11 Contd…..

Sl. No.	Block	Name of Work	Estimate Amount (Rs. in Lakhs)	Registered Ayacut in Ha.	Irrigated area in Ha.	Gap Ha.
10	Harur	Rehabilitation and improvments to Mylon Eri with supply channel & Irrigation channel in Chellampatti village of Harur Taluk in Dharmapuri District.	15.00	42.06	29.44	12.62
11	Morappur	Improvements to 8 Nos (Maniyambadi eri, Pudu eri, Linganaikenhalli, Periya eri, Nallagudlahalli eri, Basweswaran anicut, Selva goundan eri, Chinnappan Kuttai) of Ex-zamine tanks of Pappireddipatti Block	56.00	84.45	38.03	46.42
12	Pappireddipatti	Rehabilitation and improvements to Alapuram anicut and supply channel feeding Onthiyampatti & Thenkaraikottai tanks in Pappireddipatti Taluk of Dharmapuri District.	36.00	302.50	163.54	138.96
13	Pappireddipatti	Rehabilitation and improvements to Elumi-chiamperumal koil anicut and its supply channels in Pappireddipatti Taluk of Dharmapuri District.	15.00	188.91	105.79	83.12
14	Pappireddipatti	Rehabilitation and improvements to field channel of Venkatasamudram anicut supply channel and Venkatasamudram tank in Pappireddipatti Taluk of Dharmapuri District.	45.00	52.20	30.83	21.37
15	Pappireddipatti	Rehabilitation and improvements to Branch canal 1A of RMC of Vaniar Dam in Pappireddipatti Taluk of Dharmapuri District.	35.00	264.13	145.27	118.86
16	Karimangalam	Rehabilitation and improvements to Pungan Eri.	10.00	38.44	17.00	21.44
17	Karimangalam	Rehabilitation and improvements to Pappan Eri.	9.50	21.85	8.50	13.35
		Total	**615.50**	**3934.06**	**2157.60**	**1776.46**
		2009-2010				

Table 6.11 Contd…..

Sl. No.	Block	Name of Work	Estimate Amount (Rs. in Lakhs)	Registered Ayacut in Ha.	Irrigated area in Ha.	Gap Ha.
18	Nallampalli	Rehabilitation and improvements to Jalar anicut & Uthukuli anicut in Dharmapuri Taluk & District.	10.00	22.21	15.54	6.67
19	Nallampalli	Rehabilitation and improvements to Pudur Peria Eri (Erupalli Eri).	10.00	43.25	22.05	21.20
20	Nallampalli	Rehabilitation and improvments to Dhalavai halli tank.	10.00	64.58	30.35	34.23
21	Dharmapuri	Rehabilitation and improvments to Manipuram anicut & supply channel in Thippireddihalli village of Dharmapuri Taluk & District.	15.00	91.09	68.83	22.26
22	Karimangalam	Rehabilitation and improvements to Mahend-ramangalam tank.	30.00	74.06	31.85	42.21
23	Palacode	Rebailitation and improvements to Earthern main canal from LS 1900 m to 5100 m of CRP Dam in Palacode Taluk.	95.00	758.40	402.00	356.40
24	Palacode	Rebailitation and improvements to Panangalli tank.	15.00	46.15	36.15	10.00
25	Harur	Rehabilitation and improvments to Velanoor anicut Irrigation channel in Velanoor of Harur Taluk in Dharmapuri District.	25.00	87.04	60.73	26.31
26	Morappur	Rehabilitation and improvments to Ichambadi LMC to providing cut and over at LS 9-10km in Harur Taluk of Dharmapuri District.	50.00	1214.05	728.43	485.62
27	Pappireddipatti	Rehabilitation and improvements to 7 PWD anicuts in Peeniar river course in Pappireddipatti Taluk of Dharmapuri District.	54.00	88.60	43.41	45.19
28	Pappireddipatti	Providing B.T.Road on top of Jeep track right main canal of Vaniar Reservoir Project (12km.)	96.00	---	---	---

Table 6.11 Contd…..

Sl. No.	Block	Name of Work	Estimate Amount (Rs. in Lakhs)	Registered Ayacut in Ha.	Irrigated area in Ha.	Gap Ha.
29	Pappireddipatti	Construction of 10 culverts across left main canal of Vaniar Reservoir Project.	20.00	---	---	---
30	Pappireddipatti	Rehabilitation and Improvements to Periya Eri & Chinna Eri and its supply channel.	22.00	57.53	33.64	23.89
31	Pappireddipatti	Rehabilitation and Improvements to Meenar anicut and its supply channel feding to Bairanatham Eri.	35.00	16.29	6.52	9.77
			487.00	**2563.25**	**1479.50**	**1083.75**
		2010-2011				
32	Nallampalli	Rehabilitation and improvements to Laligam big tank	10.00	49.64	22.82	26.82
33	Nallampalli	Rehabilitation and improvements to Palavadi tank.	15.00	57.5	26.45	31.05
34	Dharmapuri	Rehabilitation and improvments to Noolahalli tank and supply channel and feeder channel in Noolahalli village of Dharmapuri Taluk & District.	15.00	47.32	35.98	11.34
35	Karimangalam	Rehabilitation and improvments to Thoppaipallam tank	25.00	78.51	32.97	45.54
36	Harur	Rehabilitation and improvements to Muniyappan kovilpallam eri with channels in Veerapanaickan patty village of Harur Taluk in Dharmapuri District.	15.00	60.73	42.51	18.22
37	Harur	Rehabilitation and improvements to Two anicuts in Varattar river.	20.00	118.80	65.37	53.43
38	Morappur	Rehabilitation and improvments to Ichambadi RMC to providing cut and over at LS 22-23km in Harur Taluk of Dharmapuri District.	50.00	1214.05	728.43	485.62

Table 6.11 Contd…..

Sl. No.	Block	Name of Work	Estimate Amount (Rs. in Lakhs)	Registered Ayacut in Ha.	Irrigated area in Ha.	Gap Ha.
39	Morappur	Rehabilitation and improvments to Six anicuts in Semada-kuppam river and Poolapatti river in Morappur Block.	60.00	155.09	85.30	69.79
40	Pappireddipatti	Construction of 10 culverts across right main canal of Vaniar Reservoir Project.	20.00	---	---	---
41	Pappireddipatti	Special repairs to left main canal from LS 0-2000m including deep cut portion of Vaniar Reservoir Project.	10.00	92.99	54.87	38.12
42	Pappireddipatti	Providing Bridge across Meenar river Vaniar Reservoir Project.	20.00	---	---	---
43	Pappireddipatti	Providing paddle shutter with locking arrangements for canal sluices of left main canal and right main canal of Vaniar Reservoir Project.	10.00	---	---	---
44	Pappireddipatti	Rehabilitation and Improvements to Five check dams and supply channel (Solankinaru odai check dam, Peraripudu anicut, Mambari anicut, Poonthurai odai anicut, Erumakadai odai anicut) of Chitteri Hill area.	30.00	62.17	18.65	43.52
45	Pappireddi-patti	Rehabilitation and Improvements to Branch canal 2 of RMC from LS 500 - 3250m of Vaniyar Dam.	65.00	276.83	163.33	113.50
46	Karimangalam	Rehabilitation and improvments to Bommanoor tank in Palacode Taluk of Dharmapuri District.	30.00	76.90	34.39	42.51
47	Palacode	Rehabilitation and improvments to CRP Branch canal-II from LS 100-2000m in Palacode Taluk of Dharmapuri District.	34.00	118.97	50.58	68.39
48	Palacode	Rehabilitation and improvments of KGRP LMC from LS 2.50 to 8.10km of Palacode Taluk in Dharmapuri District.	50.00	1619.50	1000.00	619.50

Table 6.11 Contd…..

Sl. No.	Block	Name of Work	Estimate Amount (Rs. in Lakhs)	Registered Ayacut in Ha.	Irrigated area in Ha.	Gap Ha.
49	Palacode	Rehabilitation and improvments to CRP Branch canal – I in Palacode Taluk of Dharmapuri District.	10.00	68.80	26.83	41.97
50	Palacode	Rehabilitation and improvments to Pulikkal tank in Palacode Taluk of Dharmapuri District.	7.00	90.74	54.41	36.29
51	Palacode	Rehabilitation and improvments to Sangampasavanthalav tank in Palacode Taluk of Dharmapuri District.	9.00	137.24	75.48	61.76
			505.00	**4325.78**	**2518.37**	**1807.37**
		2011-2012				
52	Nallampalli	Rehabilitation and improvments to Saman eri	10.00	66.80	32.13	34.67
53	Pappireddipatti	Construction of causeway across Vaniar river near Mullikadu at Pappireddipatti Taluk.	15.00	---	---	---
54	Pappireddipatti	Providing B.T.Road on top of Jeep track for left main canal of Vaniar Reservoir Project (19km).	152.00	---	---	---
55	Harur	Rehabilitation and improvments to Kanakkan anicut supply channel in Harur Taluk in Dharmapuri District.	20.00	101.21	55.67	45.54
56	Harur	Rehabilitation and improvments to Kumarapatti anicut	20.00	46.92	27.21	19.71
57	Morappur	Rehabilitation and improvments to Ichambadi anicut stilling basin in Harur Taluk of Dharmapuri District.	50.00	2530.50	971.24	1559.26
58	Morappur	Rehabilitation and improvments to supply channel link channel of 18 tanks of Pothiyampallam anicut system.	116.00	214.17	85.67	128.50

Table 6.11 Contd…..

Sl. No.	Block	Name of Work	Estimate Amount (Rs. in Lakhs)	Registered Ayacut in Ha.	Irrigated area in Ha.	Gap Ha.
59	Morappur	Rehabilitation and improvments to 6 Ex-zamine tank in Harur Taluk (Irungal eri, Vannikolan eri, Bedahalli eri, Thippampatti eri, Vaiyambatti eri, Murugan eri).	30.00	99.78	55.89	46.89
60	Pennagaram	Rehabilitation and improvements to strengthening bunds, lining for 5 tanks in Pennagaram Taluk.	70.00	312.00	134.16	177.84
61	Pennagaram	Rehabilitation and improvments of canal and improvments to Nagavathy Dam in Pennagaram Taluk.	50.00	806.55	459.73	346.82
			533.00	**4177.93**	**1821.70**	**2359.23**
		TOTAL	**2140.50**	**15001.02**	**7977.17**	**7026.81**

6.9 FORESTRY

Introduction

Dharmapuri district has 1,63,817 ha. under forest constituting 36.40 per cent of the geographical area. Pappireddipatti, Harur and Pennagaram Blocks have vast stretch of forest area. The area under forests in Dharmapuri district is more than the desired level of 33 per cent of the total geographical area, as required in the Indian Forest Act.

Project Proposals

In order to preserve the forest fauna and flora, the following proposals are made under NADP for Dharmapuri district.

Project - 1

i. Title of the Project : Afforestation Programme to bring Dense Forest Cover

ii. Project Components

Planting with forest tree species @ Rs.3.00 lakh for 20 ha/ block /year. For entire block for 4 years = Rs.12.0 lakhs For entire district (8 x 12) = Rs.96.00 lakhs

iii. Implementing Agency	:	Forest Department
iv. Location	:	Dharmapuri
v. Stake Holders	:	Village community ecosystem
vi. Time Frame	:	2008-2012
vii. Total Cost	:	Rs. 96.00 lakh

Project - 2

i) Title of the Project : Strengthening Agro-Forestry System of Dharmapuri District

ii) Project Components

Free supply, planting & maintenance of seedlings @ Rs.1.50 lakh/ 50 village/ block /year.

For entire block for 4 years = Rs.6.00 lakh

For entire district = 8 x 6. = Rs.48.00 lakhs

iii) Implementing Agency	:	Forest Department
iv) Location	:	Dharmapuri
v) Stake Holders	:	Village community
vi) Time Frame	:	2008-2012
vii) Total Cost	:	Rs. 48.00 lakh

Project – 3

i) Title of the Project : Soil Moisture Conservation & Strengthening Water Harvesting Structures

ii) Project Components

a) Percolation ponds @ Rs.3.50 lakhs/ unit.
b) For each block 5 units /annum(5x3.5) = Rs. 17.50 lakh
c) For each block for 4 years (4x 17.5) = Rs. 70.00 lakh
d) Therefore for the district = 8x70.00 = Rs. 560.00 lakh
e) Construction of check dams@ Rs.2.50 lakhs / unit
f) For each block 10 units / annum (10x2.5) = Rs. 25.00 lakh
g) For entire block for 4 years (4x 25) = Rs. 100.00lakh
h) Therefore for the district = 8 x 100 = Rs. 800.00 lakh

iii) Implementing Agency : Forest Department

iv) Location : Dharmapuri

v) Stake Holders : Village community

vi) Time Frame : 2008-2012

vii) Total Cost : Rs. 1360.00 lakhs

Project - 4

i) Title of the Project : Wild life Conservation-Prevention of Man & Animal Conflict

ii) Project Components

Erection of solar fence @ Rs 1.60 lakh / km

Erection of solar fence for the district (1.6 x 222) = Rs. 364.80 lakh

iii) Implementing Agency : Forest Department

iv) Location : Dharmapuri

v) Stake Holders : Village community

vi) Time Frame : 2008-2012

vii) Total Cost : Rs. 364.80 lakh

TABLE 6.12 Project Proposal for Forestry Component

Dharmapuri

Sl. No.	Component	Unit Cost Rs.	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	No. of Units	Total Cost
1	Afforestation		20 ha	3.00	20 ha	3.00	20 ha	3.00	20 ha	3.00	80 ha	12.00
2	Agro-Forestry (Free Supply, Planting & Maintenance of Seedlings)		50 villages	1.50	50 villages	1.50	50 villages	1.50	50 villages	1.50	200 villages	6.00
3	Soil Moisture Conservation / Water Harvesting											
	a) Percolation Ponds	3.5 lakhs	5.00	17.50	5.00	17.50	5.00	17.50	5.00	17.50	20.00	70.00
	b) Check Dams	2.50 lakhs	10.00	25.00	10.00	25.00	10.00	25.00	10.00	25.00	40.00	100.00
4	Wildlife - Prevention of Man and Animal conflict											
	a) Erection of Solar Fence	1.60	4 km	6.40	4 km	6.40	4 km	6.40	4 km	6.40	16 km	25.60
	Total			**53.40**		**53.40**		**53.40**		**53.40**		**213.60**

TABLE 6.12 Forestry Component - Estimate Cost

Block : NALLAMPALLI

Sl. No.	Component	Unit Cost Rs.	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	No. of Units	Total Cost
1	Afforestation		20 ha	3.00	20 ha	3.00	20 ha	3.00	20 ha	3.00	80 ha	12.00
2	Agro-Forestry (Free Supply, Planting & Maintenance of Seedlings)		50 villages	1.50	50 villages	1.50	50 villages	1.50	50 villages	1.50	200 villages	6.00
3	Soil Moisture Conservation / Water Harvesting											
	a) Percolation Ponds	3.5 lakhs	5.00	17.50	5.00	17.50	5.00	17.50	5.00	17.50	20.00	70.00
	b) Check Dams	2.50 lakhs	10.00	25.00	10.00	25.00	10.00	25.00	10.00	25.00	40.00	100.00
4	Wildlife - Prevention of Man and Animal conflict											
	a) Erection of Solar Fence	1.60	4 km	6.40	4 km	6.40	4 km	6.40	4 km	6.40	16 km	25.60
	Total			**53.40**		**53.40**		**53.40**		**53.40**		**213.60**

TABLE 6.12 Forestry Component - Estimate Cost

Block : KARIMANGALAM

Sl. No.	Component	Unit Cost Rs.	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	No. of Units	Total Cost
1	Afforestation		20 ha	3.00	20 ha	3.00	20 ha	3.00	20 ha	3.00	80 ha	12.00
2	Agro-Forestry (Free Supply, Planting & Maintenance of Seedlings)		50 villages	1.50	50 villages	1.50	50 villages	1.50	50 villages	1.50	200 villages	6.00
3	Soil Moisture Conservation / Water Harvesting											
	a) Percolation Ponds	3.5 lakhs	5.00	17.50	5.00	17.50	5.00	17.50	5.00	17.50	20.00	70.00
	b) Check Dams	2.50 lakhs	10.00	25.00	10.00	25.00	10.00	25.00	10.00	25.00	40.00	100.00
4	Wildlife - Prevention of Man and Animal conflict											
	a) Erection of Solar Fence	1.60	3 km	4.80	3 km	4.80	3 km	4.80	3 km	4.80	12 km	19.20
	Total			**51.80**		**51.80**		**51.80**		**51.80**		**207.20**

TABLE 6.12 Forestry Component - Estimate Cost

Block : PALACODE

Sl. No.	Component	Unit Cost Rs.	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	No. of Units	Total Cost
1	Afforestation		20 ha	3.00	20 ha	3.00	20 ha	3.00	20 ha	3.00	80 ha	12.00
2	Agro-Forestry (Free Supply, Planting & Maintenance of Seedlings)		50 villages	1.50	50 villages	1.50	50 villages	1.50	50 villages	1.50	200 villages	6.00
3	Soil Moisture Conservation / Water Harvesting											
	a) Percolation Ponds	3.5 lakhs	5.00	17.50	5.00	17.50	5.00	17.50	5.00	17.50	20.00	70.00
	b) Check Dams	2.50 lakhs	10.00	25.00	10.00	25.00	10.00	25.00	10.00	25.00	40.00	100.00
4	Wildlife - Prevention of Man and Animal conflict											
	a) Erection of Solar Fence	1.60	5 km	8.00	5 km	8.00	5 km	8.00	5 km	8.00	20 km	32.00
	Total			**55.00**		**55.00**		**55.00**		**55.00**		**220.00**

TABLE 6.12 Forestry Component - Estimate Cost

Block : PENNAGARAM

Sl. No.	Component	Unit Cost Rs.	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	No. of Units	Total Cost
1	Afforestation		20 ha	3.00	20 ha	3.00	20 ha	3.00	20 ha	3.00	80 ha	12.00
2	Agro-Forestry (Free Supply, Planting & Maintenance of Seedlings)		50 villages	1.50	50 villages	1.50	50 villages	1.50	50 villages	1.50	200 villages	6.00
3	Soil Moisture Conservation / Water Harvesting											
	a) Percolation Ponds	3.5 lakhs	5.00	17.50	5.00	17.50	5.00	17.50	5.00	17.50	20.00	70.00
	b) Check Dams	2.50 lakhs	10.00	25.00	10.00	25.00	10.00	25.00	10.00	25.00	40.00	100.00
4	Wildlife - Prevention of Man and Animal conflict											
	a) Erection of Solar Fence	1.60	8 km	12.80	8 km	12.80	8 km	12.80	8 km	12.80	32 km	51.20
	Total			**59.80**		**59.80**		**59.80**		**59.80**		**239.20**

TABLE 6.12 Forestry Component - Estimate Cost

BLOCK : HARUR

Sl. No.	Component	Unit Cost Rs.	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	No. of Units	Total Cost
1	Afforestation		20 ha	3.00	20 ha	3.00	20 ha	3.00	20 ha	3.00	80 ha	12.00
2	Agro-Forestry (Free Supply, Planting & Maintenance of Seedlings)		50 villages	1.50	50 villages	1.50	50 villages	1.50	50 villages	1.50	200 villages	6.00
3	Soil Moisture Conservation / Water Harvesting											
	a) Percolation Ponds	3.5 lakhs	5.00	17.50	5.00	17.50	5.00	17.50	5.00	17.50	20.00	70.00
	b) Check Dams	2.50 lakhs	10.00	25.00	10.00	25.00	10.00	25.00	10.00	25.00	40.00	100.00
4	Wildlife - Prevention of Man and Animal conflict											
	a) Erection of Solar Fence	1.60	15 km	24.00	15 km	24.00	15 km	24.00	15 km	24.00	60 km	96.00
	Total			**71.00**		**71.00**		**71.00**		**71.00**		**284.00**

TABLE 6.12 Forestry Component - Estimate Cost

Block : PAPPIREDDIPATTI

Sl. No.	Component	Unit Cost Rs.	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	No. of Units	Total Cost
1	Afforestation		20 ha	3.00	20 ha	3.00	20 ha	3.00	20 ha	3.00	80 ha	12.00
2	Agro-Forestry (Free Supply, Planting & Maintenance of Seedlings)		50 villages	1.50	50 villages	1.50	50 villages	1.50	50 villages	1.50	200 villages	6.00
3	Soil Moisture Conservation / Water Harvesting											
	a) Percolation Ponds	3.5 lakhs	5.00	17.50	5.00	17.50	5.00	17.50	5.00	17.50	20.00	70.00
	b) Check Dams	2.50 lakhs	10.00	25.00	10.00	25.00	10.00	25.00	10.00	25.00	40.00	100.00
4	Wildlife - Prevention of Man and Animal conflict											
	a) Erection of Solar Fence	1.60	15 km	24.00	15 km	24.00	15 km	24.00	15 km	24.00	60 km	96.00
	Total			**71.00**		**71.00**		**71.00**		**71.00**		**284.00**

TABLE 6.12 Forestry Component - Estimate Cost

Block : MORAPPUR

Sl. No.	Component	Unit Cost Rs.	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	No. of Units	Total Cost
1	Afforestation		20 ha	3.00	20 ha	3.00	20 ha	3.00	20 ha	3.00	80 ha	12.00
2	Agro-Forestry (Free Supply, Planting & Maintenance of Seedlings)		50 villages	1.50	50 villages	1.50	50 villages	1.50	50 villages	1.50	200 villages	6.00
3	Soil Moisture Conservation / Water Harvesting											
	a) Percolation Ponds	3.5 lakhs	5.00	17.50	5.00	17.50	5.00	17.50	5.00	17.50	20.00	70.00
	b) Check Dams	2.50 lakhs	10.00	25.00	10.00	25.00	10.00	25.00	10.00	25.00	40.00	100.00
4	Wildlife - Prevention of Man and Animal conflict											
	a) Erection of Solar Fence	1.60	3 km	4.80	3 km	4.80	3 km	4.80	3 km	4.80	12 km	19.20
	Total			**51.80**		**51.80**		**51.80**		**51.80**		**207.20**

6.9.3. Budget Outlay Summary

The projectwise budget outlays proposed for XI plan and NADP for forest preservation activities in Dharmapuri district is summarized below in Table 6.13.

Table 6.13. Budget Summary for Forestry Sector

(Rupees in lakhs)

S.No.	Project Name	Budget
1	Afforestation programme to bring dense forest cover	96.00
2	Strengthening agro-forestry system of Dharmapuri district	48.00
3	Soil moisture conservation & strengthening water harvesting structures	1360.00
4	Wild life conservation – Prevention of Man & Animal conflict	364.80
	Total	**1868.80**

For the preservation and development of forest wealth in Dharmapuri district budget outlay works out to Rs. 1868.80 lakhs during XI plan under NADP.

6.10. Overall Budget Outlay

The budget outlay of overall sectors proposed are indicated in Table 6.9.10 below in sum, the total budget outlay for the development of agricultural and allied sectors during XI plan period under NADP in Dharmapuri district is **Rs.28513.19 lakhs.**

Table 6.14 Overall Budget outlay under NADP – Dharmapuri District

(Rs. in Lakhs)

Sl. No.	Name of the Sector	Year				Total
		2008-09	2009-10	2010-11	2011-12	
1	Agriculture	1907.32	1911.72	1918.52	1925.32	7662.88
2	Horticulture	695.20	555.82	591.01	585.28	2427.29
3	Animal Husbandry	480.16	196.47	194.38	192.87	1063.80
4	Fisheries	214.86	67.22	19.36	16.36	317.80
5	Agricultural Engineering	2877.28	3022.96	3164.94	3303.44	12368.62
6	Agricultural Marketing	70.85	327.39	370.53	271.74	1040.51
7	Sericulture	520.88	520.88	520.88	520.88	2083.52
8	Public Works Department	615.50	487.00	505.00	533.00	2140.50
9	Forestry	467.20	467.20	467.20	467.20	1868.80
	Total	**7849.25**	**7556.66**	**7751.82**	**7816.09**	**30973.72**

NADP- DISTRICT AGRICULTURAL PLAN- MEETING AT COLLECTORATE, DHARMAPURI

The NADP – DAP (for 2008-2012) meeting was held at Collectorate, Dharmapuri on 09.05.2008 After Noon. The concerned staff of the following Departments have attended the meeting.

1. Agriculture.
2. Horticulture
3. Agricultural Engineering
4. Animal Husbandry
5. Sericulture
6. Agricultural Marketing and
7. Public Works Department

Dr. K.M. Shivakumar, Asst. Professor of Agricultural Economics, Department of Agricultural Economics, Centre for Agricultural and Rural Development Studies, Tamil Nadu Agricultural University, Coimbatore – 641 003 and Dr Murugan, Professor and Head (Animal Husbandry) UTRC, TANUVAS, Dharmapuri have presented the DAP in brief. The following points were discussed in the meeting.

1. All departments should give the priority list
   a. Based on Budget
   b. Based on activities.
2. Forestry may be included
3. Department wise priority based on budget is given below as interpreted in the meeting

A. Agriculture

1. Increasing Water Use Efficiency (WUE) and Fertilizer Use Efficiency (FUE) in sugarcane
2. Increasing soil fertility
3. Increasing production in millets
4. Increasing production in pulses and oil seeds
5. Expanding area in ELS Cotton

B. Horticulture

1. Precision Farming
2. 10 ha mega demonstration plot
3. Promoting Farmers Association
4. Disease free materials for Tapioca
5. Tractor mounted steam boiler for turmeric processing

C. Agricultural Engineering

1. Water management – PVC pipe laying
2. SWC works – Terrace support wall
3. Water harvesting structures - Percolation ponds

D. Agricultural Marketing

1. Market infrastructure activities - Tarpaulin
2. purchase of storage bins
3. Exposure visits – outside States
4. Publicity - RM

E. Public Works Department

1. Rehabilitation and strengthening of water bodies at different river basins
2. Detailed plan for each block is needed

F. Sericulture

1. Rearing shed
2. Rearing appliances
3. Chawkie room & Trays
4. Mechanization
5. Organic Manuring
6. Rainwater harvesting

G. Animal Husbandry

1. Weighing machines in cattle shandies
2. Fisheries through TANUVAS

TABLE OF CONTENTS

LIST OF TABLES

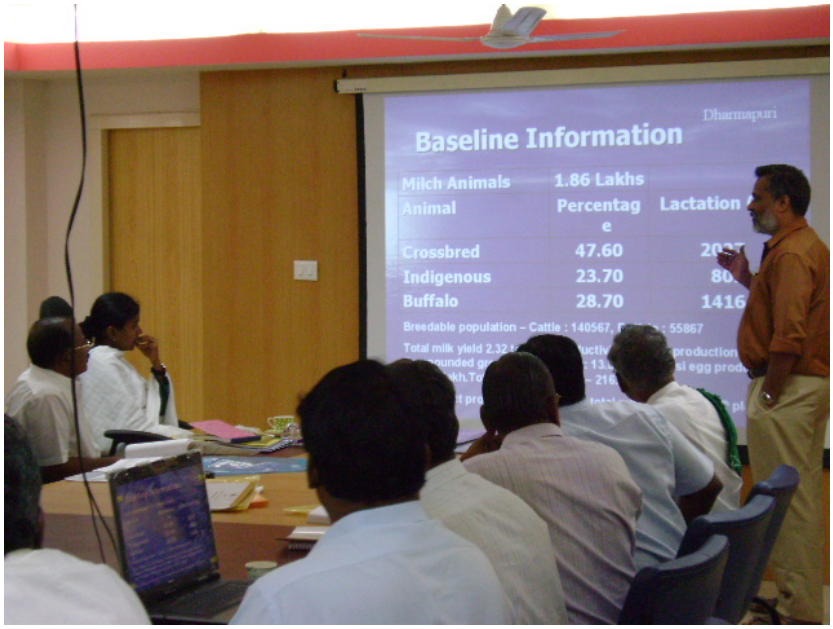
List of Tables Contd….

LIST OF MAPS

NADP Briefing session at Dharmapuri Collectorate


Action Plan - Agriculture


DAP – Components
. Basic Profile
. On going schemes
. Action Plan


Dharmapuri
Baseline Information
Milch Animals
1.86 Lakhs
Animal
Percentage
Lactation
Crossbred
47.60
Indigenous
23.70
Buffalo
28.70
1416
Breedable population – Cattle : 140567,
55867