

# CHAPTER - I

## AGRICULTURE & ALLIED SERVICES

### 1.1 CROP HUSBANDRY

The 11<sup>th</sup> Plan Projected Outlay under Crop Husbandry including SF/MF is Rs. 10,000.00 lakhs. The Agreed Outlay for 2009-10 was **Rs. 2880.00 lakhs** including **Rs.1000.00 lakhs of SPA for Integrated Infrastructure for Agriculture and Allied Sector** and the actual expenditure during 2009-10 was **Rs.2779.97lakhs**. The approved Outlay for the year 2010-11 is **Rs. 2700.00 lakhs** which is expected to be fully utilized. The Proposed Annual Plan 2011-12 is **Rs., 3500.00 lakhs** under Crop Husbandry inclusive of **Rs.210.00 lakhs** for ASF/MF. Pending finalization of the Annual Plan 2011-12 , a tentative budget allocation of Rs 3500.00 lakhs inclusive of Rs 210.00 lakhs for ASF/MF has been provided.

#### 1.1.2 BACKGROUND:

Meghalaya's economy is basically agrarian in which about 70 percent of the population depend for their livelihood on agriculture. However, the contribution of this sector to the State's economy is only 22 percent of NSDP. This would reflect that most of the people in this sector are living more or less at subsistence level and still a large percentage of them are living below the poverty line. As such, proper management for development of the Crop Husbandry sector is vital for the healthy growth of this primary sector. Enhancement of food grain production in the hill State of Meghalaya is constrained by the topography in which only about 12 percent of its geographical area is suitable for cultivation of crops for food grains production. However, improvement of production to the extent possible by way of more coverage, improvement of irrigation facilities, use of HYV seeds, application of fertilizer and pest control are being taken up.

#### 1.1.3. OBJECTIVES:

The goal for the 11<sup>th</sup> Plan was laid out to usher in a paradigm shift from the implementation of omnibus schemes widely dispersed all over the seven districts with dissipating effect on scarce resources to a more focused approach based on cluster and backed by an integrated package of practices. The strategy would be to consolidate traditional strengths and past gains and at the same time to capitalize on emerging opportunities. This would continue to be focused during the current year.

#### 1.1.4. CLUSTER APPROACH:

A restructuring of policies and institutions would inevitably accompany the radical transformation. The cultivated area of the State would be divided into crop-wise clusters. Each cluster would be defined as a Crop Development & Marketing Unit (CDMU) stressing not only the supply facet, but, more importantly, the demand side of the cluster and would ideally be under the charge of a Departmental Officer.

### **1.1.5 FOCUS CROPS:**

Instead of cultivation of a plethora of crops in small quantities, concentration would be on a few Focus Crops to keep their avenues of income intact. As laid out for the 11<sup>th</sup> Plan, the focus for the current year would continue to be on some of the traditional crops namely rice, kharif maize, soyabean and mustard which have been doing consistently well and to expand the area under promising crops, like rabi maize, soyabean and boro (spring) paddy.

### **1.1.6 FOOD GRAINS:**

With the aim to achieve the target of 3.79 lakhs MT food grains by the end of the 11<sup>th</sup> Plan period, concerted efforts of increasing productivity of local varieties, shift toward HYV and Hybrid paddy, double cropping with spring paddy and maize, land reclamation supplemented by increased cropped area. In order to boost rice production, effort will be taken to cover 20,000 ha during the year in 200 clusters of 100 ha each. This would be achieved through land reclamation to add fresh areas under paddy and increasing crop intensity with Bora (spring) paddy in the existing rice area.

### **1.1.7 SEED CERTIFICATION :**

The availability of quality seeds is crucial if the productivity is to be raised and hence Seed Certification is another area to be undertaken within the plan period so that farmers are supplied with certified seeds for productive cultivation. While the Department is grateful to the Assam Seed Certifying Agency (ASCA), for its help in certifying seeds particularly rice and maize, this is not always a convenient arrangement, for obvious reasons. Hence, one of the targets is the establishment of the Meghalaya Seed Certifying Agency (MeSCA) to cater to this vital requirement.

### **1.1.8 ORGANIC FARMING :**

The consumption of chemical fertilizer in the State is very low being only 18 Kgs/Ha as compared to the national average of above 94 Kgs/Ha. The total consumption of fertilizer in the State is concentrated mainly in potato and vegetables crops and to some extent paddy crop in mid and low altitude areas. There are still villages in the State where chemical fertilizer are still unknown and that crops are being grown organically with organic manure as the only source of plant nutrient. Keeping this in mind, there is a very good scope of encouraging farmers to continue with this farming system in order to take advantage of the increasing demand and higher prices of organically grown crops. To give more impetus to organic farming in the State the Department purposes to organize mass awareness programmes, setting up of a model organic farm of about 2 hectares of land, to promote organic farming through use of organic manure and key agriculture and horticulture crops identified for organic production/ conversion are local rice, cashew nut, pineapple, ginger, turmeric etc.

### **1.1.9. CAPACITY BUILDING :**

Modern capacity building entities are key hubs for skill development both for farmers and Department officials. Systematic training programme are needed to be conducted

for both officials and farmers in various subject areas especially in new technologies like Hi Tech Agriculture, Green House Management, Soil-less horticulture, Risk Management, Integrated Marketing and Value Chain Creation, Organic Certification, Phytosanitary protocols, WTO concepts, Modern Extension Reforms, Application of Information Technology, Food Quality Standards etc.

#### **1.1.10 AGRICULTURAL MECHANIZATION :**

The present available power for agricultural mechanization in the State is only 0.0345 hp per hectare against the all India level of 1 hp per hectare. Priority will therefore be given to the promotion of agricultural mechanization in order to boost agricultural production and timely sowing and planting. The Department will continue to implement the Central Schemes of farmers Agro-service Centres, Agricultural machinery, Training & Evaluation Centres and popularization of Improved Agricultural Equipments alongside the State Plan Schemes of Mechanical Engineering Workshop and supply of power tillers, Power threshers, power reapers, etc. with the level of subsidy to be raised.

#### **1.1.11 WATERSHED DEVELOPMENT:**

The watersheds are integral to sustainable agriculture development and livelihood improvement due to multi dimensional activities which focuses on the specific needs of the watershed areas and their agro-ecological situation where integrated farming approach is practiced along with multiple vocational support activities like carpentry, sewing, handicraft, bee keeping, food processing etc.

Implementation with hundred percent funding by the Govt. of India through the Centrally Sponsored Schemes of Macro Management of Agriculture on the basis of the work-plan proposed by the Department annually with a projected target for each plan period.

#### **1.1.12 SPECIAL PROGRAMME FOR ASSISTANCE TO SMALL AND MARGINAL FARMERS**

The aim and objective of the programme is for providing minikits of improved seeds & other facilities in the form of small irrigation canals to small and marginal farmers for increasing agricultural production to boost their economy. In Meghalaya this programme is implemented by the Community and Rural Development Department. The projected outlay for the 11<sup>th</sup> Plan (2007-12) is **Rs.560.00 lakhs** under ASF/MF. An outlay of **Rs. 210.00 Lakhs** has been proposed for Annual Plan 2011-12. Pending finalization of the Annual Plan 2011-12, a tentative budget allocation of Rs 210.00 lakhs has been provided.

The broad schematic outlays for the 11<sup>th</sup> Plan and the Annual Plan 2011- 12 under Crop Husbandry inclusive of ASF/MF is indicated in the table below:-

Sl. No	Name of Schemes	Eleventh Plan 2007-12 Projected Outlay at 2006-07	Annual Plan 2009-10		Annual Plan 2010-11		Annual Plan 2011-12 Proposed Outlay	Tentative Budget Provision
			Agreed Outlay	Actual Expenditure	Agreed Outlay	Anticipated Expenditure		
1	2	3	4	5	6	7	8	9
1	Direction and Admn	750.00	170.50	125.74	175.00	175.00	260.00	298.00
2	Seeds	2000.00	45.20	31.71	82.00	82.00	100.00	100.00

3	Manure & Fertilizers	1500.00	29.00	25.62	47.00	47.00	60.00	55.00
4	Plant Protection	400.00	14.00	13.87	20.00	20.00	25.00	30.00
5	Commercial Crops	1000.00	719.30	501.69	1363.00	1363.00	1755.00	1760.00
6	Extension And Training	1000.00	106.00	65.19	160.00	160.00	285.00	215.00
7	Agril Eco &Stats	75.00	21.00	22.45	33.00	33.00	40.00	41.00
8	Agril Engineering	1200.00	180.00	123.59	210.00	210.00	250.00	245.00
9	Assistance to farming Co operatives	100.00	19.00	14.00	35.00	35.00	45.00	61.00
10	Assistance to Small &Marginal Farmers	560.00	120.00	176.40	210.00	210.00	210.00	210.00
11	Other Expenditure	600.00	150.00	373.94	195.00	195.00	260.00	230.00
12	2216-Housing Resi Bldg	300.00	70.00	69.99	55.00	55.00	70.00	55.00
13	4216- Capital Outlay	400.00	90.00	89.83	40.00	40.00	50.00	100.00
14	4401- CO on Crop Husbandry	115.00	146.00	145.95	75.00	75.00	90.00	100.00
15	One Time ACA/SPA for Integrated Infrastructure for Agri &Allied Sectors	-	1000.00	1000.00				
	<b>TOTAL</b>	<b>10000.00</b>	<b>2880.00</b>	<b>2779.97</b>	<b>2700.00</b>	<b>2700.00</b>	<b>3500.00</b>	<b>3500.00</b>

### 1.1.13 AGRICULTURAL RESEARCH AND EDUCATION

The 11<sup>th</sup> Plan projected Outlay is **Rs.500.00 lakhs**. The approved Outlay for 2009-10 was **Rs. 70.00 lakhs** and the actual expenditure was **Rs. 59.81 lakhs** . The approved Outlay for 2010-11 is **Rs. 70.00 lakhs** which is expected to be fully utilized. Pending finalization of the Annual Plan 2011-12 , a tentative budget allocation of **Rs. 100.00 lakhs** has been provided .

Rs in lakhs

Sl. No	Name of Schemes	11 <sup>th</sup> Plan 2007-12 projected outlay 2006-07	Annual Plan 2009-10		Annual Plan 2010-11		Tentative Budget Provision
			Agreed Outlay	Actual Expenditure	Agreed Outlay	Anticipated expenditure	
1	Agril Research & Education	500.00	70.00	59.81	70.00	70.00	100.00
	<b>Total</b>	<b>500.00</b>	<b>70.00</b>	<b>59.81</b>	<b>70.00</b>	<b>70.00</b>	<b>100.00</b>

### 1.1.14 INVESTMENT IN FINANCIAL INSTITUTIONS

The 11<sup>th</sup> Plan projected Outlay is **Rs.100.00 lakhs**. The approved Outlay for 2009-10 was Rs. **15.00 lakhs** and the actual expenditure was **Rs. 15.00 lakhs** . The approved Outlay for 2010-11 is **Rs. 15.00 lakhs** which is expected to be fully utilized. Pending finalization of the Annual Plan for 2011-12, a tentative budget allocation of **Rs. 25.00 lakhs** has been provided.

### 1.1.15 RASHTRIYA KRISHI VIKAS YOJANA (RKVY) :

The National Development Council resolved to introduce an additional central assistance scheme called RKVY that incentivizes States to increase public investment in agricultural and allied sectors. The key end goal is to achieve at least 4.1 percent growth in Agriculture by the end of the 11<sup>th</sup> Five Year Plan. The objectives of RKVY are :

- (i) to incentivize the States to increase their investment in Agriculture and allied sectors,
- (ii) to provide flexibility and autonomy to the States in planning and executing programmes for Agriculture.
- (iii) To ensure the preparation of Agriculture plans for the Districts and the States,
- (iv) To address the agriculture and allied sectors in an integrated manner.

The distribution of funds under RKVY are in two streams viz Stream 1 and Stream 2. Under stream 1 at least 75% of the allocated amount will be distributed to the States and approved by the State Level Sanctioning Committee headed by the Chief Secretary. Under Stream 2 existing schemes that require strengthening can be covered under this stream for such schemes that have a resource gap. Not more than 25% allocated funds can be used for this stream and the sanctioned procedure will be as in the case of other plan schemes. The Meghalaya Small Farmers Agri Bussiness Consortium (MgSFAC) has been notified as the nodal agency for RKVY funds.

During 2010-11, the Government of India has released the entire amount of **Rs. 4612.00 lakhs** ACA which is the approved Work Plan for Meghalaya.

### PROJECTED OUTLAY FOR THE 11<sup>TH</sup> FIVE YEAR PLAN 2007-12 AND THE ANNUAL PLAN 2011-12 UNDER RASHTRIYA KRISHI VIKAS YOJANA.

Sl. No	Name of Schemes	11 <sup>th</sup> Plan 2007-12 projected outlay of 2006-07	Annual Plan 2008-09		Annual Plan 2009-10		Annual Plan 2010-11		Annual Proposed Outlay 2011-12	Tentative Budget Provision
			Agreed Outlay	Actual Expenditure	Agreed Outlay	Actual Expenditure	Agreed Outlay	Actual Expenditure		
1	2	3	4	5	6	7	8	9	10	11
	RKVY	0.00	1353.00	677.00	2468.00	2468.00	4249.00	4249.00	4249.00	.4249.00
	<b>Total</b>	<b>0.00</b>	<b>1353.00</b>	<b>677.00</b>	<b>2468.00</b>	<b>2468.00</b>	<b>4249.00</b>	<b>4249.00</b>	<b>4249.00</b>	<b>4249.00</b>

## 1.2 HORTICULTURE

### 1.2.1 11<sup>th</sup> PLAN & ANNUAL PLAN 2011-12 PROJECTIONS :

The Eleventh Plan Projected Outlay for Horticulture Development is **Rs 20,000.00 lakhs**. The Approved Outlay for the year 2009-10 was **Rs 3100.00 lakhs** against which Actual Expenditure was **Rs 2038.87 lakhs**. The Agreed Outlay for the year 2010-11 is **Rs 2050.00 lakhs** inclusive of **Rs 450.00 lakhs** for Post Harvest Marketing which is expected to be utilized in full. The Proposed Outlay for the Annual Plan 2011-12 is **Rs.2700.00 lakhs** inclusive of **Rs 950.00 lakhs** of TFC Award for infrastructure in Horticulture. Pending finalization of the Annual Plan 2011-12, a tentative budget allocation of **Rs 2700.00 lakhs** inclusive of **Rs 950.00 lakhs** for infrastructure in Horticulture has been provided.

#### BACKGROUND :

Since time immemorial, horticulture has been known in the hills of Meghalaya as an important source of supplementary income and employment to the rural people. The actual achievement of horticulture produce during the Tenth Plan period is **234.33 thousand tones**. The anticipated horticultural produce during 2010-11 is of the level of **288.63 thousand tones**. Having realized this potential, the State Government assigned priority to horticulture during the Eleventh Plan with a view to generating income and employment, removing poverty and thereby improving the economy and well being of the people of the State.

The State's latest foray into high value low volume crops namely, Strawberry and commercial floriculture like Rose, Lilium, Anthurium, Carnation, Bird of paradise is very promising. High value vegetables like Broccoli and Capsicum are also being expanded through the Technology Mission Scheme.

### 1.2.2 THRUST AREA :

- **Fruit Sector:** - Khasi Mandarin – rejuvenation and area expansion; area expansion and processing of pineapple.
- **Temperate Fruit sector:** - plum, peaches, pears, kiwi etc.
- **Indigenous Fruit sector:** - popularisation and commercialization of indigenous crops like sohiong, sohpie etc.
- **Vegetable Sector:** - production of off-season vegetables, potatoes and seed production.
- Production of low-volume and high value crops like strawberry, capsicum, broccoli etc. and flowers like roses, anthurium, carnation, bird of paradise etc.
- Cultivation of cash crops like Black pepper, cashewnut
- Tapping of ground water potential
- Promotion of farm mechanization with small power tillers adaptable to the topography of the State and popularization of new machineries to reduce the cost of cultivation on manual labour and consequently to enhance timely sowing of crops.
- Integrated Pest management with emphasis on training of Officers.
- Stress on Organic farming for spices like ginger & turmeric, fruits and vegetables.
- Encouraging protected cultivation by using plastic and shade nets in horticulture.
- Research and Development.

- Post-Harvest Management is being taken up intensively and extensively during the Eleventh Plan. The Department sponsor educated unemployed youth of the State for short term and long term training in fruit processing, fruit preservation and marketing which have vast potential in employment and income generation.

#### 1.2.4 CONSTRAINTS:

Low to very low productivity of crops;

- Lack of assured irrigation facility;
- Poor agro-mechanization process;
- Unscientific land use;
- Poor economic condition of the farmers, remoteness of the area and backwardness;
- Inadequate extension service in dissemination of improved production technology to the growers due to lack of adequate manpower at the field level;

#### 1.2.5 SUGGESTIONS :

- Development of micro- water structures including Hydrams and drip irrigation
- Area expansion in cluster basis under tea cultivation through small tea growers
- Commercialization of floriculture
- Developing appropriate packaging and value addition for some Horticultural produce in the State
- Cluster approach : on major horticultural crops in the State
- Creation of Farm handling units

1.2.6 - The broad break-up of the Projected Outlay for the 11<sup>th</sup> Plan and Annual Plans 2010-11 and 2011-12 is indicated below:

(Rupees in lakhs)

SI No	Name of schemes/projects	Eleventh Plan 2007-12 Projected Outlay at 2006-07 prices	Annual Plan 2009-10		Annual Plan 2010-11		Annual Plan 2011-12 Proposed Outlay	Tentative Budget Provision
			Agreed Outlay	Actual Expenditure	Agreed Outlay	Anticipated Expenditure		
1	2	3	4	5	6	7	8	9
	<b>Horticulture</b>							
1	Direction & Administration	620.00	70.00	104.36	69.00	69.00	154.00	154.00
2	Manure and Fertilizer	5951.00	60.00	37.71	38.00	38.00	40.00	40.00
3	Plant Protection	330.00	50.00	49.92	50.00	50.00	60.00	60.00
4	Commercial Crops	2210.00	403.00	419.47	462.87	462.87	495.75	495.75
5	Extension and training	410.00	76.00	80.00	30.00	30.00	40.00	40.00
6	Agri Economics & Statistics	-	55.00	-	4.23	4.23	10.00	10.00
7	Hort & vegetable Crops	10,479.00	2066.00	1147.41	1195.90	1195.90	1700.25	1700.25
8	<b>Other Expenditure</b>							
	i) Land Acquisition	-	-	200.00	200.00	200.00		
	ii) Post Harvest Management	-	320.00					
	iii) 4401 Capital Outlay on C/H						200.00	200.00
90	One Time ACA/SPA for Integrated Infrastructure for Agri & allied Sectors		-				-	-
	<b>Total Horticulture</b>	<b>20,000.00</b>	<b>3100.00</b>	<b>2038.87</b>	<b>2050.00</b>	<b>2050.00</b>	<b>2700.00</b>	<b>2700.00</b>

### 1.2.7 AGRICULTURAL MARKETING

Agricultural Marketing plays a vital role in the development of rural economy. A properly organized marketing ensures remunerative returns to the farmers for their produce and in turn help to augment production. Meghalaya has immense scope for development of Horticulture through diversification and intensification of production plans.

The Projected Outlay for the 11<sup>th</sup> Plan is **Rs 1250.00 lakhs**. The Agreed Outlay for 2009-10 was **Rs100.00 lakhs** and the Actual Expenditure was **Rs 144.70 lakhs**. The Agreed Outlay during 2010-11 is **Rs300.00 lakhs** and the anticipated expenditure is **Rs 200.00 lakhs** which is expected to be fully utilized. Pending finalization of the Annual Plan for 2011-12, a tentative budget allocation of **Rs 700.00 lakhs** has been provided.

(Rupees in lakhs)

Sl No	Name of schemes/projects	Eleventh Plan 2007-12 Projected Outlay at 2006-07	Annual Plan 2008-09		Annual Plan 2009-10		Tentative Budget Provision
			Agreed Outlay	Actual Expenditure	Agreed Outlay	Anticipated Expenditure	
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
1	Agricultural Marketing	1250.00	100.00	144.70	300.00	200.00	700.00
	<b>Total</b>	<b>1250.00</b>	<b>300.00</b>	<b>144.70</b>	<b>300.00</b>	<b>200.00</b>	<b>700.00</b>

### 1.3. SOIL AND WATER CONSERVATION

**1.3.1.** The Eleventh Plan (2007-2012) projected outlay for Soil & Water Conservation sector is Rs.18922.00 lakhs. The actual expenditure for the period 2007-08 to 2009-10 was Rs. 7186.22 lakhs. The approved outlay for the Annual Plan 2010-11 is Rs.8600.00 lakhs which includes Rs.5500.00lakhs of A.I.B.P, Rs.500.00 lakhs of SCA specially earmarked for Control of Shifting Cultivation, Rs.600.00 lakhs of NABARD Loan and SPA of Rs.1600.00 lakhs for improvement of Ecology & Environment of Cherrapunjee. The anticipated expenditure for the year 2010-11 is Rs. 9100.00 lakhs. The proposed outlay for the Annual Plan 2011-12 is Rs.10000.00 lakhs .

#### **1.3.2. Schemes/Projects for the Annual 2011-12 :-**

The main programmes to be taken up during 2011-12 include

- **Watershed Development Project in Shifting Cultivation Areas (WDPSCA)** under 100% SCA.
- **Soil Conservation Scheme in general areas** where activities taken up under this programme are those which are not identified within a major package programme or watershed management in an individual farmer's field or in community land.
- **Jhum Control Scheme** is being continued in a smaller way and
- **Watershed/ Water Resources Management Programme** which aims at integrating various soil and water conservation measures to be taken up in selected micro watersheds which include land development, drainage line treatment, water

harvesting water conservation and distribution, afforestation, agro-forestry as well as horticultural plantation & crop development and construction of check dams.

- Financial assistance to the **Meghalaya Commercial Crop Development Board (MCCDB)**.
- **NABARD Loan**- 10 (ten) projects were taken up under RIDF-XIV @ Rs. 1718.31 lakhs 9 (nine) projects @ Rs. 3060.98 lakhs under RIDF-XV & 7(seven) projects @ Rs. 3219.10 lakhs under RIDF-XVI.
- **Accelerated Irrigation Benefit Programme (AIBP)** will be implemented in all the 7(seven) Districts. 23(twenty three) projects were sanctioned during 2010-11 and 20(twenty) projects will be taken up during 2011-12.
- **Cherrapunjee Ecological Project** - An amount of Rs. 1600.00 lakhs under SPA will be utilized during 2010-11 for restoration of degraded land under the Sohra Plateau and Rs. 1200.00 lakhs is proposed for the Annual Plan 2011-12.
- **Integrated Watershed Management Programme** with 90:10 sharing pattern is implemented w.e.f 2009-10 and will be continued during 2011-12.

**1.3.3.** The scheme-wise break-up of the projected outlay for the 11<sup>th</sup> Plan period, the approved outlay for 2010-11 and the proposed outlay for the Annual Plan 2011-12 are as indicated in the table below :-

Name of scheme	Rs. in lakhs				
	11 <sup>th</sup> Plan 2007-2012) Projected outlay	Actual expenditure 2009-10	Appd outlay 2010-11	Anti. expenditure 2010-11	Proposed outlay 2011-2012
Direction & Administration	1446.00	446.36	155.45	550.00	478.00
Soil Survey & Testing	34.00	7.16	2.09	5.00	4.00
Soil Conservation Scheme	3209.35	456.92	56.46	98.00	42.00
Extension & Training	270.00	80.19	40.00	80.00	48.00
<b>Other Expenditure:-</b>	15.00	0.00	-	-	-
i)Const. of approach road.					
ii)Const/maintenance of non-resi. Bldg.	100.00	16.87	2.00	7.00	5.00
iii) Jhum Control Scheme.	600.00	37.70	15.00	15.50	13.00
iv)Watershed Management	600.00	31.33	8.00	12.50	9.00
v) Meghalaya Com. Crops Dev. Board.	200.00	59.54	30.00	30.00	25.00
vi) SCA on Watershed Dev. Project in Shifting Cultivation Areas (WDPSCA)	4304.00	550.00	500.00	500.00	550.00
vii) NABARD Loan	1022.00	1000.00	600.00	600.00	1000.00
viii) I.W.D.P.	*	0.00	*	*	*
viii)Jatropha cultivation.	961.65		-	-	-
ix)Improved Shifting Cultivation.	1000.00	164.65	30.00	50.00	30.00
x) Water Harvesting	5000.00	**	**	**	**
xi) Accelerated Irrigation Benefit Scheme	-	500.00	5500.00	5500.00	6500.00
xii)Improvement of environment of Cherrapunjee and surrounding areas.	-	0.00	1600.00	1600.00	1200.00
xiii) Repair, renovation & restoration of water bodies with domestic support.	-	-	-	-	50.00
Integrated Watershed Management Programme (State Share)		0.00	60.00	50.00	40.00
Agricultural Research & Education	10.00	2.20	1.00	2.00	2.00
Housing -01-Govt.residential Bldg	150.00	0.00	-	-	4.00
<b>Grand Total:</b>	<b>18922.00</b>	<b>3352.92</b>	<b>8600.00</b>	<b>9100.00</b>	<b>10000.00</b>

\* IWDP may be seen in R&D sector vide para 2.1.2.

## 1.4. ANIMAL HUSBANDRY

**1.4.1.** Animal Husbandry & Veterinary sector plays an important role for increasing production of animal origin food like milk, meat and eggs. The target fixed for production of meat & egg during the Eleventh Plan Period is 42,000 tonnes and 110 million Nos and the proposed target to be achieved during 2010- 11 is fixed at 40,800 tonnes and 106 million Nos. The projected outlay for the Eleventh Plan for this Sector is `10500.00 lakhs. The actual expenditure during 2009-10 is `1326.97 lakhs. The approved outlay for 2010-11 is `1650.00 lakhs (`350.00 lakhs NABARD Loan) and the anticipated expenditure is `1850.00 lakhs (`350.00 lakhs NABARD Loan)

**1.4.2.** An amount of `2700.00 lakhs (including `900.00 lakhs NABARD loan) is proposed for the Annual Plan 2011-12.

**1.4.3.** The major programmes for the Annual Plan 2011-12 are summarised below:-

**1. Veterinary Services & Animal Health:** During 2011-12, 7(seven) new dispensaries are proposed to be established with financial assistance through NABARD loan. At present there are 90 Nos. Veterinary Dispensaries in the State and the requirement of Veterinary Institutions is 178 Nos. based on projected Livestock Census. It is proposed to provide sufficient quantity of medicines, vaccines and to provide the new dispensaries being set up in the State with equipments, appliances, etc. Veterinary Hospitals will also be further strengthened & equipped with modern machineries & equipments for diagnosis & treatment of various diseases in the Districts.

**2. Cattle Development :-**The existing Cattle Farms in the State need to be strengthened in order to enable to supply improved quality stock (breeding animal) to the farmers for increasing of milk production in the State. To ensure supply of good quality breeding stock of high quality, it is proposed to replace some numbers of old stocks of milch cows in order to increase milk production.

**3. Poultry Development :-** The schemes for maintenance of existing Poultry Breeding and Production Farms will continue and the existing subsidy schemes for rearing of poultry for meat and egg production for assisting the educated un-employed youth and general farmers as well as Rural Cluster Approach on Poultry development in selected villages to increase meat & eggs production is proposed to continue during 2011-12. Further, new Poultry Breeding Farm in East Khasi Hills District funded under R.K.V.Y. is expected to start functioning during 2011.

**4. Piggery Development:** Pig Breeding Farms will be strengthened to meet the demand of breeding stock. The existing pig farm at Baghmara is proposed to be strengthened/up-graded from 20 sows to 100 sows unit and Regional Pig Breeding Farm, Kyrdemkulai from 100 sows to 150 sows unit during 2011-12. New Pig Breeding Farm with 100 sows unit had been set up at Nongkasen, West Khasi Hills District and 2(two) new Pig Breeding Farms funded under R.K.V.Y with 100 sows unit each have been set up at Nongpiur, East Khasi Hills District and at Gindo, West Garo Hills District and they are expected to start functioning by 2011. In order to encourage and involve people in pig production, the existing subsidy schemes for rearing of pigs will continue to assist to Educated Un-employed Youth and General Farmers including Rural Cluster Approach on Piggery Development in selected

villages with much larger outlay to cover more beneficiaries. To ensure continuity and make the above schemes sustainable, there will be linkage with subsidy scheme for providing piggery feeds to farmers under Feed and Fodder Development.

**5. Feed and Fodder Development:** Two existing feed mill located at Umsning and Tura will be improved to enhance their utilization capacity. Subsidy for Poultry / Piggery feed to the farmers will continue. The existing fodder farms in the State have been able to cater to requirement of fodder for Government Cattle Farms. The production could be augmented further with provision of Tractors and Power Tiller etc. Provision has therefore been made to provide these items during 2011–12.

**1.4.4. Schemes under NABARD Loan :** During 2010-11, 2 (two) Schemes have been submitted for financial assistance under NABARD Loan viz, Setting up of Modern Abattoir at Mawiong, Shillong @ `2288.83 lakhs and Construction of 7(seven) Veterinary Dispensaries @ `408.91. The implementation, if sanction by NABARD during the current year will spill over to 2011-12.

**1.4.5. The broad break - up of the projected Outlay for the 11<sup>th</sup> Plan (2007-12), Annual Plan 2010-11 and the proposed Outlay for 2011-2012 in respect of Animal Husbandry and Veterinary Sector is indicated in the Table below:-**

(`Lakhs)

Sl. No.	Name of programme / scheme	11 <sup>th</sup> Plan 2007- 12	Actual Expdr. 2007-08	Actual Expdr. 2008-09	Actual Expdr. 2009-10	Approved Outlay 2010 -11	Anticipated Expdr. 2010-11	Annual Plan 2011-12 Proposed Outlay
1.	Direction and Administration	520.00	131.21	151.30	104.51	119.65	168.93	185.82
2.	Vety. Services & Animal Health	2135.00	315.13	401.33	497.42.	516.56	606.62	667.28
3.	Cattle and Buffalo Development	940.00	75.25	78.36	83.84	99.06	101.30	111.43
4.	Poultry Development	1160.00	131.07	153.93	116.20	113.39	115.12	207.76
5.	Sheep and Goat Development	80.00	12.23	13.44	14.97	17.70	17.30	22.33
6.	Piggery Development	1100.00	123.00	152.55	122.02	117.68	128.27	206.70
7.	Fodder & Feed Development	395.00	75.57	49.74	40.61	35.62	39.08	42.98
8.	Administrative Investigation & Statistics	150.00	6.55	8.36	12.72	16.00	18.10	24.91
9.	Research	80.00	10.75	11.70	14.13	15.51	15.51	17.06
10.	Education	309.00	42.72	47.06	64.15	61.48	71.42	77.56
11.	Infrastructure Development	3631.00	165.04	564.50	256.40	187.35	218.35	236.17
12.	NABARD Loan	-	-	-	-	350.00	350.00	900.00
13.	RKVY	-	-	578.00	-			
	<b>Total</b>	<b>10500.00</b>	<b>1088.52</b>	<b>2210.27</b>	<b>1326.97</b>	<b>1650.00</b>	<b>1850.00</b>	<b>2700.00</b>

## 1.5. DAIRY DEVELOPMENT

**1.5.1.** The projected outlay for Dairy Development Sector for the 11<sup>th</sup> Plan is Rs.2200.00 lakhs, out of which an amount of `175.37 lakhs, `197.02 lakhs and `526.64 lakhs were utilised during 2007-08, 2008-09 and 2009-10 respectively. The approved outlay for 2010-11 is `550.00 lakhs and the anticipated expenditure is `400.00lakhs.The outlay proposed for 2011-2012 is `750.00 lakhs.

**1.5.2.** The target for production of milk is fixed at 95.00 thousand tonnes to be achieved up to the end of the 11<sup>th</sup> Plan and the proposed target to be achieved during 2011-12 is fixed at 82.60 thousand tonnes.The major programmes under Dairy Sector proposed to be taken up during 2011-2012 are summarized below.

**1.5.3.** There are 3(three) Dairy Plants for pasteurization of milk having capacity of 10,000/8,000 litres, 2 (two) Chilling Plants and one Creamery & Ghee making centre in the State and maintenance of these set up will continue during 2011-12. Policy in respect of procurement & marketing of milk is now being handled by the Registered District Societies in Shillong, Tura and Jowai. It is expected that the utilization capacity of the Plants will be maximized up to its full capacity for distribution of good quality pasteurized milk to the consumers.

**1.5.4.** In order to encourage & involve people for increasing milk production, the subsidy scheme for educated unemployed youth & general farmers will continue during 2011-2012 with an increasing outlay to cover more beneficiaries. Milk Collection Centres will be set up by providing Milk Bulk Cooler and infrastructure to be managed by a group of Dairy Co-operative Societies as an assistance to store overnight milk and to encourage more collection of milk for dairy plants. Further, assistance for replacement of old cows and construction of silo pit for silage making to members of Dairy Co-operative Societies will continue. In order to fill up the vacancies for the post of dairy technologists, eligible student have been selected to undergo studies in dairy technology in Colleges outside the State

**1.5.5.** The broad break-up of the projected outlay for the 11<sup>th</sup> Plan (2007-12), Annual Plan 2010-11 and the proposed outlay for 2011-2012 are as indicated below:-

(` Lakhs)

Sl. No.	Name of programme / scheme	11 <sup>th</sup> Plan 2007- 12	Actual Expdr. 2007-08	Actual Expdr. 2008-09	Actual Expdr. 2009-10	Approved Outlay 2010-11	Anticipated Expdr. 2010 -2011	Annual Plan 2011-12 Proposed Outlay
1.	Direction and Administration	30.00	7.27	18.20	19.69	33.62	33.62	51.29
2.	Employment Generation	200.00	10.57	29.61	29.61	31.75	31.68	74.00
3.	Cattle-cum Dairy Development	1270.00	109.53	101.02	290.12	351.63	213.99	471.74
4.	Construction & improvement of Residential and Non-Residential	700.00	48.00	48.19	187.22	133.00	120.71	152.97

	Buildings, etc.							
	<b>Total</b>	<b>2200.00</b>	<b>175.37</b>	<b>197.02</b>	<b>526.64</b>	<b>550.00</b>	<b>400.00</b>	<b>750.00</b>

## 1.6. FISHERIES.

**1.6.1** The Eleventh Plan (2007-2012) Projected Outlay of Fisheries sector is Rs.4500.00 lakhs. The actual expenditure incurred during 2009-10 was Rs.664.31 lakhs. The approved outlay for 2010-11 is Rs.300.00 lakhs against which is expected to be utilized in full. The anticipated expenditure for the period 2007-08 to 2010-11 is Rs.1877.96 lakhs. **The proposed outlay for the Annual Plan 2011-2012 is Rs. 800.00 lakhs.**

### **1.6.2. Achievements during the Annual Plan 2009-10 & 2010-11:-**

During the Annual Plan 2009-10, the Department has achieved about 1.15 million of fish seed production. The production of fish during the year was 4.33 thousand tonnes. The Department has also taken up scheme to reclaim and renovate the existing ponds /tanks by providing subsidy to some selected beneficiaries with a view to augment fish production from private sector. Training to fish farmers was also taken up on the modern concept of fish culture for improvement of fish production.

**1.6.3** The target during the Eleventh Plan Period is to cover 70.00 hectare water areas with an anticipated fish production of 5.75 thousand tonnes and 3.00 million of fish seeds is expected to be produced besides awareness programme to be organized in collaboration with the NGO's/Village Headmen/ sardars etc. to help prevent indiscriminate killing of fishes in streams. The anticipated achievement during the year 2010-11 in respect of fish production is 6.00 thousand tonnes and the target for fish seed production is 3.00 million numbers.

**1.6.4.** The following schemes series will be continued during the Annual Plan 2011-12 are as follows:-

- Fishseed Production and Demonstration Centre.
- Development of Reservoirs and Lakes.
- Conservation and Legislation for protection of fisheries.
- Community Fishery Development Project.
- Marketing and Transport of fish and fishseeds.
- Extension & Training, Research-cum -Fishseed Production Centre.
- One Thousand Ponds Scheme- Aquaculture Development.

### **New Schemes:**

The department also proposes to implement the following new schemes for enhancing fish production

- Establishment of fish seed production Centre for private pisciculturist.
- Development of Marshy/ Swampy areas/Bheel.

**Statement indicating the actual expenditure during 2009-10, the approved outlay and the anticipated expenditure for the year 2010-11 as well as the proposed outlay for the Annual Plan 2011-12 are as follows:**

**( Rs. lakhs)**

Sl. no.	Name of Schemes	Projected 11 <sup>th</sup> Plan outlay 2007 -2012	Actual Expenditure during 2009-10	Approved outlay 2010 -11	Anti. expd. 2010-11	Proposed outlay 2011-12
1	Direction & Administration.	370.00	50.00	78.86	78.86	105.00
2	Inland Fisheries:-	100.00	59.50	79.16	79.16	75.00
i)	Fishseed Production & Demonstration Centre					
ii)	Development of reservoirs	100.00	48.00	35.00	35.00	35.00
iii)	Conservation & legislation for protection of fishes.	100.00	20.00	3.59	3.59	2.00
iv)	Community Fishery Development Project	100.00	39.91	12.60	12.60	30.00
3	Marketing & Transport of Fish/ Fishseeds	100.00	19.40	10.00	10.00	12.00
4	Extension & Training	75.00	17.20	8.78	8.78	12.00
5	Research & Education- Fishseed Production Demonstration - cum Research Centre	25.00	2.10	22.00	22.00	2.00
6	Constn/ Improvement of Depttl- resi. Bldgs	50.00	-	9.33	9.33	40.00
7	Constn/ Improvement of Depttl Non- resi. Bldg	50.00	8.95	20.00	20.00	100.00
8	Aquaculture for Development of One- Thousand Ponds	2700.00	375.00	-	-	330.00
9	Fish Farmer Dev. Agency(state share)	160.00	-	-	-	6.00
10	National scheme for welfare of fishermen (state share)	200.00	-	5.88	5.88	6.00
11	Culture & development of mahaseer fisheries	170.00	12.25	12.00	12.00	-
12	Culture & breeding of ornamental fishes (state share)	200.00	12.00	2.80	2.80	-
13	Establishment of fish seed production centre for private pisciculturist	-	-	-	-	30.00
14	Development of Marshy/ Swampy areas/Bheel		-	-	-	15.00
	<b>Total</b>	<b>4500.00</b>	<b>644.31</b>	<b>300.00</b>	<b>300.00</b>	<b>800.00</b>

## **1.7. FOOD, STORAGE & WAREHOUSING**

**1.7.1.** The Eleventh Plan (2007-2012) projected outlay is Rs.450.00 lakhs. The actual expenditure incurred during 2009-10 was Rs.15.00 lakhs. The approved outlay during 2010-11-10 is Rs.120.00 lakhs and the anticipated expenditure is Rs.20.00 lakhs. The anticipated expenditure for the period 2007-08 till 2010-11 is Rs.70.00 lakhs. **The tentative outlay for the Annual Plan 2011-12 is Rs. 170.00 lakhs including Rs.50.00 lakhs of TFC award for construction of warehouses at Tura and Baghmara.**

**1.7.2** The 13<sup>th</sup> Finance Commission has awarded an amount of Rs.2.00 crores for the entire Award Period (2010-2011 to 2014 – 2015) for the preparation of construction of warehouses at Tura, West Garo Hills and Baghmara, South Garo Hills for storage of essential foodgrains.

**1.7.3** The State Ware Housing Corporation has so far constructed a total capacity of 13200 M.T. During the Annual Plan 2010-11, an additional capacity of 0.025 Metric tones is proposed to be constructed in places like Shillong and Tura, where additional storage spaces are required for buffer stocking of foodgrains.

## 1. 8. COOPERATION

**1.8.1.** The projected outlay for the Eleventh Plan (2007-2012) is Rs.5100.00 lakhs. The actual expenditure during 2009-10 was Rs.613.87 lakhs. The approved outlay during 2010-11 is Rs.550.00 lakhs and the anticipated expenditure is Rs.700.00 lakhs. The anticipated expenditure for the period 2007-2011 is Rs.2490.05 lakhs. **The proposed outlay for the Annual Plan 2011-12 is Rs. 850.00 lakhs.**

**1.8.2.** The Cooperative Movement in the State has not yet been able to play its role effectively in the promotion of equity, social justice and economic development because of the structural weakness of the majority of the Cooperative Societies as well as the managerial inefficiency. Liberalisation of economy has thrown a new challenge for survival of Cooperatives in the state and special attention is thereby required for strengthening of the Cooperative Organisation.

### **1.8.3. Programmes for Annual Plan 2011-12:-**

The programmes for the Annual Plan 2011-12 are worked out keeping in view the need for balanced development of the Cooperative Movement in the State as a self reliant instrument of socio- economic service in the given period. The detail programmes are as follows:-

- Assistance to Multi purpose Rural Cooperatives.
- Assistance to Credit Co-operatives
- Other Cooperatives
- Other Expenditure
- Information & Publicity.

**1.8.4.** The break up of the projected outlay for the 11<sup>th</sup> plan, approved outlay and anticipated expenditure during 2010-11 and the proposed outlay for 2011-12 are indicated below :-

(Rs. lakhs)

Sl. No.	Name of scheme	Projected outlay for 11 <sup>th</sup> Plan	Actual expenditure 2009-10	Approved outlay 2010-11	Anti. expd. 2010-11	Proposed outlay 2011-12
1.	Direction & Administration	565.00	229.37	218.00	250.00	400.00
2.	Training	70.00	3.00	3.00	3.00	5.00
3.	Research & Evaluation	11.50	-	1.00	2.00	2.00
4.	Information & Publicity	40.00	5.00	5.00	5.00	6.00
5.	Assistance to Multipurpose Rural Cooperation	143.00	70.00	60.00	80.00	65.00
6.	Assistance to Credit Cooperatives	2550.00	17.00	17.50	30.00	45.00
7.	Assistance to Other Coop.	946.50	125.50	101.50	130.00	120.00
8.	Other Expenditure	553.00	146.00	125.00	180.00	180.00
9.	Agril. Credit Stabilization Fund.	20.00	-	-	-	2.00
10.	Education	196.00	18.00	19.00	20.00	25.00
	<b>Total</b>	<b>5100.00</b>	<b>613.87</b>	<b>550.00</b>	<b>700.00</b>	<b>850.00</b>