

<b>INDEX</b>			
<b>SL.</b>	<b>CONTENTS</b>	<b>PAGE</b>	
<b>No.</b>			
<b>I</b>	<b>Introduction</b>		
<b>II</b>	<b>Achievement at a glance 2004-05</b>		
<b>III</b>	<b>Crop Production</b>		
1	Estimate of Area, Production & Yield of Field Crops during 2004-2005.		
2	District-wise estimates of Area Production and Average Yield of Field Crops in Sikkim during 2004-2005.		
3	Season-wise estimates of Area, Production and Average Yield of Field Crops 2004-2005.		
4	Crop Yield Estimation Conducted in Sikkim during 2004-2005.		
5	High Yielding Varieties Coverage in Sikkim during 2004-2005.		
6	Improved Varieties Coverage in Sikkim during 2004-2005.		
7	Government Farm Seed Production in Sikkim during 2004-2005.		
8	District-wise Distribution of Certified/TL Seed from Outside Source in Sikkim during 2004-2005.		
9	Progress Report of Seed Testing Laboratory during 2004-2005.		
10	Total Consumption of Fertilizers during 2004-2005.		
11	Annual Progress Report of Organic farming		
12	Progress Report of Soil Testing Laboratory during 2004-2005.		
13	Annual Progress Report of Plant Protection 2004-05.		
14	Achievements of Mushroom Development during 2004-2005.		
15	Progress Report on Women in Agriculture		
16	Progress Report on Border Area Development Programme		
17	Report of Engineering Cell for the year 2004-2005.		

18	Report of Soil Conservation during 2004-2005.		
19	Macro Management of Agriculture in Sikkim, 2004-2005.		
<b>IV</b>	<b>Success Story - District wise</b>		
(a)	East Dist - Mushroom Production		
(b)	South Dist - Certified Seed Production Programme		
(c)	West District - Compost & Bokashi Production through EM		
	Technology		
<b>V</b>	<b>List of Biovillages</b>		

## I. Introduction

Agriculture and allied field is the backbone of the rural population and their overall security. Agriculture is practiced in approximately 11 per cent of the total geographical area of the State and more than 64 per cent of the populations are dependent on agriculture for their livelihood. The geographical location of Sikkim provides optimum conditions for the cultivation of a wide range of agricultural and horticultural crops and animal farming as components of well settled, terraced, mixed farming systems.

The net cultivated area of the State is about 80,000 ha (including cardamom field) while the cropped area has been decreasing due to diversion of land for industry, road, schools, hospitals, housing, etc. The horizontal expansion of area under cultivation does seem possible. The area under assured irrigation is less than 5-per cent. All the area under rice crop has been considered as irrigated area but many rice fields cannot be irrigated even during kharif season if the rainfall is less than normal. Hence, the entire agriculture in the State is practically rainfed.

The agro-climatic conditions of the state vary from subtropical to alpine. No single crop or variety can suit all the elevation ranges. The agro-ecological conditions of the state are conducive for loss of soil and nutrients from the farming systems. Low yielding, traditional cultivars continue to dominate the agrarian scenario while the Department is exerting sincere efforts to replace them with the improved varieties. The fertilizer consumption level in the state is

extremely low and agriculture is dominated by high dependency on organic sources of nutrients. All this leads to low per unit productivity as compared to the national averages.

Sikkim was declared as an organic state in 2003. To convert Sikkim into an organic state, emphasis has to be given on organic farming. In all the production programmes, organic alternatives of crop nutrition and protection are being incorporated with simultaneous reduction in the subsidies on chemical fertilizers and pesticides. New technologies for organic farming system are being introduced and extension functionaries are being trained for transfer of this new technology. A technology for the rapid compost making - EM technology is being propagated among the farmers since last year in technical collaboration with M/S Maple Orgtech, Dehradun. For the control of insect pest in the farmers' fields, IPM technology is being practiced. Predators are produced in the State IPM Laboratory and released in the fields to control the insect pest as and when required.

The Various Schemes covered under the Macro management of Agriculture (100 percent CSS) like Integrated Cereal Development Programme, Oilseeds Production Programme, National Pulses Development Programme, Accelerated Maize Development Programme, Integrated Nutrient Management Programme and National Resource Management Programme have significantly contributed to the enhancement of crop production and further helped in the transfer of scientific and improved farm technology to the grassroots level in the State. This Scheme added more in the strengthening of infrastructure.

The Department took positive steps for reducing dependence on certified seed from outside the state. Seed production programme was done through Registered Seed Growers and in Government Farms. Farm mechanization is the most important component in the process of crop production system. Implements suitable to the area were produced and training was provided to the artisans in fabrication of the farm implements and tool.

## **II. ACHIEVEMENT MADE DURING AT A GLANCE**

**2004-05**

## **II. Achievement made During 2004-05 at a glance**

### **A. Crop Production**

- During the year 2003-04 the food grain production was 99.34 thousand tonnes and which increased to 101.17 thousand tonnes during 2004-05 that was 2 per cent increase. There was slight increase in the oilseed production, which was 7.56 tonnes in 2004-05 and 7.44 tonnes during 2003-04.

### **B. Seeds**

- The total area coverage by high yielding varieties in different cereal crops was 26.69 thousand hectare during 2004-05, while it was 20.31 thousand hectare during 2003-04.
- The area coverage by improved variety was 5.65 thousand hectare.
- The certified/TL seeds distributed to the farmers from outside source were about 309.79 tonnes.
- The certified seed production in the Government Farm was 10.77 tonnes of rice, 10.00 tonnes of wheat and 8.00 tonnes of maize, while in the farmers' field it is 12.00 tonnes, 5.00 tonnes and 31.50 tonnes, respectively.
- As a component of seed certification programme one modern Seed-Processing Unit of 20 tonnes capacity with cold storage facility was commissioned at Majitar, having all the facilities required for seed processing.

### **C. Manures and Fertilizers**

- The fertilizer consumption was about 131.56 tonnes in the year 2003-04 and 133.30 tonnes during 2004-05. Per hectare consumption was about 1.22 kg in terms of nutrients.
- The organic manure production in the farmers' field through EM Technology was about 4496.80 tonnes and bokashi was 363 tonnes during the reporting year.

### **D. Mushroom**

- 10,000 bottles of spawn was produced for distribution to farmers and fresh mushroom production in farmers' field was recorded at 5.5 tonnes.

### **E. IPM**

- 0.8 million bio-control agents were released in to the crops during the year.

### **F. Agriculture Engineering**

- 445 numbers of agricultural tools and implements were fabricated in the Engineering Workshop, Marchak during 2004-05 and the total number of participants in the training of rural artisans for fabrication of seed bins, improved tools and implements were 131 numbers from all the Districts.

### **G. New Schemes**

- NEC Programme - A bio-fertilizer production unit is being established at Majitar on Turnkey basis with a reputed firm under the NEC funding which is likely to be commissioned during this financial year (2005-06).



- Planning, Monitoring and Evaluation - As per the Government policy this cell was established during this year. Agriculture Finance Corporation has been engaged in the preparation of the road map for the Agriculture Development.

## **H. Centrally Sponsored Programme**

- *Macro management of Agriculture* - The State has placed priority on , the sustainable development with the watershed approach to achieve the twin objectives of enhancing production with simultaneous conservation of the natural resources. Land development for the conservation of soil, plant nutrients and moisture with peoples' participation was taken up in compact areas and in identified villages.
- Water harvest structures for water storage through roof water harvesting and perennial water sources were constructed for irrigation during dry periods. The farmers' contribution is 75% of the total cost.
- Government farms were strengthened to meet the requirements of different trials and production of foundation and certified seeds.
- Large-scale demonstrations on package of technology involving HYVs, organic sources of nutrients and IPM were carried out in the farmers' fields.
- Farm mechanisation and human resource development are the major components of the programme; the details of the same are given in the last chapter.

- II. *Border Area Development Programme* - This programme was undertaken only in the East District in which compost pits were constructed, water storage tanks distributed and farmers' training were organised on crop management in organic farming systems.
- III. *Women in Agriculture* - Trainings to the farmwomen were provided to 21 groups on organic farming and other resource generating professions of farm level.
- IV. *National Project on Organic Farming* — This project could not be implemented during the year due to delay in receiving funds. This will be implemented during the year 2005-06. It is proposed to convert two Government farms into 'Centres of Excellence' for organic farming besides capacity building of extension workers and farmers.
- V. *Establishment of KVKs* - Government of India has agreed to establish three KVKs in the State. The funds are already approved for the North District at Mangan. For other two it is under process.

### **III CROP PRODUCTION**

**ESTIMATES OF AREA, PRODUCTION & YIELD OF FIELD CROPS OF SIKKIM DURING 2004-05**

<b>SL.NO.</b>	<b>CROP</b>	<b>AREA IN 000' HECTARES</b>	<b>PRODUCTION IN 000' TONNES</b>	<b>AVERAGE YIELD IN Kg/Ha</b>
<b>I</b>	<b>CEREALS</b>			
<b>1</b>	Rice	14.74	21.61	1466.00
<b>2</b>	Wheat	5.74	8.25	1437.00
<b>3</b>	Maize	36.70	58.19	1585.00
<b>4</b>	Finger-Millet	4.15	3.60	867.00
<b>5</b>	Barley	1.23	1.52	1235.00
<b>6</b>	Buckwheat	2.01	1.56	776.00
	<b>Total Cereals</b>	<b>64.57</b>	<b>94.73</b>	<b>1439.00</b>
<b>II</b>	<b>PULSES</b>			
<b>1</b>	Urd	3.78	2.84	751.32
<b>2</b>	Other Pulses	2.93	3.60	1228.66
	<b>Total Pulses</b>	<b>6.71</b>	<b>6.44</b>	<b>950.82</b>
	<b>TOTAL FOOD GRAINS</b>	<b>71.28</b>	<b>101.17</b>	<b>1419.33</b>
<b>II</b>	<b>OIL SEED</b>			
	Rapeseed & Mustard	6.00	4.28	713.00
	Soybean	3.89	3.25	835.00
	Other Oilseed.	0.06	0.03	500.00

	<b>TOTAL OIL SEED</b>	<b>9.95</b>	<b>7.56</b>	<b>770.00</b>
--	-----------------------	-------------	-------------	---------------

**DISTRICT – WISE ESTIMATES OF AREA, PRODUCTION AND AVERAGE YIELD OF  
FIELD CROP IN SIKKIM DURING 2004-05**

SL NO.	Crop	District	Area in 000' Hectares	Production in 000' Tonnes	Yield./Hectare in Kg.
<b>I.</b>	<b>CEREALS:</b>				
<b>1.</b>	Rice	North	1.00	1.00	1320.00
		East	6.30	9.57	1384.13
		South	2.34	3.41	1517.09
		West	5.10	7.63	1490.20
	<b>Total Rice</b>	<b>State</b>	<b>14.74</b>	<b>21.61</b>	<b>1437.58</b>
<b>2.</b>	Wheat	North	0.85	0.90	1082.35
		East	1.43	2.28	1438.85
		South	1.50	2.07	1380.00
		West	1.96	3.00	1550.00
	<b>Total Wheat</b>	<b>State</b>	<b>5.74</b>	<b>8.25</b>	<b>1409.41</b>
<b>3.</b>	Maize	North	1.61	2.90	1517.39
		East	9.27	13.24	1449.88
		South	12.50	18.75	1500.00
		West	13.32	23.30	1679.43
	<b>Total Maize</b>	<b>State</b>	<b>36.70</b>	<b>58.19</b>	<b>1554.00</b>
<b>4.</b>	Finger Miller	North	0.69	0.53	797.10
		East	1.00	0.86	810.00
		South	1.01	0.96	950.50

		West	1.45	1.25	862.07
	<b>Total Millet</b>	<b>State</b>	<b>4.15</b>	<b>3.60</b>	<b>860.24</b>
5.	Barley	North	0.14	0.12	785.71
		East	0.44	0.50	1136.00
		South	0.20	0.30	1500.00
		West	0.45	0.60	1333.33
	<b>Total Barley</b>	<b>State</b>	<b>1.23</b>	<b>1.52</b>	<b>1227.64</b>
6.	Buck Wheat	North	0.20	0.12	700.00
		East	0.56	0.47	890.00
		South	0.58	0.42	724.14
		West	0.67	0.55	776.12
	<b>Total BuckWheat</b>	<b>State</b>	<b>2.01</b>	<b>1.56</b>	<b>771.14</b>
7.	Cereals	North	4.49	5.57	1260.77
		East	19.00	26.92	1416.84
		South	18.13	25.91	1429.12
		West	22.95	36.33	1583.01
	<b>Total</b>	<b>State</b>	<b>64.57</b>	<b>94.73</b>	<b>1439.68</b>

<b>II</b>	<b>PULSES</b>				
1.	Urd	North	0.02	0.01	500.00
		East	0.36	0.23	555.56
		South	1.70	1.31	770.59
		West	1.70	1.29	758.82

	<b>Total Urd</b>	<b>State</b>	<b>3.78</b>	<b>2.84</b>	<b>743.39</b>
<b>2.</b>	Other Pulses	North	0.06	0.04	1000.00
		East	1.40	1.6	1142.00
		South	0.72	0.95	1319.44
		West	0.75	1.01	1346.67
	<b>Total Other Pulses</b>	<b>State</b>	<b>2.93</b>	<b>3.6</b>	<b>1218.43</b>
<b>3.</b>	Pulses	North	0.10	0.05	1000.00
		East	1.59	1.83	946.69
		South	2.42	2.26	933.88
		West	2.60	2.30	965.38
	<b>Total Pulses</b>	<b>State</b>	<b>6.71</b>	<b>6.44</b>	<b>950.82</b>
<b>4.</b>	FOOD GRAIN	North	5.28	5.66	1255.68
		East	19.86	28.47	1331.82
		South	20.55	28.17	1377.62
		West	25.59	38.87	1483.00
	<b>TOTAL FOOD GRAIN</b>	<b>State</b>	<b>71.28</b>	<b>101.17</b>	<b>1393.66</b>
<b>III.</b>	<b>OIL SEEDS</b>				
<b>1.</b>	Rape & Mustard	North	0.86	0.61	709.30
		East	1.90	1.33	700.00
		South	1.66	1.21	728.92
		West	1.58	1.13	708.86
	<b>Total Rape &amp; Mustard</b>	<b>State</b>	<b>6.00</b>	<b>4.28</b>	<b>700.00</b>
<b>2.</b>	Soybean	North	0.40	0.31	750.00



		East	0.75	0.65	837.84
		South	1.40	1.2	850.00
		West	1.34	1.09	814.81
	<b>Total Soybean</b>	<b>State</b>	<b>3.89</b>	<b>3.25</b>	<b>825.19</b>
	Other Oilseed	North			
		East			
		South	0.04	0.02	500.00
		West	0.02	0.01	500.00
	<b>Total Other Oilseed</b>	<b>State</b>	<b>0.06</b>	<b>0.03</b>	<b>500.00</b>
	Oil Seed	North	1.26	0.92	904.76
		East	2.64	1.98	625.00
		South	3.10	2.43	780.65
		West	2.95	2.23	755.93
	<b>Total Oil Seed</b>	<b>State</b>	<b>9.95</b>	<b>7.56</b>	<b>747.71</b>

**SEASON –WISE ESTIMATES OF AREA AND PRODUCTION OF FIELD  
CROPS IN SIKKIM DURING 2004-05**

Area in '000' Hectares		Production in '000' Tonnes			Yield in kg/hect
SL NO.	Crop	Season	Area	Production	Yield.
<b>I</b>	<b>CEREALS</b>				
1.	Rice	Kharif	14.74	21.61	1437.58
		Rabi	-	-	-
		Annual	14.74	21.61	1437.58
2.	Wheat	Kharif	-	-	-
		Rabi	5.74	8.25	1409.41
		Annual	5.74	8.25	1409.41
3.	Maize	Kharif	36.59	58.01	1555.34
		Rabi	0.11	0.18	1400
		Annual	36.7	58.19	1554.49
4.	Finger Millet	Kharif	4.15	3.60	860.24
		Rabi	-	-	-
		Annual	4.15	3.60	860.24

5.	Barley	Kharif	-	-	-
		Rabi	1.23	1.52	1227.64
		Annual	1.23	1.52	1224.64
6.	Buck Wheat	Kharif	-	-	-
		Rabi	2.01	1.56	771.14
		Annual	2.01	1.56	771.14
	TOTAL CEREALS	Kharif	55.48	83.22	1472.32
		Rabi	9.09	11.51	1250.00
		Annual	64.57	94.73	1439.68
II	PULSES				
1.	Urd	Kharif	0.08	0.06	600.00
		Rabi	3.70	2.78	745.30
		Annual	3.78	2.84	743.39
	Other Pulses	Kharif	0.23	0.32	1500.00
		Rabi	2.70	3.28	1197.80
		Annual	2.93	3.60	1218.43
	TOTAL PULSES	Kharif	0.31	0.38	1320.00
		Rabi	6.40	6.06	936.53
		Annual	6.71	6.44	950.82
	TOTAL	Kharif	55.79	83.60	1471.63

	<b>FOODGRAIN</b>	<b>Rabi</b>	<b>15.49</b>	<b>17.57</b>	<b>1122.96</b>
		<b>Annual</b>	<b>71.28</b>	<b>101.17</b>	<b>1393.66</b>
<b>III.</b>	<b>OIL SEEDS</b>				
	<b>Rapeseed &amp; Mustard</b>	<b>Kharif</b>	<b>-</b>	<b>-</b>	<b>-</b>
		<b>Rabi</b>	<b>6.00</b>	<b>4.28</b>	<b>700.00</b>
		<b>Annual</b>	<b>6.00</b>	<b>4.28</b>	<b>700.00</b>
	<b>Soybean</b>	<b>Kharif</b>	<b>3.89</b>	<b>3.25</b>	<b>825.19</b>
		<b>Rabi</b>	<b>-</b>	<b>-</b>	<b>-</b>
		<b>Annual</b>	<b>3.89</b>	<b>3.25</b>	<b>825.19</b>
	<b>Other oil seed</b>	<b>Kharif</b>	<b>-</b>	<b>-</b>	<b>-</b>
		<b>Rabi</b>	<b>0.06</b>	<b>0.03</b>	<b>500.00</b>
		<b>Annual</b>	<b>0.06</b>	<b>0.03</b>	<b>500.00</b>
	<b>TOTAL OIL SEEDS</b>	<b>Kharif</b>	<b>3.89</b>	<b>3.25</b>	<b>825.19</b>
		<b>Rabi</b>	<b>6.06</b>	<b>4.31</b>	<b>698.02</b>
		<b>Annual</b>	<b>9.95</b>	<b>7.56</b>	<b>747.74</b>

## **CROP YIELD ESTIMATION CONDUCTED IN SIKKIM**

### **DURING 2004-05**

SI No	CROP	Particulars	No. of Crop cutting conducted					
			North	East	South	West	Check	Total
1.	Rice	Target	220	360	190	310	10	1090
		Achievement	220	205	190	310	10	925
2.	Wheat	Target	60	90	90	80	10	330
		Achievement	60	205	90	70	10	435
3.	Kharif Maize	Target	180	260	260	200	10	910
		Achievement	180	254	260	190	10	894
4.	Rabi Maize	Target	-	20	20	10	-	50
		Achievement	-	5	20	10	-	35
5.	Finger Millet	Target	25	25	40	20	-	110
		Achievement	25	61	40	20	-	146
6.	Barley	Target	10	15	30	25	-	80
		Achievement	10	20	30	25	-	99
7.	Buck Wheat	Target	30	30	40	25	-	125
		Achievement	30	38	40	25	-	133
8.	Urd	Target	-	67	90	60	3	220
		Achievement	5	64	90	60	3	222
9.	Ricebean	Target	-	53	70	50	2	175
		Achievement	5	50	70	50	2	172

10.	Rajmash	Target	30	53	40	40	-	163
		Achievement	30	-	40	35	-	105
11.	Toria	Target	-	-	-	-	-	-
		Achievement	-	-	75	-	-	75
12.	Other Pulses	Target	-	50	35	50	-	135
		Achievement	15	35	35	40	-	125
13.	Rape & Mustard	Target	50	120	120	100	10	400
		Achievement	50	160	120	100	10	440
14.	Soyabean	Target	30	80	90	50	5	255
		Achievement	30	70	90	50	5	245
15.	Other Oil Seed	Target	-	-	11	10	-	21
		Achievement	-	-	11	10	-	21
	<b>Total</b>	<b>Target</b>	<b>645</b>	<b>1234</b>	<b>1126</b>	<b>1030</b>	<b>50</b>	<b>4085</b>
		<b>Achievement</b>	<b>660</b>	<b>1164</b>	<b>1126</b>	<b>990</b>	<b>60</b>	<b>3990</b>

## HIGH YIELDING COVERAGE IN SIKKIM DURING 2004-05

SL NO	Crop	District	Area in hectares		
			Kharif	Rabi	Total
1.	Rice	North	570.00	-	570.00
		East	2050.00	-	2050.00
		South	980.00	-	980.00
		West	1800.00	-	1800.00
	<b>Total Rice</b>	<b>State</b>	<b>5400.00</b>	<b>-</b>	<b>5400.00</b>
2.	Wheat	North	-	840.00	840.00
		East	-	2249.00	2249.00
		South	-	1480.00	1480.00
		West	-	1750.00	1750.00
	<b>Total Wheat</b>	<b>State</b>	<b>-</b>	<b>6319.00</b>	<b>6319.00</b>
3.	Maize	North	1210.00	-	1210.00
		East	3370.00	43.00	3413.00
		South	5330.00	-	5330.00
		West	4950.00	70.00	5020.00
	<b>Total Maize</b>	<b>State</b>	<b>14860.00</b>	<b>113.00</b>	<b>14973.00</b>

4.	H.Y.V	North	1780.00	840.00	2620.00
		East	5420.00	2292.00	7712.00
		South	6310.00	1480.00	7790.00
		West	6750.00	1820.00	8570.00
	<b>Total H.Y.V</b>	<b>State</b>	<b>20260.00</b>	<b>6432.00</b>	<b>26692.00</b>



**IMPROVED VARITIES COVERAGE IN SIKKIM**  
**DURING 2004-05**

SL NO.	Crop	District	Area Coverage in Hectares		
			Kharif	Rabi	Total
1.	Finger – Millet	North	16.00	-	16.00
		East	60.00	-	60.00
		South	23.00	-	23.00
		West	45.00	-	45.00
	<b>Total Finger-Millet</b>	<b>State</b>	<b>144.00</b>	<b>-</b>	<b>144.00</b>
2.	Barley	North	-	3.00	3.00
		East	-	28.00	28.00
		South	-	8.00	8.00
		West	-	26.00	26.00
	<b>Total Barley</b>	<b>State</b>	<b>-</b>	<b>65.00</b>	<b>65.00</b>
3.	Urd	North	-	-	-
		East	-	-	-
		South	-	-	-
		West	-	-	-
	<b>Total Urd</b>	<b>State</b>	<b>-</b>	<b>-</b>	<b>-</b>
4.	Other Pulses	North	-	2.00	2.00
	(Ricebean,Mung,Field,Pea,Cowpea,	East	16.00	26.00	42.00

	Rajmash,etc)	South	20.00	-	20.00
		West	113.10	-	-
	<b>Total Other Pulses</b>	<b>State</b>	<b>36.00</b>	<b>28.00</b>	<b>64.00</b>
5.	Rape & Mustard	North	-	530.00	530.00
		East	-	1161.30	1161.30
		South	-	1430.00	1430.00
		West	-	1425.00	1425.00
	<b>Total Rape &amp; Mustard</b>	<b>State</b>	<b>-</b>	<b>4546.30</b>	<b>4546.30</b>
6.	Soybean	North	45.00	-	45.00
		East	284.61	-	284.61
		South	180.00	-	180.00
		West	325.00	-	325.80
	<b>Total Soybean</b>	<b>State</b>	<b>835.41</b>	<b>-</b>	<b>835.41</b>
7.	Other Oilseed.(Sesamum,Safflower,niger,etc)	North	-	-	-
		East	-	-	-
		South	-	-	-
		West	-	-	-
	<b>Total Other Oilseed</b>	<b>State</b>	<b>-</b>	<b>-</b>	<b>-</b>
8.	Other(Sweet-Corn, Pop-corn, Buck Wheat, etc.)	North	-	-	-
		East	3.00	-	3.00-
		South	-	-	-
		West	-	-	-
	<b>Total Other Pulses</b>	<b>State</b>	<b>3.00</b>	<b>-</b>	<b>3.00</b>

	Improved Varities	North	61.00	535.00	596.00
		East	363.61	1215.30	1578.91
		South	223.00	1438.00	1661.00
		West	370.80	1451.00	1821.80
	<b>Total Improved varities</b>	<b>State</b>	<b>1018.41</b>	<b>4639.30</b>	<b>5657.71</b>

## GOVERNMENT FARM SEED PRODUCTION IN SIKKIM DURING 2004-05

SL NO.	CROP	VARIETY	North	East	South	West	Total
1.	Paddy	PD-10/Suugandha ½ Sugandha	1.98	16.13	3.00	80.25	101.36
			-	-	-	6.40	6.40
	<b>Total Paddy</b>		<b>1.98</b>	<b>16.13</b>	<b>3.00</b>	<b>86.65</b>	<b>107.76</b>
2.	Wheat	Sonia/Sonalika	5.05	28.06	2.70	65.60	101.41
3.	Maize	Parmila/Suwan Comp.	11.50	27.17	21.50	19.86	80.03
4.	Finger Millet	PES-95/local	1.40	-	2.00	-	3.40
5.	Barley	DWR-28	-	1.50	0.60	-	2.10
		VLB-1	-	-	-	10.40	10.40
	<b>Total Barley</b>		<b>-</b>	<b>1.50</b>	<b>0.60</b>	<b>10.40</b>	<b>12.50</b>
6.	Buck Wheat	Meethe	-	2.20	-	4.33	6.53
	<b>TOTAL CEREALS</b>		<b>19.93</b>	<b>75.06</b>	<b>29.80</b>	<b>186.84</b>	<b>311.63</b>
7.	Ricebean	Local	-	-	1.5	-	1.50
8.	Rajmah	VL-63/Jwala	-	-	0.40	1.30	1.70
9.	Rape & Mustard	Pusa bold/yellow Sarson	1.00	3.05	2.52	0.83	7.40
		MS-21	-	-	-	2.50	2.50
	<b>Total R &amp; M</b>		<b>1.00</b>	<b>3.05</b>	<b>2.52</b>	<b>3.33</b>	<b>14.58</b>
10.	Soyabean	PK-472	1.92	1.87	13.30	1.13	18.22

		JS-335	-	2.65	-	9.00	11.65
	<b>Total Soyabean</b>		<b>1.92</b>	<b>4.52</b>	<b>13.30</b>	<b>10.13</b>	<b>24.90</b>
	<b>Total Oil Seed</b>		<b>2.92</b>	<b>7.57</b>	<b>17.72</b>	<b>14.76</b>	<b>42.97</b>
	<b>Grand Total</b>		<b>22.85</b>	<b>82.63</b>	<b>47.52</b>	<b>201.60</b>	<b>354.60</b>

<b>DISTRICT - WISE DISTRIBUTION OF CERTIFIED / TL SEED OF OUTSIDE SOURCE IN SIKKIM DURING 2004-2005</b>							
							( In Qtls)
Sl. No.	CROP	VARIETY	NORTH	EAST	SOUTH	WEST	STATE
1	<b>Paddy</b>	PD-10	22.00	260.05	59.00	58.10	399.15
		Hybrid - 6201	2.00	10.25	4.00	4.00	20.25
		<b>Total Paddy</b>	<b>24.00</b>	<b>270.30</b>	<b>63.00</b>	<b>62.10</b>	<b>419.40</b>
2	<b>Wheat</b>	Sonalika	215.20	569.60	512.20	436.40	1733.40
		<b>Total Wheat</b>	<b>215.20</b>	<b>569.60</b>	<b>512.20</b>	<b>436.40</b>	<b>1733.40</b>
3	<b>Maize</b>	NLD White	8.40	31.52	20.34	20.16	80.42
		Suwan Composite	-	39.45	24.50	20.02	83.97
		Ganga Safed	10.60	27.70	33.85	17.84	89.99
		Pop corn	0.80	1.35	1.40	1.35	4.90
		Baby corn	-	3.00	-	-	3.00
		Navjot	-	30.10	-	-	30.10
		<b>Total Maize</b>	<b>19.80</b>	<b>133.12</b>	<b>80.09</b>	<b>59.37</b>	<b>292.38</b>
4	<b>Barley</b>	DWR-28	3.00	5.60	8.70	2.70	20.00
		<b>Total Cereal</b>	<b>262.00</b>	<b>978.62</b>	<b>663.99</b>	<b>560.57</b>	<b>2465.18</b>
5	<b>Field Pea</b>	Aparna	3.80	20.00	19.92	22.40	75.12
		<b>Total Field Pea</b>	<b>3.80</b>	<b>20.00</b>	<b>19.92</b>	<b>22.40</b>	<b>75.12</b>
		<b>Total Pulses.</b>	<b>20.50</b>	<b>49.51</b>	<b>52.80</b>	<b>50.70</b>	<b>163.51</b>
		Pusa Bold	13.68	-	14.29	-	-
6	<b>Mustard</b>	MS-21	13.66	40.36	19.39	40.63	95.00

		<b>Total Mustard</b>	<b>27.34</b>	<b>40.36</b>	<b>33.68</b>	<b>40.63</b>	<b>95.00</b>	
<b>7</b>	<b>Soyabean</b>	J.S. - 335	51.59	104.81	101.57	106.30	368.87	
		<b>Total Soyabean</b>	<b>51.59</b>	<b>104.81</b>	<b>101.57</b>	<b>106.30</b>	<b>368.87</b>	
		<b>TOTAL OIL SEED.</b>	<b>78.93</b>	<b>140.12</b>	<b>130.85</b>	<b>197.00</b>	<b>510.88</b>	
		<b>GRAND TOTAL.</b>	<b>376.03</b>	<b>1286.88</b>	<b>802.77</b>	<b>622.23</b>	<b>3087.91</b>	

## PROGRESS REPORT - SEED TESTING LABORATORY

01.04.04 - 31.03.2005

1. Name of Laboratory and Address			State Seed Testing Laboratory Department of Food Security & Agriculture Development Marchak, Ranipool - 737135						
2. Status of laboratory, whether notified (under section 4 of Seed Act 1966) Y/N			Y						
3. Notified seed analyst (under section 12 of seed Act-1966)			Nil						
4. Un-notified seed Analyst (under section 12 of Seed Act 1966)			1						
5. Other Staff			4+3 = 7						
6. Capacity of the Laboratory in previous year (nos.)			5000						
7. Existing capacity of the Laboratory (nos.)			5000						
8. Detail of seed sample testing during the period									
Type sample	Target	Total Sample tested	Sample rejected due to						
			Genetic	Phy. Purity	Moisture	Germination	Seed health	Total	Rejected
Certified	5000	80	-	-	-	10	-	80	10
Service		4929	-	-	-	81	-	4929	81
Official		-	-	-	-	-	-	-	-
<b>Total</b>	<b>5000</b>	<b>5009</b>				<b>91</b>		<b>5009</b>	<b>91</b>



## PROGRESS REPORT 2004-05, SEED TESTING LABORTORY

### 1. CERTIFIED SEED PROCESSING & DISTRIBUTION

#### Farmers Field

DIST	LOCATION	CROP VARIETY	NOS. OF REGD. FARMERS	NET QTY. PRODUCED
West	Daramdin, Mangsari & Malbassey	Paddy-PD-10	4	2551 kg.
South	Lingzo (Ravangla) ,Tinkchisopani and Melli Dara.	Paddy PD-10 & Sugandha	5	3038 kg.
East	Nazitam, Pakyong, Marchak, Mulukey, Pend am, Mazitar, Sirwani, Rumtek, Namley etc.	Paddy -PD-10 Sugandha-2& VL-61	14	6862 kg.
	TOTAL		29	<b>PADDY-12451 kg.</b>
				<b>Soybean -324 kg.</b>
				<b>Rajmas -218 kg</b>

#### **Government Farms**

GOVT. FARMS	CROP & VARITEY	NET. QUANTITY
Daramdin	Paddy-PD-10 & Sugandha	6570 kg
	Soybean-PK-472 & JS-335	577 kg
Nazitam	Paddy-PD- & Sugandha -2	421 kg

Marchak	Paddy-PD-10 & Sugandha-2 & VL-61	868 kg
	Sybean	177 kg
	<b>TOTAL</b>	<b>Paddy – 7850 kg</b>
		<b>Soybean-688 kg</b>

**Grand Total**

<b>PRODUCER</b>	<b>PADDY</b>	<b>SOYBEAN</b>	<b>RAJMAS</b>
Govt. Farms	7859 kg	688 kg	-
Certified growers	12451 kg	324 kg	218 kg
<b>TOTAL</b>	<b>203.10 Qtls.</b>	<b>10.12 Qtls</b>	<b>2.18 Qtls</b>

**TOTAL CONSUMPTION OF FERTILIZERS 1<sup>ST</sup> APRIL 2004 TO 31<sup>ST</sup> MARCH  
2005**

**IN TERMS OF MATERIALS**

<b>UREA</b>	<b>126.42</b>	<b>Metric Tonnes</b>
<b>DAP</b>	<b>110.07</b>	<b>Metric Tonnes</b>
<b>MOP</b>	<b>7.85</b>	<b>Metric Tonnes</b>
<b>SSP</b>	<b>-</b>	<b>Metric Tonnes</b>
<b>TOTAL</b>	<b>244.34</b>	<b>Metric Tonnes</b>

**IN TERM OF NUTRIENT**

<b>NO2</b>	<b>77.96</b>	<b>Metric Tonnes</b>
<b>P2</b>	<b>50.63</b>	<b>Metric Tonnes</b>
<b>K20</b>	<b>4.71</b>	<b>Metric Tonnes</b>
<b>TOTAL</b>	<b>133.3</b>	<b>Metric Tonnes</b>

## PROGRESS REPORT ON ORGANIC FARMING THROUGH EM TECHNOLOGY

SL NO.		Unit	East	West	North	South	Total
1.	No. of compost Prepared	No.	1860	1474	757	1530	5621
2	Compost Produced	MT.	1488	1179	605	1224	4496
3	Bokashi produced by the farmer	MT.	128.08	98.48	53.76	82.46	362.78

**I. PROGRESS REPORT OF SOIL TESTING LABORATORY DURING 2004-05**

(April 2004 March 2005)

Soil Testing Laboratories	Static	Mobile	Total
No. of soil testing laboratories	1	Nil	1
Annual analysing capacity	5000	-	5000
No. of sample analysed	1580	-	1580

Source of samples

Source	No. of samples
Direct by farmers	875
Government Farms	700
Any other	5

III. Soil fertility status of total samples analyse during the period.

Sl.No.		Low	Medium	High	Total
1	Organic carbon (%)	237	316	1027	1580
2	Avai. Nitrogen				
3	Avai. Phosphorous				
4	Avai. Potassium				
5	pH range 4.3-6.8 Average 6.2				

IV. Micro-Nutrient status of soil samples analysed during the period : Nil since there are no facility available at present.

Year	No. of cards made available to farmers
2001-2002	1127
2002-2003	1500
2003-2004	1200
2004-2005	1580

**Annual Progress Report of Plant Protection**

**Section for the year 2004-2005**  
**The following activities**  
**were carried out in Plant Protection Section.**

- i. Release of bioagent to control pests. Release of Tricogogramma Chilonis- 0.80 millions. Release on different Crops.**
  
- ii. No Chemical pesticides has been purchased except some Rodenticides and Bio-pesticides.**
  
- iii. IPM - training to farmers in F.F.S.**

**MUSHROOM DEVELOPMENT PROGRAMME IN SIKKIM  
DURING 2004-2005**

Sl.No	PROGRAMME	Unit	Physical Target	Achievement
<b>1</b>	<b>SPAWN PRODUCTION;-</b>			
a.	<u>Pleurotus Sajor - caju</u>	Bottle	6800	6342
.	<u>Pleurotus florida</u>	- do -	1000	3786
c.	Agaricus bisporus	- do -	1600	300
d.	Others	- do -	600	----
	<b>TOTAL</b>	<b>TOTAL</b>	<b>10,000</b>	<b>10428</b>
<b>2</b>	<b>DEMONSTRATION :-</b>			
a.	<u>Pleurotus Species</u>	Block	56	168
b.	Agaricus bisporus	Block	14	25
<b>3</b>	<b>ADAPTIVE TRIALS</b>	<b>Nos</b>	<b>7</b>	<b>5</b>
<b>4</b>	<b>CULTIVATION TRAINING.</b>	<b>Nos.</b>	<b>70</b>	<b>IN LAB - 256</b> <b>IN FIELD - <u>170</u></b> <b>426</b>
<b>5</b>	<b>FRESH MUSHROOM PRODUCTION.</b>			
	<b><u>LAB.</u></b>			
	a) Oyster Mushroom	Kg.	-	149.00
	b) Button Mushroom	Kg.	-	291.75
	<b><u>FARMERS FIELD</u></b>			4000
	a) Oyster Mushroom	Kg.	-	1500
	b) Button Mushroom	Kg.	-	

<b>6</b>	<b>REVENUE ( DEMO + CASH )</b>			
	a) Spawn	Rs.	-	14950.00
	b) Oyster Mushroom	Rs.	-	11600.00
	c) Button Mushroom	Rs.	-	23340.00
	c) Button Mushroom	Rs.	-	7600.00
		<b>Rupees</b>		<b>57490.00</b>

(Rupees Fifty seven thousand four hundred ninety) only.



## ROLE OF WOMEN IN FOOD SECURITY & AGRICULTURE

### DEVELOPMENT DEPARTMENT OF STATE : SIKKIM.

Role of women in Food Security & Agriculture Development play an vital role in accelerating the socio-economic development of the state. Economic development means the growth of output or real income per head of the population. Economic, development also brings social, institutional and organizational changes.

A women constitutes almost half of the population in State Sikkim and are indicated below as per the 1991 Census.

<b>DISTRICT</b>	<b>MALE POPULATION</b>	<b>FEMALE POPULATION</b>	<b>STATE TOTAL</b>
<b>RURAL</b>	<b>1,95,277</b>	<b>1,74,174</b>	<b>3,69,4521</b>
<b>URBAN</b>	<b>21,150</b>	<b>15,856</b>	<b>37,006</b>
<b>TOTAL</b>	<b>2,16,427</b>	<b>1,90,030</b>	<b>4,06,457</b>

Around 90% of total female population of the state lives in rural areas. Women's contribution to the economic growth of the society is quite substantial although it is a known fact that the labour put in by women in discharging the economic and domestic duties hardly gets its due recognition.

**ACHIEVEMENT DURING 2003-2004**

1. Village based training
2. Mahila Ghosti at Marchak
3. Study tour out side the State (Uttaranchal for organic farming)
4. Result demonstration.

**ACHIEVEMENT DURING 2004-2005**

1. Village based training (15 groups has been trained).
2. Refresher Training of facilitator.
3. Link water training
4. Result demonstration on maize & EM Technology.
5. Education tour of women farmer's outside state (Himachal Pradesh)

**WOMEN IN AGRICULTURE  
ACHIEVEMENT MADE DURING 2004-2005**

Sl. No.	Activities	Target	Achivements	Financial Expenditure	Remarks
1	Honorarium to women facilitator @ Rs. 4,000/-	-	-	Rs. 96000.00	Due to late receipt of fund
	per monthx2 facilitator				from
	and T.A. @ Rs. 1000/-				Government of
	per month				India, Advance
					bas been drawn
					and training will
					be conducted as
					per guidelines.
2	Training to the women group on organic farming and crop husbandry including honorarium to guest speakers	15 (Groups)	21 (Groups)	Rs. 1,43,750.00	
	TOTAL	15 (Groups)	(21 Groups)	Rs. 2,39,750.00	

**PROGRESS REPORT OF BORDER AREA DEVELOPMENT PROGRAMME, EAST  
DISTRICT, FOR THE YEAR 2004-2005**

SI.No.	Item	Unit	Target		Achievement		Remarks
			Phy.	Fin.	Phy.	Fin.	
1	Construction of RCC compost pit	Nos	70	14	70	14	Programme successfully implemented
2	Distribution of water storage tanks (Rotak)	Nos	200	4	200	4.83	-do-
3	Farmers training on crop management organic farming	Nos	300	1.17	300	1.17	-do-

## **ANNUAL PROGRESS REPORT OF THE ENGINEERING CELL FOR THE YEAR 2004-2005**

### **I.FARM MACHANIZA TION:**

Farm Mechanization ensures timeliness of operation and proper utilization of inputs resulting considerable increase in productivity from limited cultivable and water resources available on sustainable basis. The Engineering Cell of the Department has continuous efforts to search better and suitable improved tools and implements from tillage to post harvest operations with the state. During the year 2004-05, specific, programmes of popularization of Improved Agriculture Tools & Implements were taken up from the state plan and macro-management schemes.

Under the approved state plan, traditional Tools and implements some are with slight modifications have been fabricated in the departmental workshop and distributed to government farms for trials and demonstration purpose. Details of the tools and Implements manufactured at the Agri-Engineering workshop at Marchak is shown at ANNEXURE-I.

The Soil Steering Plough brought during 2003-04 was found to be very successful Implements and lots of farmers have requisitioned the same. With slight modification in terms of local field condition. 760 Nos. of ploughs are procured for trials and demonstrations in government Farms as well as onward distributions to the farmers all over the state accordingly.

Limited men Power and budgetary provision are the major constraints to boost up the day to day activities of the workshop. During the last financial year various tools and implements were fabricated at the Marchak workshop.

Details of the utilization of the raw materials used for the manufacturing of agricultural tools & implements is annexed at-II. The tools & implements fabricated at the Engg. Workshop were distributed to various farms and sold through the sale counter at Marchak. All the staff/worker of the workshop were

also engaged for various jobs such as installation of machines of Agro-Service centers provided to beneficiaries in different locations of the state.

One Agricultural Engineer was sent to visit G.B. Pant Institute of Technology, Pant Nagar in Uttaranchal and Central Institute of Agricultural Engineering (CIAE), Bhopal in M.P. to get first hand knowledge on newly developed Improved Tools and Implements and Equipments especially for the Hilly Region. Some of the Implements were identified and selected for trial and use in the state including Animal Drawn Zero Tillage Drill. Limited numbers of such Implements are procured during the current financial year for demonstration, trial and testing in different terrains.

## **II. WATER MANAGEMENT:**

Installation of Sprinkler Irrigation System was approved for Bermiok Farm on turnkey basis during 2002-2003. But due to some technical problem, some technical problem the same was shifted to Gayzing Agriculture farm with the approval of the Government. The Installation was completed there with the construction of 96000 liters capacity RCC tank in October 2004. but due to handing over of the Gyalshing Agriculture Farm to sports and Youth Department as per the policy decision of the Government, new proposal have been initiated for installation of the Sprinkler Irrigation System to Daramdin Farm with necessary modification.\

Long desire of the North District for Repair of Irrigation Water Channel for providing Irrigation Water Facility to Mangan Agriculture Farm was taken up in three phases due to paucity of fund in the state plan. The work consisted of removing old closed type channels as it was creating problems during summer due to blockage. In its place an open type channel has been constructed so as to facilitate easy cleaning. Two phases of work has already been completed with the last 50 meters of work remaining in the final phase.

## **III. TRAINING AND DEMONSTRATIONS:**

This programme of Training of Rural Artisans in fabrication of Seed Bins, Agricultural Tools & Implements etc. has created an awareness among the

unemployed Youth for setting up of Private Entrepreneurship and is proposed for continuation in next year. The department is getting very good response for this short-term training programme specially from the unemployed Youths.

State level Workshop cum training programme on fabrication of Metallic seed bin and improved tools and implements for the rural Artisan was organized at the Agricultural workshop at Marchak during the month of March'05. One Hundred and Thirty (130) participant from all the Skkim have attended this training programme in four batches.

The Hon'ble Minister of FSAD & HCCD Department also attended the valedictory Function of the 2nd . Batch of trainees. During his discourse, the Hon'ble Minsiter urged the trainees to put their training to use and open up small manufacturing units with assistance from various financial institution and nationalized Banks for which he promised to extend all possible help. He also expressed his desire to call upon a meeting with all trained Artisans since initiation of this Training Programme for further interaction and feed back. Hon'ble Minister has appreciated the efforts of the Engineering Cell to train up the unemployed Youths under this Centrally Sponsored Scheme and trace to take up this Programme in larger scale in near future.

A batch of 22 (twenty two) farmers from all four districts were sent to North Eastern Region Farm Machinery Training & Testing Institute, Biswanath Chariali, Sonitpur, Assam, for one month training during 1st to 30th September '04 The list of Trainees who underwent various training ]programme is at ANNEXURE-III & IV.

#### ***IV. ORGANIC FARMING:***

Application of Chemical Fertilizer Continuously is a problem to the Soil and its fertility including Environmental and Health Harzards to the users. With this view the concept of Organic Farming - use of Bio fertilizer is encouraged by the State Government. Skkim has been declared as organic state and use of chemical Fertilize will be gradually reduce to zero and simultaneously the use of Bio-Fertilizer is encourgaged. This plays an important major role in Organic Farming and this is one of the components which adds higher, percentage of Plant

Nutrients to the Soil. Keeping in view its importance, a Bio-fertilizer production unit is being established at Mazitar on Turn Key basis with a reputed firm, under NEC funding, at an estimated cost of 40.41 lakh. All the machineries have been delivered at the site and the civil work is 80% completed . The unit is expected to be operational by June '05.

#### ***V. PROCESSIONS & STORAGE:***

One modern Seed processing unit with a cold storage facility cold storage facility of 20 MT capacity has been commissioned at Mazitar, and handed over to seed Section. Facility of Pre-cleaning, Grading, Drying and Safe storage in Cold Store with controlled humidity has been provided. A Generator has been provided for emergency purpose. The processes involved here are registration, Pre-cleaning & Grading, Drying to the required moisture percentage and storage in a controlled Temperature & Relative humidity. This confirms to any other established modern Seed Processing Plant.

Establishment of similar Seed Processing Unit for catering to South & West District has been approved by the Government on Turn Key basis with the same Firm entrusted in commissioning of the Seed Processing Unit at Mazitar in a phased manner with vetting of the Turn key agreement by the Law Department, Government of Sikkim. All the works are under progress and is expected to be functional by June' 05 at its based.

This programme has been tied up with the certified Seed production Programme of the Department. These two seed Processing plants are to cover East & North and South & West Districts respectively.

Very recently one Agriculture Engineer attached to the Seed Processing Unit was sent along with the Plant Breeder of the department for undergoing one



week training programme on '**SEED PROCESSING & STORAGE**' conducted by National Seeds Corporation at Hyderabad, Andhra Pradesh.

## **VI. POST HARVEST MANAGEMENT :**

Under macro management, assistance were given to farmers for setting up of Agro-Service centers in rural areas by the GOI. Out of a project costs of Rs.2\* 0 lakhs, the farmers contribution worth Rs.1.0 lakh was provided in terms of infrastructure development like construction of sheds, approach roads and providing of 3-phase power line and installation of machines etc. Although the scheme pertains to 2003-04, selection of beneficiaries was delayed and carried out over to the financial year under report. The list of beneficiaries for Establishment of for Agro-Service centers in Rural Areas is at ANNEXURE-V.

These setting up of Agro-service centers in rural areas has have very good results, with farmers being able to supplement their income substantially and the farmers in the surrounding villages are also benefiting from it. Worth mentioning are the ones being operated by Shree Roshan Sharma of Timburbong and Mrs.Kumari Sharma. a widow of Tashiding, both of West District & Shree Gaj Bdr.Rai of Namphok, South Sikkim.

## **VII. REPORT ON INFRASTRUCTURE DEVELOPMENT (CAPITAL) AND REPARATION/MAINTENANCE UNDER MINOR WORKS FOR THE YEAR 2004-2005**

### ***(i) Agricultural Farms (Minor works):***

Various repair, renovation works of the department in consultation with the district Officer-in-Charge of the Districts were taken up and executed as per the fund availability during last financial year. Some of the details are mentioned below.

Renovation/face listing of the office room of DD(Accts) & AO at Head Office, Additional fencing work with Angle Iron post and Barbed wire at Chujachen Farm. Providing of File Racks for the Engineerting cell at H.O.. Minor Repar of Cl. II Qtr. At ICAR complex. Additional work at the Engineering Workshop

Marchak, and Renovation of the Office room of DA and Staffs. Etc. were taken up from the Minor Work (Non-Plan) provisions. Details at Annexure m & iv.

**(ii) Storage & ware housing (Capital):**

Providing of External water supply to Agriculture Office at Pentok, Mangan was entrusted to PHE Department and the fund was transferred to PHED. Renovation of Agro-Service Centre, Mazitar Face-Lifting of Soil Testing Lab, ICAR complex along with renovation of class IV quarter at Daramdin and Seed & Fertilizer store at Namthang was also taken up.

**(iii) WORKS UNDER CAPITAL OUTLAYS:**

Extension of one floor at the Agriculture Office at Pentok, Mangs. Repair of Central pendam VLW center. Repair of Irrigation channel for Water supply to Mangan Agr. Farm etc. are the main works completed under Capital Outlays.

**(iv) WORKS UNDER BADP PROGRAMME.**

The work of (i) Providing Barbed Wire Fencing (ii) providing Water Supply (iii) Construction of Approach Road (iv) construction of OCfootpath at VLW center at Lachen VLW Centre were executed under BADP Programm.

The list of different construction/Repair works undertaken during 2004-05 is placed at ANNEXURE VL

**VIII MACRO MANAGEMENT:**

**(i)Infrastructure for Seed:** Establishment of one Mini Seed Processing Unit with facilities for Grading. Drying and Storing in Cool Chamber has been approved and under progress in Jbrethang, South Sikkim. This Unit is meant for the Processing of the Certified Seeds grown in West and South District. Provision for generator and other essential accessories are included and the whole project has been taken up on Turn key agreement, in phased manner. The Project is

expected to be ready within three months time and the spill over expenditure is to be met up from the Current Financial Year's allotment of funds.

**(ii) Seed Drier, Grader, Proccession and packaging: Seed Driers,**

Grader with extra Sieves and accessories and generator (Kirloskar) were procured for the Seed Processing Unit at Mazitar Farm in East Sikkim covering Seed Production Programme of the Department. The Seed Processing unit is operational since last year.

**(iii) Popularization of Improved tools and Implements :** Under the Popularization of tools and Implements programme, testing of the Improved Tools and Implements as shown in annexure IV are to be taken up widely in the Government Farms of all the Districts of North. East. South. West. Due to hilly terrain and other topographical constrains, identification of suitable Improved Tools and Implements for testing and trials is given priority. Zero tillage Drill along with other improved tools & Implements developed by the various Research Organizations are ordered for procurement through SIMFED.

**(iv) Training of Rural Artisans on Manufacturing of Seed Bins and Agricultural Implements :** This Programme has created an awareness among the unemployed Youths for setting up of Private Entrepreneurship and is proposed continuation in next year. The department is getting very good response for this short-term training programme especially from the unemployed Youths.

**(v) Popularization of Seed Bins and other Storage:** This Programme is found effective for storing up various farm produces. And for popularization among the progressive farmers the distribution of the Seed Bins of 50 kgs. Capacity. (415 Nos.) and 100 kgs. Capacity (80 Nos.) are taken up for demonstration and use in the Government Farm. For popularization of Seed Bins under this programme are also to be sold to farmers on 25% subsidy rate basis.

**(vi) Compost Pits & Vermi-compost:** Construction of Vermi compost (new concept) & compost pits were taken up at different agricultural farms in the state in consultation and as per the requirement & specification provided by Manures & Fertilizers section. The Engineering section helped out in designing & framing of estimates as per the specification provided. The work was undertaken jointly by respective farm in-Charge. and monitored by M&F section.

The details of works under macro management is placed at ANNEXURE-VII

**LIST OF COMMITTED WORKS TO BE CARRIED OVER TO 2005-06**

S.no.	Name of Work	Total Estimated Cost (Rs.)	Remarks
1	Addition of 4 <sup>th</sup> floor to the Canteen Building near Krishi Bhavan complex'	8,45,000.00	Tendered and in process of awarding work order
2.	Repair of VLW quarter /Store./ Office at Thingling, West Sikkim	60,000.00	Work completed but due to paucity of fund. payment is carried over to 2005-06.
3.	Repair of Irrigation Channel at Pentok Mangan-IIIrd phase.		Two phases of work has already been completed with the last phase remaining. '

**Achievements:****1. SEED PROCESSING UNIT AT MAZITAR.**

One modern Seed processing unit with a cold storage facility of 20 MT capacity has been commissioned at Mazitar, and handed over to seed Section. This programme has been tied up with the certified Seed production Programme of the Department. Facility of Pre-cleaning, Grading, Drying and Safe storage in Cold Store with controlled humidity has been provided. This unit conforms to any other established modern Seed Processing Plant in India. The Unit consists of the following :

**1. COLD STORE WITH DEHUMIDIFIERS:** The cold storage with dehumidifiers is necessary to maintain the germination %age and viability of seeds over a long period of time. The temperature in the seed store is to be maintained at the range of 15°C to 20°C at all times. The Storage unit is so designed as to store the seeds in optimum Temperature and Relative Humidity. The relative humidity of Sikkim is very high (above 80% always), so the store is equipped with dehumidifiers so as to tackle the problems of high humidity in the region.. The cooling system and the dehumidifiers are fully automatic with auto cut facilities.

**2. Seed Dryer :** Being a high rainfall area with high RH. the seeds brought to the processing unit normally has a very high moisture percentage (usually above 20%), hence drying to a safe storage moisture content is very important. The drier provided in the unit has a capacity of 500Kgs per batch.

**3. Three Screen Grader -** The seeds brought from "the farmers have high percentage of impurities. They need to be pre-cleaned and graded for uniformity in quality, size etc. The Grader provided at the Seed Processing Unit at Mazitar has a capacity of 1MT per hour (based on wheat).

Besides that, a 63 Kva Generator for power back up has also been provided. Presently, Plant Breeder (Dy. Dir.) is Officer-in-Charge of the unit looking after its

operation & accounting of the unit. and an Agri. Engineer is looking after the maintenance aspects of the machineries & the storage unit

Seed Certification or production of Certified Seed is a legally sanctioned system for quality control of Seed Multiplication and Production. In Sikkim, normally the *Certified Seeds* are produced in registered Farmer's field and foundation seeds in Government Farms & Progressive Farmer's field. The seeds are then required to be graded, dried and stored in proper storage conditions over a period of time. Keeping this in mind, the **Engineering Section of Agriculture Department** was entrusted with establishing a Seed Processing Unit at Mazitar, which was duly completed and handed over to the Seed section in April'2004.

Sikkim state has a total 64.59 thousand hectare (apprx) of cultivable land for cereal crops. 6.71 thousand ha. for pulses, 9.95 thousand ha. for oilseeds and accordingly the seeds are to be procured every year. Previously the department was fully dependent on NSC/ SFCI and other Organisations for the seed requirement of the state. But now with the initiation of seed production programme & Commissioning of the Seed Processing Unit at Mazitar, the import requirement of seeds from outside source are already reducing. During 2004-05 itself, about 30 Tons of various seed were processed , stored & distributed to the fanners.

## **2. ESTABLISHMENT OF AGRO-SERVICE CENTRES IN RURAL AREAS.**

Under macro management, assistance are given to farmers for setting up of Agro-Service centers in rural areas by the **GOI**. One Rice Haulier, One Oil Expeller and one Wheat Grinder are provided in each unit. Out of a project costs of Rs.2.0 lakhs, the farmers contribution worth Rs.1.0 lakh was provided in terms of infrastructure development like construction of sheds, providing of 3-phase power line and installation of machines etc.

These setting up of Agro-service centers in rural areas has have very good results. During the selection of such beneficiaries, in consultation with local MLA's & District Agriculture Officers, preferences have been given to Progressive

farmers, unemployed people, widows etc. Even the location of the proposed unit has been taken into account, to maximise the benefit to the surrounding villages also. With the setting up of these units, the beneficiaries have been able to supplement their income substantially and the villagers in the surrounding areas have been benefited as now they no longer have to carry their meagre produces to long distance towns for milling/ processing etc. Some among the beneficiaries are :

**1. Mrs.Kumari Sharma, Tashiding, West Sikkim** : A widow with school going children, she is a strong willed lady and has a small shop at the outskirts of Tashiding Bazar and has no other source of income. After being given the Agro-service unit, she's been able to supplement her income by almost Rs. 1000.00 to Rs. 1500.00 per month on an average and is taking care of her Children's education. Gritty Lady she is, she has trained and runs & operates all the machine herself.

**2-Shree Gai Bdr.Rai, Namphok, South Sikkim:** A progressive farmer, he is supplementing his income as well as serving the surrounding villagers well as there are no agro-service centres nearby and previously the villagers had to travel to Sngtam to get their produce processed. He's even provided employment to a local boy whom he has trained in operating the machineries and pays Rs.500/- month for operating the machines in morning and evening shifts.

**3.Shree Roshan Sharma , Timburbong , West Sikkim** : An unemployed he earns his income from a small shop and his income is supplemented by the agro- service unit provided to him. He earn an average of Rs. 1500 to 1600 per month from the agro-service, and at one time has earned a record of Rs.4000.00 in a month. He's running the unit with a diesel generator set and is operational all the time. He has employed a local boy for operating the agro-service unit along with helping him in his small shop.

**ANNEXTURE -II****Details of the utilization of the raw materials for the manufacturing of agricultural tools & at the Engg. Workshop, Marchak.**

S.No.	Raw Materials	Qty Procured	Utilized	Balance in Stock
1	PG1 Sheet (24 Gauge)	90 Nos.	70 Nos.	20 Nos.
2	PGI Sheet (20 Gauge)	90 Nos.	75 Nos.	15 Nos.
3	M.S.Angle Iron (3" x 3") 8mm	50 Kgs.		50 Kgs.
4	M.S.Angle Iron (3" x 3") 6mm	50Kgs	6 Kgs.	44 Kgs.
5	M.S.Angle Iron (1" x 1") 3mm	50 Kgs.	40 Kgs.	10 Kgs.
6	G.I.Pipe (15mm)	10 Kgs.		10 Kgs.
7	MS Sheet (1.6mm)	120 Kgs	60 Kgs.	60 Kgs.
8	MS Flat 2 " (6mm)	50Kgs	10 Kgs.	40 Kgs.
9	MS sheet (2mm)	50 Kgs	25 Kgs.	25 Kgs.
10	Plain Rod (12mm)	50Kgs	50 Kgs.	-
11	Ring Rod	50Kgs	25 Kgs.	25 Kgs.



**ANNEXURE III****List of Trainees for Training of Rural Artisans for fabrication of Seed Bins, Improved Tools & Implements.**

S.No.	Name of Trainee	Address	District
1.	Parkash Rai	Sumbuk	South
2.	Birendra Rai	Sumbuk	South
3.	Lok Psd. Rai.	Sumbuk	South
4.	Ashim Rai	Sumbuk	South
5.	Chatera Bdr. Biswakarma	Mangzing	South
6.	Radha Krh. Dahal	L. Neha	South
7.	Teju Sundass	Lingmo	South
8.	Rup Narayan Sharma	Lingi	South
9.	Tularam Biswakarma	Chalamthang	South
10.	Bikash Biswakarma	Chalamthang	South
11.	Dev. P. Thapa	Shalghari	South
12.	Bir Bdr. Rai	Shalghari	South
13.	Chabilal Mangar	Shalgari	South
14.	Puma Bdr. Biswakarma	Shalgari	South
15.	Kumar Shankar	Chalamthang	South
16.	Dhan Bdr. Kami	Yang Yang	South
17.	Lal Bdr. Gurung	Yangyang	South

18.	Bishnu Basnett	Sripatam	South
19.	Ram Pokhral	Sripatam	South
20.	Uday Biswakarma	Kewzing	South
21.	Lal Bdr. Khati	Kewzing	South
22.	Sancha Raj Rai	Namphing	South
23.	Suk Bdr. Rai	Bermiok	South
24.	Karma Tamang	Bermoik	South
25.	Lal Bdr. Kami	Lingmo	South
26.	Amrit Lohar	Sangmo	South
27.	Digbir Kami	Sangmo	South
28.	Kamal Rasaily	Tarku	South
29.	Deepak Kami	Temi	South
30.	Punya Psd. Adhikari	Borong	South
31.	Sun Bdr. Sharma	Ralang	South
32.	Subash Lohar	Raddhu Khandu	West
33.	Ashok Kr. Shankar	Mokrong	West
34.	Jiwan Kr. Shankar	Mokrong	West
35.	Sandip Biswakarma	Chongrang	West
36.	Manbir Rasaily	Dodok	West
37.	Biren Bishwakarma	Chongrong	West

38.	Amber Sing Rasaily	Dodok	West
39.	Suray Chataney	Tharpu	West
40.	Ganga Pd. Khati	Soreng	West
41.	Durga Das Gogmer	Sanga Dorjee	West
42.	Chandra Bdr. Lohar	Chongrang	West
43.	Gedendra Singh	Dodok	West
44.	Man Singh Khati	Rodho-Khondu	West
45.	Bhim Bdr. Rasaily	Rodho-Khondu	West
46.	Kama Shankar	Sang Dorjee	West
47.	Sher Bdr. Kami	Okharay	West
48.	Sanna Bdr. Kami	Okharay	West
49.	Kumar Kami	Siktam - Tilepur	West
50.	Dil Bdr. Kami	Upper Fambong	West
51.	Gambo Kami	Upper Fambong	West
52.	Ram Bdr. Kami	Sang Dorjee	West
53.	Puran Bdr. Kami	Sang Dorjee	West
54.	Sher Bdr. Rasaily	Lower Fambong	West
55.	Kama Bdr. Rasaily	Lower Fambong	West
56.	Man Bdr. Kami	Buria Khop	West
57.	Puma Bdr. Khati	Buria Khop	West

58.	Bhim Bdr. Kami	Karthok	West
59.	Tirtha Lal Kami	Karthok	West
60.	Dilip Shankar	Tharpu	West
61.	Debu Shankar	Tharpu	West
62.	Dilip Kr. Rai	Chongey Centi	East
63.	Lakpa Sherpa	Dikling	East
64.	Sudhan Gurung	Pachey Khani	East
65.	Samir Gurung	Pachey Khani	East
67.	Bharati Dhungel	Padamchey	East
68.	Saran Das Shadu	Marchak	East
69.	Mani Raj Rai	Aho Yongtam	East
70.	Awrihang Subba	Aho Yongtam	East
71.	Denesh Subba	Aho Yongtam	East
72.	Bikash Baraily	Lingzey	East
73.	Ashok Subba	Aho Yongtam	East
74.	Tika Subba	Changey Shenti	East
75.	Surdhan Subba	Changey Shenti	East
76.	Phip Raj Subba	Aho Yongtam	East
77.	Arjun Chettri	Namli	East
78.	Bishnu Kr. Chettri	Marchak	East

79.	Krishna Kr. Chettri	Marchak	East
80.	Padam Chettri	Marchak	East
81.	Gajbri Chettri	Marchak	East
82.	Dil Kr.Subba	Upper Aho	East
83.	Rajesh Subba	Upper Aho	East
84.	Lal Bdr. Subba	Aho	East
85.	Tula Ram Rai	Assem Linzey	East
86.	Aita Bir Subba	Aho	East
87.	Suk Man Subba	Aho	East
88.	Augustine Rai	Assemlinzey	East
89.	Dhan Bdr. Rasaily	Chungey-Shenti	East
90.	Khangendra Subba	Aho	East
91.	Purna Bdr. Subba	Chongey-Shenti	East
92.	Saran Ruchal	Namli	East
93.	Guman Singh Ruchal	Namli	East
94.	Man Bdr. Chettri	Namli	East
95.	Raju Subba	Saramsa	East
96.	Yegya Niti Dhakal	Chemibotey	East
97.	Pardeep Baraily	C. Pendam	East
98.	Raju Sharma	Namli	East

99.	Nar Bdr. Dorjee	Namli	East
100.	Narath Lohar	Ranka	East
101.	Nim Tshring Lepcha	Burtuk	East
102.	Ramesh Lohar	L. Sichey	East
103.	Padam Rai	L. Sichey	East
104.	Som Kr. Rai	Lingzey	East
105.	Nirmal Rai	Lingzey	East
106.	Nurbu Tshring	Menrongong	East
107.	Bichung Lepcha	Malon	North
108.	Ugen Lepcha	Malon	North
109.	Ongyal Lepcha	Phamtam	North
110.	Dawa Zangpo Lepcha	Chawang	North
111.	Pezomg Lepcha	Chawang	North
112.	Ongyal Lepcha	Chawang	North
113.	Dawa Zangpo Lepcha	Chawang	North
114.	Gnow Lezor Lepcha	Malam	North
115.	Ugen Tshring Lepcha	Menrongong	North
116.	Lakpa Tshring Lepcha	Menrongong	North
117.	Nim Chwang Lepcha	Menrongong	North
118.	Sonam Tshring Lepcha	Menrongong	North

119.	Pintso Lepcha	Malam	North
120.	Pema Sherap Lepcha	Manrongong	North
121.	Azing Lepcha	Manrongong	North
122.	Andu Lepcha	Phamtam	North
123.	Passang Lepcha	Manrongong	North
124.	Nordan Lepcha	Manrongong	North
125.	Ongchuk Lepcha	Manrongong	North
126.	Dupden Lepcha	Chawang	North
127.	Sang Tshring Lepcha	Manrongong	North
128.	Norzing Lepcha	Chawang	North
129.	Chewang Lepcha	Chawang	North
130.	Tensho Lepcha	Chawang	North
131.	Rapgyan Lepcha	Chawang	North

**ANNEXUREIV**

**List of Trainees for Training to NE Region Farm Machinery Training & Testing Institute, Biswanath Charialim Assam.**

S.No.	Name of Trainee	Father's Name
1	Deo Pd. Mangar	Mandhoj Mangar
2	Bir Bdr. Rai	Pancha Bdr. Rai
3	Chabilall Mangar	Nor Singh Mangar
4	Santa Bdr. Rai	Bom Bdr. Rai
5	Bhimraj Thapa	Dal Bir Thapa
6	Amber Bdr. Rai	Kazi Pd. Rai
7	Bhawani Pd. Pokhrel	Narendra Pd. Pokhrel
8	Santa Bdr. Mangar	Kama Bdr. Mangar
9	Padam Mangar	Kama Dass Mangar
10	Leela Kr. Jogi	Ram Lall Jogi
11	Agam Dass Mangar	Dal Bdr. Mangar
12	Santa Kr. Tamang	Lt. Wangyal Tamang
13	Mingma Tempa Sherpa	Lapchen Sherpa
14	Dhanj it Rai	Jit Bdr. Rai
15	Saran Kr. Sadhu	Hari Das Sadhu
16	Dawa Sonam Sherpa	Passang Sherpa



17	Salim Rai	P.B.Rai
18	Mani Raj Rai	Motilal Rai
19	Ghansin Rai	Bir Vdr. Rai
20	Bal Krishna Thapa	Motilal Thapa
21	Santa Bir Tamang	
22	Lal Bdr. Tamang	Ashman Tamang

## ANNEXURE V.

**LIST OF BENEFICIARIES FOR AGRO-SERVICE CENTRE f2004-05)**

S.No.	Name of Beneficiaries	Address	Remarks
1	Gaj Bdr.Rai	Namphok, South Sikkim	Operational
2	Bimla Sapkota	Chota Singtam	Operational
3	Kunzang Tamang	Boomtar, South	Withdrew
4	Karma Sonam Chopel	Tumlong, North	Withdrew
5	Prabhat Rai	Bikmat, South	Newly Alloted in place of sl.no.3&4
6	Harka Bdr.Tamang	Namphing, South	

## **REPAIR AND MAINTENANCE OF WORKS (2004-05)**

<b><u>S.No</u></b>	<b><u>Particulars</u></b>	<b><u>Amount</u></b>
--------------------	---------------------------	----------------------

### **(i) SOUTH DISTRICT**

1 .	Repair of seed cum Fertilizers Godown, Namthang	RS.50,000.00
-----	---	--------------

### **(ii) WEST DISTRICT**

1.	Repair of class IV Quarter at Daramdin agri Farm	Rs.50,000.00
2.	Repair of VLW Quarter/ Store/ Office/ at Thimling West	Rs.60,000.00
3.	Repair of VLW Quarter / Store/ Office/ at Ribdi.	Rs.20,000.00

### **(iii) EAST DISTRICT**

1.	Repair of VLW centre at Central Pandam	Rs.1,00,000.00
2.	Repair of Soil Testing Lab, Tadong	Rs. 18,000.00
3.	Repair of VLW centre at Lower Smdong	Rs. 3,000.00
4.	Repair of ADA's Office (Ext & Training )	Rs. 9,954.00

5. Repair of ADA's Office (N/E)	Rs. 41,694.00
6. Repair of JDA's Office(ICAR complex)	Rs. 20,594.00
7. Painting/ Distempering/ creation of accts. Staff room(IPM lab)	Rs. 42,435.00
8. Repair of Dirver's waiting room	Rs. 38,834.00
9. Repair of Agro-Service centre, Mazitar	
10.Repair of soil Testoining Lab, Tadong	Rs. 74,299.00
11.Repair of Draftary, Krishi Bhavan	Rs. 95,030.00
12.Repair of class II quarter at Marchak	Rs. 97,755.00
13.Repair of JDA;s room near ladies toilet	Rs. 9,787.00
14.Supplementary barbed wire fencing at Chujachen Agri Farm.	Rs. 1,81,793.00
15.Construction of File shelves for Engeneering cell.	Rs. 29,964.00
16.Bio Fertilizers Production Unit.	Rs.28,21,976.00

**(iii) NORTH DISTRICT**

1. Repair Irrigation chennel at Pentok, Magan	Rs. 3,55,000.00
2. Providing External water supply to Agriculture office at Pentok, Magan.	Rs. 75,700.00
3. Addition of one floor at Agri .office at Pentok, Magan	Rs. 5,30,383.00
4. Various works at Lachen VLW centre : <b>(2435-badp)</b>	
i. Barbed WIRE fencing	
ii. C.C. Foot path	

iii. Approach road

Rs. 9,50,383.00

iv. Water Supply

ANNEXTURE

S.No	Tools Fabricated	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Total
1	Seed Bins (50 Kgs capacity)		6	10			12	16		11	5			60nos
2	Feeding Trough	4	6	9	-	-	-	5	-	7	3	6	-	40 nos
3	Watering Can	-	6	2	-	-	-	-	-	-	-	-	-	8 nos
4	Spade	-	-	-	-	7	-	-	-	-	-	-	-	2 nos
5	Garden Rake	-	-	13	25	12	-	-	8	7	-	10	-	75 nos
6	Maize Sheller	10	10	50	30	20	10	10	20	10	20	10	-	200 nos
7 -	Fork/ Spade	-	-	-	-	-	10	5	-	-	-	5	-	20 nos
8	Kuttey	-	-	-	5	7	5	-	5	3	4	1	-	30 nos

9	Karai	-	-	-	-	6	-	-	4	-	!	-	-	10 nos
		14	28	84	60	47	37	36	37	38	32	32	* *	

**Detailed list of Agricultural Tools & Equipments at the Engg. Workshop Marchak.**

\*\* During March 2005, all the workers in the Workshop were engaged for Training of Rural Artisans, hence no tools were fabricated.

**MACROMANAGEMENT 2004-2005**

**ANNEXURE VII**

Sl. No	Programme/Component	Unit	Rate/ Unit (Rs.in lakhs)	TARGET		Achievement		North	East	South	West
				Phy.	Fin.	Phy	Fin				
4	SEEDS										
(a)	Infrastructure for Seed		48,00	1	25.00	1	18.00			1	-
i.	1.Establishment of Seed Processing Unit at Jorethang, South Sikkim										
(iii)	Seed Drier, grader, processing & Packaging		8.00	2	16.00	3	15.35	-	1	-	-
9	AGRICULTURE ENGINEERING										
i)	Popularization of Improved tools and Implements										
	(a) Testing of additional Implements & Accessories for	Set	0.2419	12	2.903	10	2.616	1	5	3	3

ii)	Training of rural artisans on manufacture of Seed Bins and Agriculture Implements	No.	.01	160	1.60	130	1.00	30	30	30	40
								Annual Report 2004 - 05			

	Power Tiller, and Carriage etc.										
	(b) Animal Drawn S.S.Iron plough	No.	0.006	760	4.939	600	4.45	100	160	250	250
	(c) Tubular Hand Maize Sheller	No.	0.0011	300	0.36	250	0.33	50	75	75	100
	(d) Animal Drawn Zero Tillage . Fertilizer Seed Drill.	No.	0.6882	20	1.377	20	1.116	3	6	5	6
	(e) Testing of Wheel hand Hoe, Pant Dhamala, Kund for Hill Plough, Nasoora for hill plough, Danala, Hill Yoke.	Set	0.05	5	0.25	5	0.25	1	1	1	2

(iii)	Popularization of Seed Bins and oilier storage .	No.	.01	310	3.10	400 (i) 50kgs - 200 NOS.  (ii)50kg s(P) – 200 nos	3.11	100	125	125	145
-------	--	-----	-----	-----	------	--	------	-----	-----	-----	-----

**N.B:** Animal drawn S.S.Plough-50pcs and few pcs. Of other improved implements arc kept at Marchak farm for arranged demonstration,



4. (a) i. **Infrastructure for Seed:** Establishment of one Mini Seed Processing Unit with facilities for Grading, Drying and Storing in Cool Chamber has been approved and under progress in Jorethang, South Sikkim. This Unit is meant for the Processing of the Certified Seeds grown in West and South District. Provision for generator and other essential accessories are included and the whole project has been taken up on Turn key agreement, in phased manner. During the financial year under report, a sum of Rs. 18.00 lakhs has been drawn as advance against a Bank Guaranty of 20.00 lakhs of Rupees.

The Project is expected to be ready within three months time and the spill over expenditure is to be met up from the Current Financial Year's allotment funds.

4. (a) iii. **Seed Drier, Grader, Processing and Packaging :** One Seed Drier (500K.gs.), Grader ( 3 Screen) and Generator ( Kirloskar 63 KVA) for a similar type of Seed Processing Unit Established at Mazitar in East Sikkim covering North and East District has been procured. The Seed Processing Unit operational since last year.

9. i. **Popularization of Improved tools and Implements:** Under the popularization of tools and Implements programme, testing of the Improved Tools and Implements as shown vide(a) to (e) of the action Plan of Macro Management has been taken up widely in the Government Farms of all the Districts of North, East, South, West. Due to hilly terrain and other Topographical constrains, identification of suitable Improved Tools and Implements for testing and trials was given on priority. Zero Tillage Drill along with other Implements developed by the various Research Organizations have been brought for testing and only advance payments have been drawn. •

9. ii. **Training of Rural Artisans on Manufacturing of Seed Bins and Agricultural Implements:** This Programme has created an awareness among the unemployed Youths for setting up of Private Entrepreneurship and is proposed for continuation in next year. The department is getting very good response for this short term training programme specially from the unemployed Youths.

9. iii. **Popularization of Seed Bins and other Storage:** This Programme is found effective for storing up various farm produces. And for popularization among the

progressive farmers, the distribution of the Seed Bins of 50kgs. Capacity ( 415Nos.) and 100 Kgs. Capacity ( 80 Nos.) are taken up with demonstration.

**PROGRESS REPORT OF SOIL & WATER CONSERVATION**

**SECTION 2004 - 2005.**

**MACRO-MANAGEMENT IN AGRICULTURE (100 % CSS)**

**A. NATURAL RESOURCE MANAGEMENT.**

1, National Watershed Development Project for Rainfed Areas (NWDPPRA). The National Watershed Development Project for Rainfed Areas ("NWDPPRA) is a major CSS programme being implemented by the Department. It is an ongoing scheme with the objective for developing sustainable agriculture through integrated farming system emphasizing in people's active participation.

The programme encompasses divergent activities under management and development component, training, community organization and capacity building are the major activities. Under development component, natural resource management, farm production system (for landowning families) and livelihood support system (for landless families) are the major component. Under natural resource management, land development, plantation of fast growing tree species, dry land horticulture, bamboo plantation and drainage line treatment are the activities. Under farm production system, establishment of nurseries, crop production-cum-demonstration, cash crop plantation, testing & demonstration of new technology, adoption of proven technology, etc. are the activities.

Under livelihood support system, service sector such as carpentry.. black smithy, basket making, broom binding, mushroom cultivation, etc are the activities taken up. Besides this, poultry, piggery, bee keeping, goatery, etc. have also been taken up under livestock management.

**The objectives of this programme are:**

1. Insitu moisture conservation, development and sustainable management of natural and social resources including their use.

2. Enhancement of agriculture productivity and production in a sustainable manner.
3. Restoration of ecological balance in the degraded and fragile rain - fed ecosystem by greening these areas through appropriate mix of trees, shrubs and grasses.
4. Reduction in regional disparity between irrigated and rainfed areas.
5. Creation of sustained farming system and generation of employment opportunities
2. for the rural community including the landless.
6. Equity for resource poor and empowerment of women. During the year financial 2004 - 2005, the physical target under this programme was 4500 Ha but the achievement is 4416 Ha and the expenditure incurred is to the tune of rupees 465.16 lakhs.

## **2. Bench Terracing under Land Development programme in agricultural land.**

This is one of the mechanical measures adopted in the state. The construction of bench terraces helps to prevent runoff with high velocity, soil loss and retention of moisture, resources, manures, fertilizers and facilitates the application of irrigation if available.

The bench terraces are constructed in the state up-to the slope of 50 %. This programme helps to bring additional area under cultivation which under proper agronomic practices is expected to contribute towards crop production and productivity of the area.

The department has implemented land development programme in a compact area in the villages. In this programme farmers are provided with Government subsidy of 25 %, i.e. approximately Rs. 10000/- per hectare. During this financial year 2004 - 2005, the Soil & Water Conservation section has covered an area of 2950.81 acres of land under this programme and the expenditure incurred is to the tune of rupees 1,17,94.159.00. The impact of this programme has been very satisfactory as the land for cultivation has increased and cultureable fallow land has also been turned into arable land.

### **3. Water Harvesting from surface run-off perennial water source including roof water by collecting in tanks.**

The main objective of this programme is to conserve water through surface run-off/ roof rain water / perennial sources, for life saving irrigation and drinking water for human being and livestock during lean periods.

Under this programme , the department has constructed 483 Nos. of Water Harvesting Structures of 10000 ltrs. Storage capacity all over the state benefiting 483 Nos. of farming community at a total expenditure to the tune of rupees 4444566.00 as a 25 % subsidy amount I,e, @ . Rs. 9200/- per beneficiary. The tanks are constructed with the farmer's participation.

The impact of construction of such tanks is to provide irrigation to vegetable and fruit crops in a limited area so that the production of such crops increases thereby raising the income of the farming community.

#### **4. Training programme.**

##### **a. Field officers.**

The different training programme were organized on technical, social and management aspect to the officers of Soil & Water Conservation section at MANAGE. NIRD, SIRD, ICAR. Marchak, etc. The total numbers of participants were 95.

##### **b. Farmers.**

The objective of the programme is to disseminate the latest technology to the farmers in the remotest part of the state. The total of 4226 numbers of farmers was trained by the experts of the department on courses like, soil conservation through bench terracing and soil reclamation.

**5. Organic Manure / Biomix, under land development programme.**

The organic manure (biomix ) which improves physical, chemical and biological properties of soil and ultimately makes the soil more productive. It is rich in nitrogen, phosphorus and potassium, micro-nutrients, maintains organic status of soil and protects the top soil from erosion. During the year 2004 - 2005, 128 M.T. of biomix were distributed benefiting 190 farmers of the state.

**B. STATE PLAN**

**6. State nursery (Soil Conservation).**

The Department of Soil & Water Conservation has a total of 6 (six) numbers of state nurseries in the state. These nurseries are producing large numbers of fodder grasses, fodder trees, fuel and timber trees and tea saplings needed for implementation of biological conservation measures in areas having more than 50 % slope and land-slide /land slip areas. During the year 2004 - 2005. these nurseries were able to produce 452400 numbers of seedlings and of these, 266326 numbers of seedlings has been distributed to the beneficiaries under various programmes.

**C. SPECIAL PROGRAMME.****7. Natural Calamity Relief programme.**

Sikkim being a hilly state having more than 95 % of land above 30 % slope and receiving highly erratic and heavy rainfall specially during the rainy season I,e, June to August./ During the year 2004 - 2005, very heavy rainfall occurred in certain places during the month of July to September which had extensively damaged the agricultural land as well as the crops in the rural areas thereby seriously affecting the economy of the rural community. Around 382 Ha of land had been damaged by landslides for which a sum of rupees 40 lakhs was provided by the Land Revenue & Disaster Management Department for carrying out different relief measures like land development, biological conservation and drainage line treatment works and the Soil & Water Conservation Section of the Department has implemented this programme in the farmers field of the affected farmers at a cost of rupees 39,90,866.00 covering 1261 numbers of beneficiaries. The cost norms for this programme was rupees 10000/ per hectare



**PROGRESS REPORT OF NRM SECTION, 2004 – 2005**

**BENCH TERRACING UNDER LAND DEVELOPMENT PROGRAMME**

**DISTRICT: EAST**

SL. No.	Constituency	1 Block/ Village	PHYSICAL (Acres)		FINANCIAL (Rupees)		No of Beneficiaries (Nos)
			Target	Achievement	Target	Achievement	
1	2	3	4	5	6	7	8
1	Central Pandani	Padamchey, Pachak, Samki Kaiyong Kali-Khola, Kama	125	122.76	500000	491030	165
		Bhasmey, Tindharey Jitlani	50	49.64	200000	198558	69
2	Rakdong Tintek	Raksey	50	49.69	200000	198779	74
		Patuk Kokoley	25	24.96	100000	99848	38
3	Kh.iiiiiclong	Budang Thangsing	50	49.64	200000	197772	64
		Thasa	25	24.32	100000	97271	25
4	Loosing Pacheykhau	Khongshi	25	24.89	100000	99577	36
		KadaiTitam	25	24.99	100000	99946	37
5	Pathing	Lingtam, Phadamchen	25	24.68	100000	98700	27
		Reekyap	25	24.66	100000	98635	34
6	Rhenock	Tareythang - Bering	50	50.08	200000	200308	100
		Taza	50	49.63	200000	198519	47

		Titireybotey	25	24.24	100000	96974	26
--	--	--------------	----	-------	--------	-------	----

1	2	3	4	5	6	7	8
.7	Assam Lingzey	Assam Lingzey	25	24.96	100000	99834	26
		Naitam Pabyuk	25	24.95	100000	99808	3d
8	Sang Martam	Chuja Namrang	25	24.72	100000	98887	36
		Tshalamthang	25	24.97	100000	99885	50
		Beyang	25	24.22	100000	96863	30
9	Rumtek	Tempyang Mindu	25	22.74	100000	90944	37
		Lingdum	25	23.51	100000	94037	18
10	Regu	South Regu	25	24.59	100000	98359	29
		Hatticherey- AmaiTilok	45	44.88	180000	179519	76
11	Ranka	Upper Luing	25	24.27	100000	97098	19
		Lower Barbing	25	24.94	100000	99764	25
12	Kabi Tingda	Navey; Sotak	50	49.70	200000	198782	56
	TOTAL =		895	882.43	358000 0	3530157	1190
Total Amount of Subsidy = Rs. 35,30,157 .00							

**DISTRICT: WEST**

SL. No.	Constituency	Block/ Village	PHYSICAL (Acres)		FINANCIAL (Rupees)		No of Beneficiaries Nos)
			Target	Achievement	Target	Achievement	
1	2	3	4	5	6	7	8
1	Yoksum	Lower Labing	25	24.64	100000	98560	30
		Tshong- Dubdi	60	59.97	240000	239887	47
2	Tashiding .	Pokharidara	25 .	25.67	100000	102704	70
		Middle Chongrang	60	60.02	240000	240105	81
3	Geyzing	Lower Toyong	25	23.88	100000	95559	56
		Langang & Omchung	60	50.32	240000	201310	131 .
4	Dentam	Upper Khandu	25	24.74	100000	98964	21
		Lower Mukrung	60	59.64	240000	238565	91
5	Bermiok	Ratomatay	25	24.70	100000	98802	36
		Bartbk	25	36.15	100000	144612	78
6	Rinchenpong	Bom- Reshi	25	24.80	100000	99218	61
		Sangadorjee	25	24.90	100000	99636	61
7	Chakung	Lower Seigang	25	30.42	100000	121686	80
		Mobong & Seigang	130	129.99	520000	519967	182
8	Soreng	Karthok	25	23.51	100000	94027	81
		Redang	50	49.12	200000	196468	72
		Buriakllop	60	59.98	240000	239946	218
9	Daramdin	Salangdang & L. Okhray	25	20.92	100000	83704	51

		Tikpur	60	59.95	240000	239821	180
		<b>TOTAL =</b>	<b>815</b>	<b>813.38</b>	<b>3260000</b>	<b>3249040</b>	<b>1627</b>
		<b>Total subsidy amount Rs. 32,49,040.00</b>					

## DISTRICT : SOUTH

					FINANCIAL (Rupees)		
SL. No.	Constituency	Block/ Village	Target	Achievement 5	Target 6	Achievement 7	No of Beneticiaries (Nos) 8
1	3 bamthang	3.00 Pakchey/	4 50 50	50 50	399840	399840	129
		Lower 1'lialidara	60	. 60	241240 239960 99960	241240 239960 99960C	60 83 28
		Lower Kamrang	60	60			
2	Wok T.	Ganfila/ Sangmoo TinKinoo	25 40	25 40 25	160000 99920 239560	160000 99920 239560	80 35 42
3	Jorethang	Lower Mikhola	25				
			60	60			
		Lower Kopchey	40	40	159800 99989	159800 99989	47 23
4	Melli	Sunihuk -Suntalay Sadam Suntalay	25 40	25 40	159920	159920	44
5	Temi-Tarku	Burul	25	25	99905 239600	99905 239600	20 40
		Berniok/ Sangden	60	60			

		Lower Tingley	60	60	239840 99980	239840 9998C	27 18
6	Ratey-pani	Naei	25 60	25 60	238666	238666	40
		Passi	45	45	179760 99859	179760 9985	30 23
7	Ralang Khamdong	Lower Dethang PhamtaiTi/ Borong Manzing	25 ' 60 60 40	25 60 60 40	479794 159979	479794 159979	105 40
		TOTAL	935	935	37,37,5 72		914
Total subsidy amount =Rs.37,37,572.00							

## DISTRICT: NORTH

SL. No	Constituency	Block/Village	PHYSICAL (Acres)		FINANCIAL (Rupees)		No of Beneficiaries (Nos)	
			Target	Achievement	Target	Achievement		
1	2	3	4	5	6	7	8	
1	Kabi- Tingda	Labi- Sordong	25.00	25.00	100000	100000	40	
2	Lachen- Mangshila	Lachung	85.00	85.00	340000	340000	90	
		Namok	25.00	25.00	100000	100000	51	
3	Dzongu	Sopholiching	60.00	60.00	240000	240000	37	
		Shipgyar	75.00	75.00	300000	300000	41	
		Salim Pakel	50.00	50.00	200000	200000	40	
			320.00	320.00	1277390		299 •	
			Total Amount of Subsidy = Rs. 1277390					

## SUMMARY:

Sl. No	District	Area Covered	Subsidy/Amount	Nos. of Beneficiaries
1	South	935.00	(Rs.) 37,37,572.00	
				914
2	East	882.43	35,30,157.00	1190
3	West	813.38	32,49,040.00	1627
4	North	320.00	12,77,390.00	299
	Total	2950.81	1,17,94159.00	4030



## WATER HARVESTING FROM SURFACE RUN - OFF/ PERENNIAL WATER / ROOF WATER

### DISTRICT: WEST

SL. No.	Constituency	Block/ Village	PHYSICAL (Nos.)		FINANCIAL (Rupees)		No of Beneficiaries (Nos)
			Target	Achievement	Target	Achievement	
1	2	3	4	5	6	7	8
1	Yoksuni	Tathang & Singang	4	4	36808	36808	4
		Gerethang	3	3	27606	27606	3
		Thingling, Darap & Singing	5	5	46010	46010	5
2	Tashiding	Bhaluthang & Tashiding	4	4	36808	36808	4
		Arithang & Chongrang	3	3	27606	27606	3
		Lower & Middle Chongrang & Arithang	5	5	46010	46010	5
3	Geyzing	Lungwa Lingchom & Lungzik Middle Geyzing, Parbok Ari. Oinchung & Middle gaon, Geyzing	4	4	36808	36808	4
			3	3	27606	27606	3
			5	5	46010	46010	5
4	Deitam	Bega	4	4	36808	36808	4
		U & L Mangmo & Bongten	3	3	27606	27606	3
		Mukrung Maiigmu, Dentam	5	5	46010	46010	5
5	Bermiok	Chingthang, Ber'ok & Meyong	4	4	36808	36808	4
		Bermiok & Rathang-Martam	3	3	27606	27606	3

		Chinthang, Meyong & Yangsum	5	5	46010	46010	5
6	Rilichenpoiig	Chuchen & Takuthang	4	4	36808	36808	4
		Takuthang & Chuchen	3	3	27606	27606	3
		Zee) & Sangadorjee	5	5	46010	46010	5
7	Cliiikuiig	Chota Samdong, Mazua	4	4	36808	36808	4
		Berbolay, Raigaon & Reshi	3	3	27606	27606	3

	Chakung	Chumbung, Chakung, Zoom Gelling Samsing & Kamling Suddung	25	25	230050	230050	25
8	Daramdin	Salangdang, Beyong & Tikpur	5	5	36808	36808	4
		Thumbung, Salangdang	4	4	27606	27606	3
		Rumbuk	3	3	46010	46010	5
9	Soreng	Lungthang, Tharpu, Malbasay	4	4	46010	46010	4
		Timburbong, Gairigaon	3	3	36808	36808	3
		Lungthang, tharpu Malbasay	10	10	46010	46010	10
		TOTAL =	133	133	2033866	2033S66	133
			<b>Total subsidy amount = Rs. 12,23,866.00</b>				

## DISTRICT: SOUTH

SL. No.	Constituency	Block/ Village	PHYSICAL (Nos.)		FINANCIAL (Rupees)		Nu ol' Bfieliciaries (Nos)
			Target	Achievement	Target	Achievement	
1	Daintliang	Bul, Chamchey, Rong, Kitam, Sata,	34	34	3,12,868	3,128,68	34
2	Wok	Simkharka	10	10	92020	92020	10
3	Jorethang	Lower Kitam, Goin, Upper Mikhola	23	23	2,11,646	2,11,646	23
4	Melli	Turuk, Rainabong, Mcllidara Sumbuk	28	28	2,57,656	2,57,656	28
5	Temi - Tarku	Passi (Bermiok), Clialamlhang, Thangsing, Dalep. Tokal	26	26	2,39,252	2,39,252	26
6	Ratey- pan!	Turung, Namthang, Bimbong, Turung, Namlhang, Bimbong, Namthang Bimbong.	23	23	2,11,646	2,11,646	. 23
7	Ralong	Ralong	18	18	1,65,636	1,65,636	18
8	Khaildoilg	Satam, Yangang /Salam	1"	10	9,20,20	9,20,20	10
		TOTAL =	172	172	15,82,744	15,82,744	172
Total subsidy amount = Rs. 15,82,744.00							

## DISTRICT: EAST

SL. No.	Constituency	Block/Village	Target	Achievement	Target	Achievement	No of Beneficiaries (Nos)
1	Central Pandam	Padamchey, Damlakha, Bhasmay, Teendharey, Pachak, Kameray, Sumin Lingzey, Central Pandam.	27	27	2,48,454	2,48,454	27
2	Rhenock	Taza, Lower Biring, Kaputhang, Reshi, Linkey, Dugalakha, Challsey Mulukey	13	13	1,19,626	1,19,626	13
3	Loosing Pacheykhani	Lossing, Khongsi, Kartok, Namchey- bong, Bangthang, Nayabusly, Kilgolai, Dikling Rorathang, Rorathang, Pacheykhani ,	14	14	1,28,828	1,28,828	14
4 <sup>11</sup> ,	Pathing	Thekabong, Samsing, Changey Senli. Taksang Amha, Riwa Parakha. Ronggeek- 7, Lower Thangchrn Lingzey - 2, Upper Burtuk,	11	11	1,01,222	1,01,222	-
S'	Assam Lingzey	Naitam, Upper Syari, Nandok, Assam- Lingzcy.	11	11	1,01,222	1,01,222	11
6i"	Regu	Chandaney, Dalapchen, Khamdong, Chujachcn, Upper Khamdong.	11	11	1,01,222	1,01,222	11
7	Ranka	Lower Ryrhinp Sanoto'''''' Parbing	11	11	1,01,222	1,01,222	11
8	Khamdong	Thasa, Ralap Makha, Dung-Dung	11	11	1,01,222	1,01,222	11
9	Rumtek	Sajong, Kayalhang, Lingdum, Khubi- thang	11	11	1,01,222	1,01,222	11

		Samsang Chenzey					
10	Sang-Martani	Chisopani, Buruug, Namrang, Dochum Chalamthang.	11	11	1,01,222	1,01,222	11
11	Rakdong Tintek	Kokala, Tumin, Lower Samdong, Tiniek Kambal	11 .	11	1,01,222	1,01,222	11
		TOTAL =	142	142	13,06,684	13,06,684	142
Total.subsidy amount == Rs. 13,06,684							

**DISTRICT: NORTH**

SL. No.	Constituency	Block/ Village	PHYSICAL (Nos)		FINANCIAL (Rupees)		No of Beneficiaries (Nos)
			Target	Achievement	Target	Achievement	
1	Kabi-Tingda	Tinda, Rongpa, Rongong, Phodong, Labi, Bern.	12	12	110424	110424	12
• 2	Lachen - Mangshila	Mangshila, Jhusing'	12	12	110424	110424	12
3	Dzongu	Shipgyar, Salim Pakel	12	12	110424	110424	12
	"1. ...	TOTAL =	36	36	331272	331272	36
		; i Total subsidy amount = Rs. 3,31,272.00					

**SUMMARY**

Sl.No	District	Capacity (Ltrs)	Nos. of Tank Constructed	Subsidy Amount (Rs.)	No. of Beneficiaries
1	South	10,000	172	15,82,744.00	172
2	East	10,000	142	13,06,684.00	142
3	West	10,000	133	12,23,866.00	133
4	North	10,000	36	3,31,272.00	36
TOTAL			483	44,44,566.00	483

### TRAINING PROGRAMME UNDER NWD PRA

Sl.No.	Name of Training Programme	Date	Duration of Course (Days)	Course	Category of Trainees	No. of participants	Place of Training	
1	Technical	24-26th June 2004	3 Days	1. Vermiculture-composting & its Demonstration 2. Integrated W/S Management 3. Surface Water Harvesting	WDO, Dy. Director/PIA, JDA/DNA and Addl. Director	31	SIRD Karfectar	
2	Technical	24-26th June 2004	3 Days	1. Drainage Line treatment 2. Roof water Harvesting	do	31	do	32 Eash/N
3	technical	28th June 2004	1 Day	1. Orgaining Farming	Farmers	1600	Watershed Area	
4	Social Aspect	16-17th August 2004	2 Days	Mushroom Cultivation	SHG	27	Marchak	H c p Ti Df
				1.ChubaKholaW/S			••	
				2. Chewribotey W/W ;				
5	Technical	23-24th August, 2004	2 Days	Orientation course on Watershed under NWD PRA,	Director, DNA, PIA & WDO's ,	17	ICAR complex Tadong	

				programme				
--	--	--	--	-----------	--	--	--	--

S.No.	Name of Training Programme		Duration of Course (Days)	Course	Category of Trainees	No. of participants	Place of Training	Remark;
1	2	3	4	5	6	7	8	9
6	Social Aspect	23-24th August, 2004	2 Days	Mushroom Production	SHG	27	Marehak	1. Dhamela y Khola Watersh ed
								2. Ralang Khola
								3. Donak Khc Watersh ed
7	Management	6-11th September, 2004	6 Days	Training of trainess on participatory washed management under NWDPR	Director, DNA, PIA & WDOs	7	MANAG E Hyderab ad	
8	Management	13-18th September 2004	6 Days	Participatory watershed management with focus on Hariyalli	WDOs	2	NIRD Guwahat .i	
9	Management	8-28th September, 2004	21 Days	Watershed Development Management	PIA	1	ICAR Barapani Meghaly a	
10	Management	4-9th October,	6 Days	Management	WDOs	6	do	



		2004						
11	Management	21-16th February, 2005	6 Days	Participatory watershed Development	PIA & WDO	2	MANAG E Hyderab ad	

### FARMERS TRAINING PROGRAMME

Sl.No.	District	ACHIEVEMENT		Nos. of Beneficiaries	Remarks	
		Physical	Financial			
1	SOUTH	30	12,000.00	1693	Soil Conservation	
					Soil Reclamation	
					Bench Terracing	
					Natrual resource etc.	
2	EAST	18	12,000.00	1163	Bench Terracing	
					303	EM Technology
						99
3	WEST	9	12,000.00	908	Bench Terracing	
4	NORTH	6	4,000.00	60	Bench Terracing	
	TOTAL	63	52000	4226		

## DISTRIBUTION OF ORGANIC MANURE (BIO-MIX) UNDER LAND DEVELOPMENT

### PROGRAMME

Sl.N	District	Quantity distributed	No. of	Remarks
0.		(MT)	Benefeciaries	
1	South	40	23	Distributed to Dethang,
				Chamchey Damthang,
				Lower & Upper Jawbari
2	East	38	67	Distributed to Center Pandam,
				Rhenock Lassing
				Pacheykhani, Regu,
				Khamdong, Sang-Martam
3	West	35	65	Distributed to langang,
				Toyong, Ridang,
				Buriakhop, Tikpur.
4	North	15	35	Distributed to Sipgyar,
				Sapo, Lachung.
	TOTAL	128	190	-

^

## GOVERNMENT NURSERY

Sl.No	Name of State Nurseries	Type of Seedlings	No. of Seedlings Produced	No. of Seedlings Distributed	Balance in Nursery (Nos)
1	Nandugoan	A. Timber Tree			
		i) Panisaj	6642	6278	364
	Area 0.75 Ha.	ii) Teak	364	364	0
		iii) Cheakrasay	157	157.	0
		iv) Lapshi	281	281	0
		v) Ritha	150	150	0
		vi) Lampatay	2571	2183	388
		B. Fodder Tree			
		i) Nevara	5382	5382	0
		ii) Bahar	447	447	0
		iii) Taki	875	875	0
		iv) Kimbu	92	92	0
		C. Fodder Grass	21385	16000	5385
		D. Fruit Plants			
		i) Jack Fruit	161	161	0

		ii) Darim	121	121	0
		iii) Guava	535	535	0
		iv) passion Fruits	21734	2550	19184
		E. Tea Plants	413	400	13
		TOTAL	61310	35976	25334

SLN o	Name of State Nurseries	Type of Seedlings	No. of Seedlings Produced	No. of Seedlings Distributed	Blance in Nursery (Nos)
2	Lower Perbing Area 2.50 Ha.	(i) Tea Sapling(Cutting )	22000	12000	10000
		(ii) Pear cutting	2.000	1500	500
		(iii) Grasses	22000	13000	9000
		(iv) Fodder Trees	6800	5000	1800
		(v) Timber	27850	15000	12850
		TOTAL	80650	46500	34150
3	Dalapclien Area 2.00 Ha.	(i)Tea	30,000	30,000	Nil
		TOTAL =	30,000	30,000	
4	Mangan Area 2.00 Ha.	(i) Tea	30,000	15,000	15,000
		TOTAL =	30,000	15,000	15,000
5	Geva Nursery Area 1.00 Ha.	Nevara	18200	12,000	6200
		Bahar	9000	6000,.	3000

		Walnut	15000	12000	3000
		Panisaj	8000	6,000	2000
		Amiisho	59000	50000	9000
		Napier	17000	13000	4000
		Cherry	950	500	450
		Laps!	1250	1100	150
		Gogun	500	250	250
		Tea	30000	25000	5000
		TOTAL	158900	125850	33050

6	Buriakhop Nursery Area 1.50 Ha.	Nevara	14500	2000	12500
		Bahar	1300	300	1000
		Okhar	300	300	Nil
		Amiisho	10200	2200	8000
		Napier	4000	2000	2000
		Cherry	5300	300	5000
		Laps!	3350	700	3350
		Gagun	7800	800	7000

		Te?	22000	4000	18000
		Chanp	12400	400	12000
		Arupatay	1010	Nil	1010
		Passion Fruit	1550	; , Nil	1550
		Khanew	150	Nil	150
		Pareng	4000	Nil	4000
		Kaizal	3000	Nil	3000
		TOTAL	91560	13000	78560

## NATURAL CALAMITIES RELIEF PROGRAMME

### DISTRICT:- EAST

Sl. No	Programme	Constituency	Location	Area covered (Ha.)	Total Amount (Rs.)	No. of Beneficiaries
1	2 .	3	4	5	6	7
1	Bench Terracing	Rhenock	Taza	2.73	27,282.00	11
		Barapathing	Changey Samsing	2.22	22,232.00	7
			Chochenpheri	0.99	9,860.00	5
		Ranka	Barbing	2.18	21,806.00	5
		Central Pandam	Lingzey	3.15	31,544.00	26
			Upper Lingzey	1.10	10,977.00	20
			Upper Sumin	1.70	17,036.00	27
		TOTAL		14.07	1,40,737.00	101
2	Bamboo Plantation	Rhenock	Taza	7.20	72,000.00	20
		Barapathing	Changey Samsing	12.70	1,26,800.00	20
			Chochenpheri	14.00	1,40,000.00	33



		Ranka	Barbing	7.50	74,920.00	18
		Central Pandam	Sumin Lingzey	7.65	76,584.00	24
			Lingzey	6.40	63,820.00	20
		Khamdong	Rangtu	8.60	86,000.00	34
			Singbel	8.90	89,000.00	36
			Ralap	8.30	83,000.00	28
			Dung- Dung	10.00	1,00,000.00	40
			Alaichigaon	12.50	1,25,000.00	30
		TOTAL		103.75	10,37,124.00	270
3	Drainage Line Treatment (Loose boulder structure)	Khamdong	Rangtu	-	39,000.00	13
			Singbel	-	36,000.00	12
			Ralap	-	42,000.00	14
		TOTAL			1,17,000.00	39
		Sub-Total = (A)		117.82	12,94,861.00	410

DISTRICT:- NORTH

	Sl. No	Programme	Constituency	Location	Area covered (Ha.)	Total Amount (Rs.)	No. of Beneficiaries
	1	Bench Terracing	Dzongu	Upper & Lower Gnon	15.98	1,59,814.00	40
			Lachen - Mangshila	Namok	7.99	79,939.00	16
				Sweyam	7.99	79,955.00	16
				Mangshila	9.99	99,957.00	21
			• TOTAL		41.95	4,19,665.00	93
<i>i</i>	2	Drainage Line Treatment (Loose houlder structure)	Kabi-Tingda	Chawang		80,000.00	15
	3	Bamboo Plantation					
			TOTAL			80,000.00	15
			Sub-Total = (B)		43.95	4,99,665.00	108

**DISTRICT:- SOUTH**

SLN o	Programme	Constituency	Location	Area covered (Ha.)	Total Amount (Rs.)	No. of Beneficiaries
1	2	3	4	5	6	7
1	Bench Terracing	Damthang	Jowbari, Kholaghari Tingrithang	24.98	2,49,800.00	127
		Rateypani	Tuning,	9.98	99,720.00	30
			Lingithang	14.98	1,49,840.00	31
		Temi-Tarku	Tingling .	16.96	1,49,600.00	30
		Wok	Simsha	6.76	67,626.00	30
		Temi Tarku Khamdong	Simchuthang Mangalay & Pabong	24.91	2,49,104.00	44
		TOTAL		96.57	9,65,690.00	292
2	Bamboo Plantation	Ralang	Annethang	10.00	1,00,000.00	21
			Salalay Khola	15.00	1,50,000.00	25
		Khamdong	Pathing/ Yangang	13.20	1,32,000.00	27
		TOTAL		38.20	3,82,000.00	73
		Sub-Total = (C )®		134.77	13,47,690.00	365

**DISTRICT:- WEST**

Sl. No	Programme	Constituency	Location	Area covered (Ha.)	Total Amount (Rs.)	No. of Beneficiaries
1	Bench Terracing	Yoksum	Labing - Gerethang	24.12	2,41,246.00	293
			Kyongen	14.12	1,41,292.00	74
		Tashiding	Arithang	22.62	2,26,224.00	71
			Onglop Bhaluthang	23.98	2,39,888.00	40
		Sub-Total = (D)		84.84	8,48,650.00	378
		Grand Total = (A+B+C+D)		381.38	39,90,866.00	1261

**PHYSICAL AND FINANCIAL ACHIEVEMENT FOR THE YEAR 2004-05 UNDER MACRO-MANAGEMENT OF AGRICULTURE**

A	AGRICULTURE	Unit	Rate/unit	TARGET		ACHIEVEMENT	
				Phy.	Fin.	Phy.	Fin.
	PROGRAMME AND COMPONENT		(Rs.)				
<b>1</b>	<b>NATURAL RESOURCE MANAGEMENT :</b>						
I	Natural Watershed Development for Rainfed Areas of GOI	Watershed	As per GOI Guidelines	4500 Ha. 32 Nos.	262.00	4416 32 Nos	265.46
II	Water Harvesting Structure and Sprinkler in Govt./Private land	Nos	3000	20	6.00	20	2.94
III	Water Harvesting from surface run-off perennial water source including roof water by collection in tank Min 75% beneficairy contribution	Nos	10000	489	45.00	483	44.44
IV	Farmer Training	Nos.	50	2000	1.00	2000	0.32
V	1. Land Development Bench Terracing of Agriculture Land.	Ha.	10000	1220	115.38	1153	117.94
	2. Erosion control measures (Soybean demonstration)	Ha.	-	440	9.26	345	9.26
	3. Organic Manure (demonstration basis)	Ha.	-	45	8.36	40	8.36
VI	Reclamation of Acidic Soil	Ha.	3000	1000	3.00	100	5.01
	Total for Natural Resource Management				450.00		453.41

							(Rs. In lakhs)	
A	AGRICULTURE	Unit	Rate/unit	TARGET		ACHIEVEMENT		
				Phy.	Fin.	Phy.	Fin.	
	PROGRAMME AND COMPONENT		(Rs.)					
<b>2 MANURE AND FERTILIZER</b>								
I	Organic Fertilizer Demonstration	Nos	2000	1250	25.00	1200	24.04	
II	Rural Composting(25% cost with thatched roof).	Nos	2500	240	6.00	600	15.72	
III	a. Vermiculture Demonstration in Govt. farms	Nos	20000	10	2.00	-	-	
IV	Training of field functionaries on organic farming	Nos	50	8000	4.00	3000	1.58	
	<b>Total of Manure &amp; Fertilizers</b>				<b>42.50</b>		<b>41.84</b>	
<b>3 PLANT PROTECTIONS:</b>								
I	Training of field functionaries on Plant protection	Nos	250	200	0.50	200	0.50	
II	Farmers Training	Nos	50	3200	1.60	3200	1.60	
III	Farmers Field school and promotion of bio-pesticides.	Nos	22500	32	7.20	32	6.81	
IV	Surveillance of Diseases & Pests	Lumpsum			1.00		1.00	
	<b>Total of Plant Protection</b>				<b>10.30</b>		<b>9.91</b>	

### 5 SEEDS

<b>a) Government Farms:-</b>							
I	Infrastructure for seed farm	Nos	25000	1	25.00	1	26.58
II	Multiplication of foundation &	Lumpsum			1.20		0.35

	Breeder seed.						
III	Seed Drier, grader, proseed & packing	-	800000	2	16.00	-	15.34
<b>Programme and component Seeds :</b>							
<b>b)</b>	<b>Farmers Field</b>						
I	Training of field functionaries seed production.	Nos	250	200	0.50	-	-
II	Farmers Training	Nos	200	2,000	4.00	2,000	4.00

III	Infrastructure for Seed Testing Lab.	Lumpsum			1.00		0.96
	<b>Total for Seeds</b>				<b>47.70</b>		<b>47.23</b>

<b>PROMOTION OF HYBRID RICE :</b>							
<b>6 INTEGRATED TECHNOLOGY TRANSFER (ICDP C,C):-</b>							
I	Encouraging varietal replacement & promotion of local Germplasm	Qtls. --	200 400	4000 1000	8.00 4.00	2460 1000	4.93 4.00
II	Integrated demonstration on seeds by using new & improved technology.	Ha	2500	1920	48.00	2205	55.14
II I	Farmers Training.	Nos	50	8000	4.00	7900	3.95
	Total ICDP				64.00		67.88
6	Accelerated Maize Dev. Programme (AMDP)	Ha	As per GOI	565	25.00	-	29.32
7	Pulses Dev. Programme	Qtls/Ha	As per GOI	-	15.00	-	15.13
			Guidelines				
8	Oilseeds Production Programme	Qtls/Ha	As per GOI	-	66.50	-	65.52
			Guidelines				
9	Agricultural Engineering						

I	Popularization of improved Tools & implements	sts	1500	907	13.60	841	12.62
II	Training of Rural Artisans on manufacture of seed bin/Sgri. Implements	Nos	1000	160	1.60	100	1.00
II	Popularization of seed bin & other storage	Nos	1000	310	3.10	310	3.10
	Total of sed bin & other storage				18.30		16.72
<b>10. COOPERATION:</b>							
I	Assistance to weak section cooperate	Nos	100000	8	8.00	8	8.00
II	Assistant to women Cooperative	Nos	100000	2	2.00	2	2.00
II	Training of Field Functionaries	Nos	50000	4	2.00	4	1.67
	<b>Total for Cooperation</b>				<b>12.00</b>		<b>11.67</b>
1	<b>Evaluation &amp; Monitoring</b>				<b>9.00</b>		<b>8.50</b>
2	<b>Contigency</b>				<b>6.00</b>		<b>7.59</b>
	<b>TOTAL</b>				<b>15.00</b>		<b>16.09</b>
	<b>Total Macro-management of Agriculture</b>				<b>836.00</b>		<b>833.27</b>
	<b>Total of sed bin &amp; other storage</b>				<b>18.30</b>		<b>16.72</b>



## IV. SUCCESS STORY DISTRICT-WISE

## **MUSHROOM PRODUCTION BY NIMTHANG GROUP UNDER THE PROGRAMME OF 'WOMEN IN AGRICULTURE, EAST SIKKIM 2004-05**

The role of women in Food Security & Agri. Dev. Department is vital in accelerating the socio-economic development of the state. With this objectives CSSwomen in Agri. was initiated in the State of Sikkim in the year 2000. It is an on going scheme since then. There are thirty SH Groups with twenty five members in each group. Most of the Self Help Groups are doing very well in Agriculture and allied income generating activities.

During this year 2004-05, under the guidance of Jt. Director East, various training were conducted as per the need of farm women on various subjects by inviting Resource person/Subject specialist of various disciplines at different locations for thirty Self Help Group. The subjects included were EM Technology, Floriculture, Horticulture crops and its cultivation, compost making, pickling and marketing, organic farming and mushroom cultivation etc. Similarly, training programme on Mushroom cultivation and Ginger cultivation were conducted by inviting subject specialist/Mycologist for Nimthang Group. A detailed information interwoven with practical was provided to the group.



After the training the said group decided and took up Mushroom and Ginger cultivation as an income generating activity for better sustainability of their SHG. Therefore the Nimthang group has started the business of Mushroom and Ginger cultivation with a mere cost of production of Rs. 2895 and Rs. 2500 respectively by utilizing the fund from their (Self Help Group) saving account. Consequently with the determination and hard work of the group, they could successfully produce and market their products. They earned sum of Rs. 1185/- with in a month 1<sup>st</sup> production. The ginger crop is still in the field and they have expected to get good return from it also, in the month of Oct. & Nov'05. The link worker of the group Mrs. Rosa Rai narrated the officials that they have become an example for other farmers in the village. The link worker also informed that panchayats are impressed by their activities and are welcoming them to talk to financial institutions to avail loan for running their business in large scale.



They have also forwarded an application to us for the grant of polyhouse construction for off season vegetable production for fetching better price. Ultimately this shows the training so conducted has immensely helped the group to increase their managerial organisational, entrepreneurial and decision making skills besides solving unemployment to some extent.

**CERTIFIED SEED PRODUCTION PROGRAMME IN  
SOUTH SIKKIM 2004-05**

Under the certified Seed Production trainings were imparted to farmers on Seed Production / Certification and precautionary measures to be adopted in the production of Certified Seeds. A total of 19 hos. of farmers were registered as Certified Seed Growers / Producers. A total of 34.49 quintals of Certified Seeds of Paddy variety PD-10 and Sugandha-2, Soybean variety JS-335 and PK-1024 and Rajmash variety Pusa Jwala were procured from the Certified Seed producers during 2004 - 2005. The Certified Seed production Programme have been adopted and appreciated by farmers in the South District. Farmers have appreciated the efforts of Department for encouraging Certified Seed Production in farmer's field and procuring them at a premium price by the way of incentive to the farmers. Request for continuation and increase of the ongoing Certified Seed Production Programme on a much larger scale has been made to the District Office.

**ADOPTION OF EM TECHNOLOGY IN  
PRODUCTION OF COMPOST & BOKASHI AT  
CHONGRUNG  
VILLAGE, WEST DISTRICT  
DURING 2004-05**

In West Sikkim five master trainers in each of five bio villages were appointed. These villages are Dentam, Singling, Zoom-gelling, Arithang-Chongrung, Guruthang-Arigaon (Gyalzing). Among these five villages farmers of Arithang Chongrung has shown tremendous response in adopting this new technology. Almost every household of the area are producing various types of Bakashi and Bio-pesticides by means of this E.M. solution.

PRODUCTION OF VARIOUS COMPOST AND BIO PESTICIDES THROUGH E.M.

TECHNOLOGY AT ARITHANG CHONGRUNG VILAGE DURING 2004-05

Sl.No.	Particulars	Quantity/Produced
1	Compost heap	800nsox10Qtls
2	Bokashi	1200Kgs
3	Bio pesticides	10.00ltrs.

Keeping in view of above fact recent E.M. revolution in Arithang Chongrung village may developed first compost Industry in the state in the near future.

Sri. Lal Bdr. Dahal, a progressive farmer among others in Arithang Chongrung has produced longest compost heap in India during 2004-05. At a time Sri. Dahal alone producing 2000 kgs of Bakashi, which is very effective use in vegetables and other high value cash crop like flowers and spices. His Bokashi compost is in high demand among the farmer of nearby villages. Ginger growers of nearby area is buying bakashi from Sri Dahal @ Rs. 20/- per KG. There is a demand of bakashi compost from flower grower from Gyalzing as well as from Gangtok Sri Namgyal Sherpa of Gyalzing and Sri. Pintso Bhutia from Gangtok East Sikkim has placed a demand of 20-30 Qtls. Bakashi for use in flower cultivation. It reveals that a small scale industry in compost/Bakashi making have been found to be started in a remote village of Arithang Chongrung where Sri. Dahal is fetching economic support for his regular family income.

## **LIST OF BIO-VILLAGES**



**NAME OF 100 BIG-VILLAGES**

DISTRICT		G.P.U.	NAME 0 VILLAGES
EAST	1	Namcheybong	Aaho, Yangtam, Senti, Khogsi. Basilaka
	2	Dalapchand	Mandir Gaon, Kator Basti. Savagaon, Chanday, Gaddigaon
	i	West pendam	Manjey. Saku, Lingchey. Dugadeorali, Bhurung
	4	C'hujachen	Sungdong, Lokdara/Ganep. C'hujachen. Pasokev, Rewkala
	5	Dikling	Nayabasti. Dikling. Daulaka. pachekani. Chaluthang
	6	Assamlinjey	Chhotasingtam, Lingjeym Sourni. Assam, Gocharan
	7	Ranka	Dajey. Lower Berbing. Baliman, Sangtam, Malongthang, Raigaon.
WEST	1	Zoom	Loer Zoom, Upper Zoom, Sisney, Namrik, Middle zoom
	2	Dentam	Middle Begha. Lower Mangmo, Upper mangmo. Ledung. Dentam
	3	Singling	LJpper Singling. Lower Singling. Ogeng, Middle Singling. Punchebong
	4	Arigaon	Arigaon, Yangthan. Chownjgang. Langgan. Guruthang

	5	Arithang	Arithang. Tinzring. Upper Chowngra, Lower Chowngra, Nasa
NORTH	1	Mangsila	Upper Mangsila, Lower Mangsila, Chewang, Namok, Lingchong
	2	Singhik	Santam, Lower Singhik, Upper singhik, Kajor, Pakshap
	3	Tingwong	Tingwong, Lingtem, Pasingdung. Lingdong, Berpok
SOUTH	1	Rabangia	Rabangia. Sangmo. Burfung. Jarong. Denthang
	2	Perbing	Pongia, Manidara, Ramaram. Perbing. Chhuba
	->	Namphok	Namphok. Mangli, Bendumra/Mang. Lower Sripattam
	4	Bulsingtam	Solebong, Bull. Singtam. Palum, Rong
	5	Denchung	Assangthang, Denchung, Upper Kamrang, Jubari, Mikhola.