



Government of Orissa

ANNUAL REPORT
ON
NATURAL CALAMITIES
2004-05

SPECIAL RELIEF COMMISSIONER
REVEUE DEPARTMENT

ORISSA DISTRICT MAP



ORISSA AT A GLANCE

❖ Demography of the State		
Total Population (2001)	36,804,660	
Male	18,660,570	50.70 %
Female	18,144,090	49.29 %
Sex ratio (Female for 000 Male)	972	
SC (1991)	6,082,063	16.52 %
ST (1991)	8,145,081	22.13 %
Rural Population	31,287,422	85.00 %
Urban Population	5,517,238	15.00 %
❖ General		
Total Area (Sq.kms.)	1.56 lakh	
No. of Districts	30	
No. of Sub-division	58	
No. of Tahasils	171	
No. of Blocks	314	
No. of GPs	6234	
No. of Villages	51,349	
No. of Municipalities	35	
No. of NACs	68	
❖ Literacy		
Male	11,992,333	64.26%
Female	7,844,722	43.23%
Total	19,837,055	53.89%
❖ Infant Mortality Rate per 1000 live birth		
	96	
Children (0-6 years)	5,358,810	
Male	2,744,552	
Female	2,614,258	
Life Expectancy	57 years	
❖ Land use pattern (In lakh hect.)		
Total Cultivable Area	64.52	
High	29.42	45.6 %
Medium	18.80	34.0 %

Low		16.30	25.3 %
❖ Irrigation Potential			
Kharif		25.20	39 %
Major and Medium		11.76	
Minor (flow)		4.5	
Minor (Lift)		3.36	
Other sources		5.58	
Rabi		10.95	17 %
❖ Size of Operational Holdings			
Marginal	(Below 1 hect.)	21.18	53.66 %
Small	(1.0 to 2.0 hect.)	10.35	26.22 %
Semi		5.93	15.03 %
Medium	(2.0 to 4.0 hect.)		
Medium	(4.0 to 10.0 hect.)	1.85	4.7 %
Large	(10.0 hect. and above)	0.15	0.38 %
Total No. of Cultivators		42,38,347	
Male		33,71,717	
Female		8,66,630	
Total Agricultural Labourers		50,01,075	
Male		25,80,522	
Female		24,20,553	
❖ Below Poverty Line Families		(As per 1997 BPL Census)	
Total Rural Families		67,84,127	
Total BPL Families		44,93,410	66.37 %
Small Farmers		7,47,776	
Marginal Farmers		14,17,532	
Rural Artisans		2,19,790	
Agricultural Labourers		16,89,744	
Schedule Castes		10,72,153	
Schedule Tribes		13,99,266	
Women		8,65,952	
Physically Handicapped		1,48,118	
Per Capita Income		Rs.5,324/-	

CHAPTER - I

Introduction

Orissa is situated between 17.31^o to 20.31^o North latitude, 81.31^o East longitude covering an area of 1, 56,000 sq. KM. The Bay of Bengal forms the eastern boundary of State, which has a coast line of nearly 480 kms. The State is broadly divided into the following five natural regions basing on morphological peculiarities, geological, climatic and edaphic conditions.

- i) Coastal Plains
- ii) River Valley and Flood Plains
- iii) Rolling Uplands
- iv) Plateau
- v) Mountains

The climate of the State varies from moist, sub-humid to dry sub-humid. Agriculture in Orissa is mainly rain fed and depends on monsoon. Generally the State experiences average annual rainfall of 1451 mm. Out of which the average rain due to monsoon is 1144 mm from June to September measuring 80% of it. In absence of monsoon, it would be difficult to go for Kharif crops in Orissa.

The socio-economic structure of the State is characterized by high percentage of socially & economically disadvantaged population, low literacy, relatively low life expectancy, high infant mortality, low urbanization and over dependence on primary sector, particularly, on agricultural wage employment.

Orissa had encountered severe floods during 2003 in three phases. Every year the State experiences nature's fury in shape of floods / cyclones or droughts. Although several initiatives have been taken to prepare the community to meet the challenge posed by natural disasters, there is hardly any time left to complete the process. Before recovering fully from the impacts of disasters occurred during the last decade, the State faced a medium flood in north Orissa and drought condition mostly in western parts during 2004-05. These are the two calamities which grappled the State during the year under report in addition to occurrence of fire accidents, heat-wave, hailstorms, whirlwinds etc.

Calamities

- ✓ Floods/ Heavy Rain due to Depression
- ✓ Droughts
- ✓ Heat-wave
- ✓ Fire Accidents/ Lightning Deaths
- ✓ Boat Accidents
- ✓ Localized Hailstorms/ Whirl-winds
- ✓ Mild Tremor in the wake of Tsunami

Months of Occurrence

Calamities	Months
Floods	21st August to 26 August & 3rd October to 6th October
Drought (Affected to Kharif crops)	June to October
Heat-wave Conditions	March to June
Fire Accidents	March to June
Lightning Deaths	Mainly during Monsoon (June to October)
Hailstorms	April to June
Mild Tremor	26th December and 28th March

Rainfall, 2004

The major percentage of the annual rainfall i.e. 80% (1185 mm) is experienced from mid June to September last in the State every year. During 2004, the State experienced inadequate pre-monsoon rain. The rainfall in May was 26.6 mm which was less than 60% of normal rainfall (70.8 mm) for the month. Due to depression in the Bay of Bengal, there was a good spell of rainfall all over the State from 12th to 15th June. But from 16th June onwards there was no rainfall for two consecutive weeks which resulted in an unexpected dry spell and moisture stress condition.

Once again, monsoon became active from 29th June. As a result, good rainfall was experienced in the State. During July rainfall of 327.4 mm was recorded against the normal of 351.6 mm which was only 6.8 less than the normal. Again in August the monsoon was favourable for the State and there was excess rainfall at few places resulting a medium flood in the coastal districts i.e. Balasore, Bhadrak, Jajpur, Mayurbhanj flooding agriculture lands in some part of these districts. The actual rainfall recorded during August was 334.7 mm against the normal of 335.6 mm which was (-) 0.3% less than the normal. This rainfall helped a great extent to the paddy cultivation all over the State. Although there was a dry spell during last part of August but it did not continue for a longer period.

Depressions in Bay of Bengal in the 2nd week of September and also in 1st week of October resulted in good rain all over the State during that period. Baring a few districts, the State in general experienced normal rainfall during the period from May to October. The district wise monthly average rainfall is shown at **Table-1**.

RAINFALL_2004

(Rainfall in mm.)

Sl. No.	DISTRICT	JAN.			FEB.			MAR.			APRIL.			MAY			JUNE			JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER			ANNUAL		
		Total (Actual)	Normal	% of Dev.	Total (Actual)	Normal	% of Dev.	Total (Actual)	Normal	% of Dev.	Total (Actual)	Normal	% of Dev.	Total (Actual)	Normal	% of Dev.	Total (Actual)	Normal	% of Dev.	Total (Actual)	Normal	% of Dev.	Total (Actual)	Normal	% of Dev.	Total (Actual)	Normal	% of Dev.	Total (Actual)	Normal	% of Dev.	TOTAL (Actual)	Normal	% of Dev.						
1	Angul	4.7	15.5	-69.8	5.3	30.8	-82.7	23.7	18.7	26.7	58.2	28.8	102.1	37.2	59.5	-37.5	130.9	208.9	-37.4	434.4	382.0	13.7	417.8	333.0	25.5	125.3	220.6	-43.2	102.3	93.6	9.3	0.0	25.2	-100.0	0.0	4.5	-100.0	1339.8	1421.1	-5.7
2	Balasore	0.0	17.1	-100.0	0.0	30.6	-100.0	4.2	34.3	-87.9	36.9	53.1	-30.5	77.8	105.1	-26.0	260.4	218.2	19.3	326.1	332.6	-2.0	387.7	313.8	23.6	231.4	243.1	-4.8	266.1	171.0	55.6	0.0	42.3	-100.0	0.0	7.2	-100.0	1590.5	1568.4	1.4
3	Bargarh	3.2	14.3	-77.6	1.8	24.4	-92.5	0.0	16.4	-100.0	0.0	17.6	-100.0	0.0	30.9	-100.0	199.6	218.7	-12.6	334.9	469.6	-28.7	331.3	430.9	-23.1	89.9	224.3	-59.9	62.3	61.6	1.1	0.0	14.7	-100.0	0.0	3.6	-100.0	1022.9	1527.0	-33.0
4	Bhadrak	0.0	17.1	-100.0	3.0	30.6	-100.0	10.2	34.3	-70.3	99.2	53.1	86.9	44.8	105.1	-57.4	206.3	218.2	-5.5	346.3	332.6	4.1	308.9	313.8	-1.6	202.0	243.1	-16.9	216.4	171.0	26.5	0.0	42.3	-100.0	0.0	7.2	-100.0	1437.1	1568.4	-8.4
5	Bolangir	0.0	13.9	-100.0	15.5	18.2	-14.6	1.9	13.9	-86.6	11.5	18.7	-38.8	12.2	29.1	-58.2	311.6	233.7	33.3	335.4	391.7	-14.4	248.4	407.1	-39.0	99.1	232.0	-57.3	86.0	65.6	31.1	0.0	15.9	-100.0	0.0	3.7	-100.0	1121.5	1443.5	-22.3
6	Boudh	8.5	13.0	-34.6	36.4	27.6	31.9	5.3	25.1	-78.8	32.9	35.5	-7.4	41.2	66.0	-37.6	239.3	239.1	0.1	510.5	390.8	30.6	350.3	373.8	-6.3	151.2	260.3	-41.9	81.0	127.2	-36.3	0.0	31.8	-100.0	0.0	6.9	-100.0	1456.7	1597.1	-8.8
7	Cuttack	2.5	13.7	-82.0	7.0	27.5	-74.5	2.8	20.8	-86.3	62.6	34.2	83.1	35.6	86.5	-58.9	126.7	222.3	-43.0	309.1	351.8	-12.1	359.7	315.8	13.9	208.7	229.2	-8.9	284.2	147.4	92.8	0.0	46.7	-100.0	0.0	5.4	-100.0	1398.9	1501.3	-6.8
8	Deogarh	1.9	14.3	-86.7	3.2	24.4	-87.0	0.7	16.4	-95.9	2.0	17.6	-88.6	18.0	30.9	-41.6	82.8	218.7	-62.1	261.4	469.6	-44.3	353.3	430.9	-18.0	87.2	224.3	-61.1	58.2	61.6	-5.5	0.0	14.7	-100.0	0.0	3.6	-100.0	868.7	1527.0	-43.1
9	Dhenkanal	3.1	15.5	-79.8	17.9	30.8	-42.0	11.4	18.7	-39.2	30.8	28.8	7.0	23.1	59.5	-61.2	145.2	208.9	-30.5	331.4	382.0	-13.3	226.4	333.0	-32.0	113.8	220.6	-48.4	143.3	93.6	53.0	0.0	25.2	-100.0	0.0	4.5	-100.0	1046.3	1421.1	-26.4
10	Gajapati	9.6	10.8	-11.6	9.8	22.2	-55.9	15.0	21.3	-47.7	145.8	42.3	177.4	45.1	76.8	-60.8	169.9	169.2	0.4	296.5	221.6	33.8	150.6	242.4	-37.9	137.7	229.6	-40.0	286.8	179.8	59.5	14.5	68.6	-78.9	0.0	11.0	-100.0	1281.0	1295.6	-1.1
11	Ganjam	8.3	10.8	-23.0	19.2	22.2	-13.6	9.7	21.3	-57.5	85.3	42.3	101.7	16.0	76.8	-79.2	84.0	169.2	-50.4	261.2	221.6	17.9	173.4	242.4	-28.5	118.6	229.6	-48.3	203.7	179.8	13.3	0.0	68.6	-100.0	0.0	11.0	-100.0	979.4	1295.6	-24.4
12	Jagatsinghpur	3.3	13.7	-76.3	5.5	27.5	-80.0	0.5	20.8	-97.6	65.0	34.2	86.8	15.6	86.5	-81.9	93.8	222.3	-56.0	245.0	351.8	-30.4	375.8	315.8	19.0	142.6	229.2	-37.8	256.4	147.4	73.9	0.0	46.7	-100.0	0.0	5.4	-100.0	1203.4	1501.3	-19.8
13	Jajpur	0.0	13.7	-100.0	20.6	27.5	-25.1	7.0	20.8	-66.3	32.0	34.2	-6.4	45.7	86.5	-47.2	195.0	218.7	-10.8	316.0	351.8	-10.2	371.7	315.8	17.7	178.5	229.2	-22.1	252.2	147.4	71.1	0.0	46.7	-100.0	0.0	5.4	-100.0	1418.7	1501.3	-5.5
14	Jharsuguda	6.2	14.3	-56.6	1.4	24.4	-94.3	0.4	16.4	-97.6	13.8	17.6	-21.6	2.6	30.9	-91.6	131.8	222.3	-40.7	306.2	469.6	-34.8	555.2	430.9	28.8	108.2	224.3	-51.8	96.4	61.6	56.5	0.6	14.7	-95.9	0.0	3.6	-100.0	1222.8	1527.0	-19.9
15	Kalahandi	12.3	11.5	6.6	5.1	15.4	-67.0	5.1	13.6	-62.6	28.9	23.7	21.9	23.8	33.7	-29.2	451.5	228.3	97.7	412.0	343.5	19.9	503.8	384.6	31.0	166.1	220.9	-24.8	134.9	81.9	64.7	0.0	17.9	-100.0	0.0	3.2	-100.0	1743.4	1378.2	26.5
16	Kandhamal	17.0	13.0	4.7	22.7	27.6	-17.7	8.2	25.1	-67.5	86.4	35.5	143.3	31.5	66.0	-52.2	260.8	239.1	9.1	402.9	390.8	3.1	288.2	373.8	-22.9	219.7	260.3	-15.6	207.8	127.2	63.4	0.0	31.8	-100.0	0.0	6.9	-100.0	1545.2	1597.1	-3.2
17	Kendrapara	0.0	13.7	-100.0	2.8	27.5	-89.9	0.0	20.8	-100.0	14.3	34.2	-58.1	24.0	86.5	-72.3	177.1	222.3	-20.4	241.7	351.8	-31.3	430.0	315.8	36.2	203.1	229.2	-11.4	290.3	147.4	96.9	0.0	46.7	-100.0	0.0	5.4	-100.0	1383.2	1501.3	-7.9
18	Keonjhar	1.0	22.2	-95.5	4.5	38.0	-88.3	1.8	23.0	-92.3	61.0	43.3	40.8	33.1	88.9	-62.7	177.3	209.5	-15.4	260.0	391.8	-33.6	317.1	335.3	-5.4	135.8	233.0	-41.7	101.7	112.7	-9.8	0.0	31.7	-100.0	0.0	5.1	-100.0	1093.2	1534.5	-28.8
19	Khordha	0.0	14.2	-100.0	0.0	26.2	-100.0	0.0	19.7	-100.0	42.4	26.8	58.2	17.5	67.2	-74.0	93.6	207.0	-54.8	292.1	310.8	-6.0	238.3	300.3	-20.6	144.2	244.7	-41.1	227.2	167.0	36.0	0.0	57.9	-100.0	0.0	7.3	-100.0	1055.3	1449.1	-27.2
20	Koraput	20.7	6.7	208.6	0.0	11.3	-100.0	3.8	16.2	-76.9	24.3	53.4	-54.5	48.3	75.0	-35.6	329.7	205.8	60.2	331.5	351.1	-5.6	329.4	380.3	-13.4	158.0	262.1	-39.7	144.0	116.5	23.6	12.1	35.8	-66.2	0.0	7.6	-100.0	1401.6	1521.8	-7.9
21	Malkangiri	8.6	6.7	28.4	0.0	11.3	-100.0	0.0	16.2	-100.0	9.3	53.4	-82.6	30.6	75.0	-59.2	408.2	205.8	98.3	307.4	351.1	-12.5	461.4	380.3	21.3	173.7	262.1	-33.7	184.4	116.5	58.3	4.7	35.8	-86.8	0.0	7.6	-100.0	1588.2	1521.8	4.4
22	Mayurbhanj	0.0	21.9	-100.0	3.8	35.5	-89.3	9.6	29.8	-67.8	75.2	47.3	59.0	49.8	96.7	-48.5	208.4	235.2	-11.4	213.3	426.4	-50.0	393.7	375.5	4.8	185.2	232.3	-20.3	155.2	113.6	36.6	0.0	27.4	-100.0	0.0	6.6	-100.0	1294.3	1648.2	-21.5
23	Nawarangpur	27.7	6.7	313.0	9.5	11.3	-16.0	1.9	16.2	-88.1	46.7	53.4	-12.6	38.2	75.0	-49.1	407.9	205.8	98.2	399.0	351.1	11.0	389.3	380.3	2.4	222.8	262.1	-15.0	144.9	116.5	24.3	4.7	35.8	-86.8	0.0	7.6	-100.0	1692.4	1521.8	11.2
24	Nayagarh	3.3	14.2	-77.1	18.4	26.2	-29.9	5.0	19.7	-74.6	73.5	26.8	174.3	20.4	67.2	-69.7	147.7	207.0	-28.7	424.5	310.8	36.6	207.3	300.3	-31.0	127.6	244.7	-47.9	199.1	167.0	19.2	0.0	57.9	-100.0	0.0	7.3	-100.0	1226.7	1449.1	-15.3
25	Nuapara	4.4	11.5	-61.7	3.0	15.4	-80.5	0.0	13.6	-100.0	4.8	23.7	-79.7	3.8	33.7	-88.7	255.4	228.3	11.9	221.4	343.5	-35.6	202.2	384.6	-47.4	102.2	220.9	-53.7	70.4	81.9	-14.0	0.0	17.9	-100.0	0.0	3.2	-100.0	867.6	1378.2	-37.1
26	Puri	0.0	14.2	-100.0	6.2	26.2	-76.4	0.0	19.7	-100.0	63.1	26.8	135.4	25.8	67.2	-61.6	79.5	207.0	-61.6	259.9	310.8	-16.4	247.6	300.3	-17.6	147.0	244.7	-39.9	214.9	167.0	28.7	0.0	57.9	-100.0	0.0	7.3	-100.0	1044.0	1449.1	-28.0
27	Rayagada	13.5	6.7	100.8	4.9	11.3	-56.6	9.7	16.2	-40.4	97.5	53.4	82.6	35.7	75.0	-52.4	242.3	205.8	17.7	341.6	351.1	-2.7	285.9	380.3	-24.8	100.5	262.1	-7.5	170.6	116.5	46.5	2.3	35.8	-93.6	0.0	7.6	-100.0	1304.4	1521.8	-14.3
28	Sambalpur	3.9	14.3	-72.5	3.9	24.4	-84.1	9.7	16.4	-40.8	41.9	17.6	138.0	0.2	30.9	-99.3	116.0	218.7	-47.0	387.6	469.6	-17.5	540.8	430.9	25.5	144.2	224.3	-35.7	69.3	61.6	12.5	0.0	14.7	-100.0	0.0	3.6	-100.0	1317.5	1527.0	-13.7
29	Sonepur	5.4	13.9	-61.0	2.3	18.2	-87.6	2.4	13.9	-83.0	35.6	18.7	90.3	16.7	29.1	-42.7	163.3	233.7	-30.1	401.9	391.7	2.6	259.1	407.1	-36.4	121.5	232.0	-47.6	107.7	65.6	64.2	0.0	15.9	-100.0	0.0	3.7	-100.0	1115.9	1443.5	-22.7
30	Sundargarh	4.2	19.9	-78.7	1.9	36.7	-94.7	0.4	19.3	-98.1	12.7	20.1	-37.0	0.9	41.1	-97.8	120.2	250.9	-52.1	327.0	480.2	-31.9	487.7	458.2	6.4	126.2	223.9	-43.6	65.8	75.9	-13.3	0.3	16.1	-98.0	0.0	5.3	-100.0	1147.4	1647.6	-30.4
Total		173.1			235.5			150.1			1393.4			815.1			6015.8			9838.0			10192.1			4471.9			4883.6			39.2			0.0			38207.9		
State Average		5.8	14.0	-58.8	7.9	25.9	-70.1	5.0	21.4	-																														

CHAPTER - II

Flood-2004

There was heavy rainfall from 21st August to 23rd August over upper catchments as well as lower catchments of river Baitarani, Subarnarekha, Budhabalang. As a result, the water level of these rivers crossed the danger level on 21/08/04 and a medium flood came in these rivers. The water levels of these rivers on these days are given below.

River	Place	Danger Level	Water Level in metre		
			21/8/04	22/8/04	23/8/04
Baitarani	Akhuapada	17.83	17.84	18.30	17.50
	Anadapur	38.36	38.41	37.35	36.06
Subarnarekha	Rajghat	10.36		11.03	10.66
	Jamsolaghat	49.15		50.26	48.32
Budhabalanga	NH5	8.13		7.10	6.58

This flood had affected 4 districts namely Balasore, Bhadrak, Jajpur and Mayurbhanj.

On 3/10/04 a depression occurred over West Central Bay of Bengal. Under its influence wide spread heavy rain had occurred in Southern coastal and Northern Orissa. The water level in river Vansadhara, Rusikulya, Budhabalang and Baitarani had risen but remained below the danger level. Rainfall recorded on 5/10/04 in the catchments of these rivers is mentioned below.

Rainfall in Catchments (5/10/04)

Sl. No.	River	Place	Amount of Rainfall in mm
1	Budhabalang	1. Balasore	137.0
		2. Baripada	80.4
		3. Chandanpur	97.0
		4. Jaypur	102.0
		5. Govindpur NH5	122.2
2	Baitarani	1. Akhuapada	104.0
		2. Anandapur	69.6
		3. Chandabali	118.5
3	Vansadhara	1. Gosani	49.2
		2. Gunupur	47.2
		3. Kalingapatnam	50.4

		4. Kutragada	89.6
		5. Mahendragada	89.0
		6. Mohana	64.0
4	Rusikulya	1. Berhampur	62.0
		2. Gopalpur	70.4
		3. Purusottampur	68.0
		4. Sorada	76.0

The district-wise rainfall from 1st October to 7th October, 04 is given in **Table-2**. It is seen from the table that the cumulative rainfall in the first week of October' 04 was 144.5 mm against anticipated normal 29.7 mm which was 386.3 % more.

Due to heavy rainfall, flash floods occurred in river Vansadhara and Gangahar (a tributary) and four blocks of Gajapati district and one block of Mayurbhanj district were affected by this flood.

Rainfall during 1st week of October-2004.

Sl. No.	District	Normal Rainfall for the month of October	Actual Rainfall							Actual (Total)	Anticipated Normal (up to 7th)
			1st	2nd	3rd	4th	5th	6th	7th		
1	Angul	93.6	0.5	3.3	3.1	15.1	21.3	22.7	17.6	83.6	21.1
2	Balasore	171.0	0.9	0.0	16.8	40.6	108	55.7	40.6	262.6	38.6
3	Bargarh	61.6	2.3	5.7	2.6	4.1	12.6	23.5	10.2	61.0	13.9
4	Bhadrak	171.0	0.7	0.0	18.4	36.7	97.4	32.4	24.7	210.3	38.6
5	Bolangir	65.6	0.0	0.1	0.9	0.6	9.3	57.8	5.5	74.2	14.8
6	Boudh	127.2	0.0	0.0	0.0	14.0	17.7	44	3.3	79.0	28.7
7	Cuttack	147.4	0.0	5.0	26.1	60.2	136.7	32.3	23.1	283.4	33.3
8	Deogarh	61.6	0.3	0.0	0.0	3.4	9.2	4.8	6.9	24.6	13.9
9	Dhenkanal	93.6	1.9	3.8	10.0	15.2	45.6	28.5	22.0	127.0	21.1
10	Gajapati	179.8	5.6	13.1	6.2	73.2	92.0	16.2	14.3	220.6	40.6
11	Ganjam	179.8	0.8	0.0	14.1	51.9	73.5	15.5	11.4	167.2	40.6
12	Jagatsinghpur	147.4	0.0	0.0	18.3	80.9	89.8	36.4	21.8	247.2	33.3
13	Jajpur	147.4	0.0	4.4	17.3	40.9	117.2	43.6	25.9	249.3	33.3
14	Jharsuguda	61.6	11.6	1.4	6.4	1	3.2	34.2	24.4	82.2	13.9
15	Kalahandi	81.9	0.4	0.6	2.5	9.8	41.9	67.3	14.2	136.7	18.5
16	Kandhamal	127.2	0.0	4.2	1.9	6.1	46.4	47.4	27.8	133.8	28.7
17	Kendrapara	147.4	0.0	0.7	25.5	48.6	105.4	62	35.4	277.6	0
18	Keonjhar	112.7	0.5	0.4	1.1	11.6	27.1	15.4	33.7	89.8	25.4
19	Khordha	167.0	1.6	2.2	17.3	54.3	93.6	35.5	17.7	222.2	37.7

20	Koraput	116.5	0.4	0.0	1.5	9.4	63.6	30.3	12.2	117.4	26.3
21	Malkangiri	116.5	20.1	0.6	3.3	53.4	24	48	9.5	158.9	26.3
22	Mayurbhanj	113.6	4.8	5.0	5.1	24.4	43.7	29.7	31.4	144.1	25.7
23	Nawarangpur	116.5	8.4	0.0	0.2	19.5	50.9	29.8	8.9	117.7	26.3
24	Nayagarh	167.0	0.0	7.6	10.0	48.6	78.4	23.3	26.3	194.2	37.7
25	Nuapada	81.9	0.0	0.0	0.0	0.6	18	31	3.6	53.2	18.5
26	Puri	167.0	0.0	2.5	27.8	56.1	62.5	32	16.4	197.3	37.7
27	Rayagada	116.5	3.9	0.0	7.1	32	66.6	38.3	7.3	155.2	26.3
28	Sambalpur	61.6	3.7	0.8	12.5	18.6	8	19.1	11.5	74.2	13.9
29	Sonepur	65.6	0.0	1.3	2.2	1.2	10	17.2	13.2	45.1	14.8
30	Sundargarh	75.9	2.4	6.7	1.6	0.9	0.6	15.7	17.4	45.3	17.1
	Total		70.8	69.4	259.8	832.9	1574.2	989.6	538.2	4334.9	
	State	131.6									

[Table-2]

Impact

Districts Affected

5 districts were affected due to floods in 2004 in two phases. The date of occurrence and districts affected are as follows.

Month/ Date	Districts	Rivers
22 nd August to 26 th August' 04	Bhadrak, Jajpur, Balasore and Mayurbhanj	Baitarani, Subarnarekha, Budhabalang, Gangahar and Salandi
3 rd October to 6 th October' 04	Gajapati and Mayurbhanj	Vansadhara and Gangahar

Loss of life and properties

Due to floods in 2004 the loss of life and property is given below at **Table-3 & 4**.

Impact of Flood-2004

Affected

Sl. No.	Districts	No. of Blocks	ULB	GP	Village	Population in lakh
1	Balasore	4	-	29	140	0.73
2	Bhadrak	3	-	30	143	1.58
3	Gajapati	4	2	32	247	0.30
4	Jajpur	1	-	4	11	0.09
5	Mayurbhanj	8	2	13	23	0.40
	Total	20	4	108	564	3.10

[Table-3]

Damage

Sl. No.	Districts	Human Live Lost	House Damaged				Crop Damage	
			Fully	Severely	Marginally	Total	Crop Area Affected in Hect.	Sand cast in Hect.
1	Balasore	-	1	-	2	3	19729	-
2	Bhadrak	-	-	-	-	42	13340	-
3	Gajapati	5	51	189	1674	1914	128	47.25
4	Jajpur	-	-	-	-	-	4030	-
5	Mayurbhanj	5	43	93	2	138	8.91	9.84
	Total	10	95	282	1720	2097	37235.91	57.09

[Table-4]

a) **Human Population**

List of Deceased Persons in Floods-2004					
Sl.	District	Name & Address	Age	Cause of Death	Date of death
1	Gajapati	Sambarasabar, s/o late Khada Sabar, Vill- Talasankarda, PS-Rayagada	40	Drowning	04.10.2004
2		Kamali Sabar, W/o late Sambarsabar, Vill- Talasakarda, PS-Rayagada	35	Drowning	04.10.2004
3		Baraja Jana, S/o late Gobardhan Jani, Vill- Rajapur, PS- Gurandi	50	Drowning	04.10.2004
4		Apana Jani, S/o Baraja Jani, Vill- Rajapur, PS-Guradi	22	Drowning	04.10.2004
5		Rama Rao, S/o Y Sunder Rao, Vill/PS- Paralakhemundi	45	Wall collapse	08.10.2004
1	Mayurbhanj	Sukuramani Patra, D/o Rama Patra, Vill- Podachakdi, PS-Tiringi	20	Wall collapse	20.08.2005
2		Mukta Pingua, W/o Binupingua, Vill- Raipada, Ps- Badampahad	50	Wall collapse	20.08.2005
3		Laba Mansadha, s/o Jane Mansadha, Vill- Ghoda Dega, Ps-Badampahad	56	Wall collapse	20.08.2005
4		Chaitan Pingua	60	Wall collapse	20.08.2005
5		Hira Pingua, Vill- Raipada, Ps- Badampahad	50	Wall collapse	20.08.2005

[Table-4.1]

b) **Damage to Infrastructure**

The no. of infrastructures damaged due to flood-2004 is shown at **Table-5**.

Roads

Damage to infrastructure

District	PWD Roads	Rural Roads	PS/ GP Roads	Municipal Roads	School Buildings	River Embankments	MIPs	LIPs
Balasore	4	38	84	-	39	53	3	-
Bhadrak	38	62	275	-	81	131	8	36
Gajapati	16	42	484	26	171	6	48	52
Jajpur	1	10	58	-	-	2	2	-
Mayurbhanj	-	15	120	16	86	-	-	33
Total	59	167	1021	42	377	192	61	121

[Table-5]

c) **Water Supply**

Gajapati District

- RWSS water supply scheme damaged: 4
- Urban water supply scheme damaged: 560

f) **Loss Assessment**

The total loss for the flood-04 was Rs.7461.56 lakh. The district-wise loss is at **Table-6**.

Loss Assessment due to Flood-04

(Rs. in lakh)

Sl.	Name of the District	Crop loss	Private house damaged	Damage to different public utility	Total loss
1.	Jajpur	46.69	Nil	148.15	194.84
2.	Balasore	728.79	1.40	1189.15	1919.34
3.	Gajapati	Nil	50.00	2078.42	2128.42
4.	Bhadrak	14.09	1.40	2880.44	2895.93
5.	Mayurbhanj	Nil	Nil	323.03	323.03
	Total Loss	789.57	52.80	6619.19	7461.56

[Table-6]

FLOOD MANAGEMENT

1. Rescue

The affected districts were alerted in advance to meet any eventuality. People were warned through local administration. Sixty two nos. of boats were used in evacuation, rescue and transportation of medical team and relief materials. ODRAF team deployed in the affected areas of Bhadrak and Balasore districts for relief and rescue operation. The position of boats deployed is given below.

District	No. of Boats Deployed
Bhadrak	17
Mayurbhanj	2
Balasore	43
Total	62

2. Emergent Relief

Evacuated persons were provided dry food in shape of rice, chuda and guda. Emergent relief for 3 days was also provided to the people who were marooned.

Relief material in shape of Rice (202.3 MT), Flattered rice (31.6 MT) and Jaggery (2.4 MT) were provided to 2.26 lakh persons in the affected areas. Polythene sheets, biscuits, candles, matchboxes were also provided to affected persons.

3. Safe Drinking Water

Halogen Tablet distributed	-	2,11,420
Wells disinfected	-	3702
Tube wells disinfected	-	974

Measures undertaken for providing of safe drinking water to the affected people during floods are given below.

District	Halogen Tablets distributed	Wells Disinfected	Tube wells Disinfected
Bhadrak	129210	349	394
Balasore	30000	2961	375
Jajpur	51200	320	60
Mayurbhanj	1000	72	145
Total	211410	3702	974

4. Health & Sanitation

Essential drugs like antibiotics, paracetamol tablets, anti-snake venom and bleaching powder were supplied to affected districts sufficiently. Mobile Health Teams were deployed in the affected areas.

➤ Medical centres opened	-	44
➤ Medical Team Deployed	-	47
➤ ORS packet distributed	-	20882
➤ Bleaching powder distributed	-	30 bags
➤ No. of persons treated	-	4792

5. Animal Care

- Veterinary Team deployed - 7 (Bhadrak-3, Jajpur-7)
- Cattle vaccinated - 10675 (Bhadrak-9700, Jajpur-975)
- Cattle feed distributed - 147.5 MT in Bhadrak district

6. Ex-gratia Assistance

As per CRF norm ex-gratia assistance @ Rs. 50000/- was paid to the next of the kin of the deceased persons died due to flood'04.

7. House Building Assistance

House building assistance was paid out of CRF to the affected people whose houses were damaged due to flood'04. An amount of Rs. 3.66 lakh had been given to Collectors for distribution of HB assistance among the flood victims.

- * -

Chapter-III

Drought - 2004

The state also experienced moderate drought in some parts during the year-2004. Some districts in the State had received inadequate and deficient rainfall during 2004 monsoon period. As a result the Kharif crop both in irrigated and non-irrigated lands became affected by drought like situation. The month-wise rainfall due to south-west monsoon and its district-wise deviation is narrated below.

a) May, 2004

- **28 Districts having Deviation (- 30% to -50 %)**
 - Angul (-37.5), Bargarh(-100.0), Bhadrak(-57.4), Bolangir (-58.2), Boudh (-37.6), Cuttack (-58.9), Deogarh (-41.6), Dhenkanal(-61.2), Gajapati (-60.8), Ganjam(-79.2), Jagatsinghpur(-81.9), Jajpur(-47.2), Jharsuguda(-91.6), Kandhamal (-52.2), Kendrapara (-72.3), Keonjhar (-62.7), Khordha (-74.0), Koraput (-35.6), Malkangiri (-59.2), Mayurbhanj (-48.5), Nawarangpur (-49.1), Nayagarh (-69.7), Nuapada (-88.7), Puri (-61.6), Rayagada (-52.4), Sambalpur (-99.3), Sonapur (-42.7) & Sundargarh (-97.8).

- **2 Districts having Deviation (- 20% to -30%)**
 - Balasore (-26.0) & Kalahandi (-29.2)

Average Rainfall deviation of the State for the month of May-2004 is **-62.3%** which indicates pre-monsoon rain was quite deficient in the state.

b) June, 2004

- **11 Districts having Deviation (- 30% to -50 %)**
 - Angul (-36.8), Deogarh (-62.1), Dhenkanal (-30.5), Ganjam (-50.4), Jagatsinghpur (-56.0), Jharsuguda (-39.7), Khordha (-54.8), Puri (-61.6), Sambalpur (-47.0), Sonapur (-30.1) & Sundargarh (-52.1).
- **2 Districts having Deviation (- 20% to -30%)**
 - Cuttack (-26.8) & Nayagarh (-28.7)
- **6 Districts having Deviation (- 20% or Below)**
 - Bargarh(-12.5), Bhadrak (-5.5), Jajpur (-12.3), Kendrapara (-19.1), Keonjhar (-15.4) & Mayurbhanj (-11.4)
- **11 Districts having rainfall more than Normal**

- Balasore (+19.3), Bolangir (+33.3), Boudh (+0.1), Gajapati (+0.4), Kalahandi (+97.7), Kandhamal (+9.1), Koraput (+60.5), Malkangiri (+98.3), Nawarangpur (+98.2), Nuapada (+11.9) & Rayagada (+17.7)

Average Rainfall deviation of the State for the month of June-2004 is **-5.4%**

c) July, 2004

- **8 Districts having Deviation (- 30% to -50 %)**
 - Deogarh (-44.3), Jagatsinghpur (-30.4), Jharsuguda (-34.8), Kendrapara (-31.3), Keonjhar (-33.6), Mayurbhanj (-50.0) Nuapada (-35.7), & Sundargarh (-31.9).
- **1 District having Deviation (- 20% to -30%)**
 - Bargarh (-28.7)
- **11 Districts having Deviation (- 20% or Below)**
 - Balasore (-2.0), Bolangir (-14.4), Cuttack (-14.1), Dhenkanal (-13.2), Jajpur (-10.2), Khordha (-6.0), Koraput (-5.6), Malkangiri (-12.5), Puri (-16.4), Rayagada (-2.7) & Sambalpur (-17.5)
- **10 Districts having rainfall more than Normal**
 - Angul (+13.7), Bhadrak (+4.1), Boudh (+30.6), Gajapati (+33.8), Ganjam (+17.9), Kalahandi (+19.9), Kandhamal (+3.1), Nawarangpur (+11.0), Nayagarh (+36.6) & Sonapur (+2.6)

Average Rainfall deviation of the State for the month of July-2004 is **-6.9%**

d) August, 2004

- **7 Districts having Deviation (- 30% to -50 %)**
 - Bolangir (-36.4), Dhenkanal (-31.7), Gajapati (-33.2), Ganjam (-28.3), Nayagarh (-30.7), Nuapada (-47.4) & Sonapur (-36.4)
- **3 Districts having Deviation (- 20% to -30%)**
 - Bargarh (-23.1), Kandhamal (-23.8) & Rayagada (-26.8)
- **7 Districts having Deviation (- 20% or Below)**
 - Bhadrak (-1.8), Boudh (-6.5), Deogarh (-16.7), Jagatsinghpur (-4.6), Keonjhar (-4.3), Khordha (-19.4) & Koraput (-10.5)
- **10 Districts having rainfall more than Normal**
 - Angul (+25.2), Balasore (+19.6), Cuttack (+13.9), Jajpur (+17.7), Jharsuguda (+28.8), Kalahandi (+31.0), Kendrapara (+33.7), Malkangiri (+6.3), Mayurbhanj (+5.7), Nawarangpur (+0.4), Sambalpur (+25.3) & Sundargarh (+0.7)

Average Rainfall deviation of the State for the month of August-2004 is **-0.3%**

e) **September, 2004**

- **21 Districts having Deviation (- 30% to -50 %)**
 - Angul (-43.5), Bargarh (-59.9), Bolangir (-55.8), Boudh (-46.6), Deogarh (-61.1), Dhenkanal (-48.5), Gajapati (-39.0), Ganjam (-47.3), Jagatsinghpur (-37.7), Jharsuguda (-51.8), Keonjhar (-41.5), Khordha (-41.1), Koraput (-39.4), Malkangiri (-33.7), Nayagarh (-52.5), Nuapada (-54.6), Puri (-39.9), Rayagada (-62.3), Sambalpur (-37.5), Sonepur (-47.7) & Sundargarh (-44.1).
- **3 Districts having Deviation (- 20% to -30%)**
 - Jajpur (-22.1), Kalahandi (-24.8) & Kandhamal (-21.6)
- **6 Districts having Deviation (- 20% or Below)**
 - Balasore (-4.8), Bhadrak (-18.9), Cuttack (-8.3), Kendrapara (-11.6), Mayurbhanj (-12.8) & Nawarangpur (-15.0)

Average Rainfall deviation of the State for the month of September-2004 is **-37.3%**.

f) **October, 2004**

- **1 Districts having Deviation (- 30% to -50 %)**
 - Boudh (-36.3)
- **4 Districts having Deviation (- 20% or Below)**
 - Deogarh (-5.5), Keonjhar (-9.8), Nuapada (-14.0) & Sundargarh (-13.3).
- **25 Districts having rainfall more than Normal**
 - Angul (+9.3), Balasore (55.6), Bargarh (+1.1), Bhadrak (+26.5), Bolangir (+31.1), Cuttack (+92.8), Dhenkanal (+53.1), Gajapati (+59.5), Ganjam (+13.3), Jagatsinghpur (+73.9), Jajpur (+71.1), Jharsuguda (+56.5), Kalahandi (+64.7), Kandhamal (+63.4), Kendrapara (+96.9), Khordha (+36.0), Koraput (+23.6), Malkangiri (+58.3), Mayurbhanj (+36.6), Nawarangpur (+24.4), Nayagarh (+19.2), Puri (+28.7), Rayagada (+46.4), Sambalpur (+12.3) & Sonepur (38.4).

Average Rainfall deviation of the State for the month of October-2004 is **-23.3%**.

g) **Cumulative Rainfall Position**

The District wise deviation of cumulative Rainfall from May to October during monsoon 2004 was as follows.

- **2 Districts having Deviation (- 30% to -50 %)**
 - Deogarh (-39.6) & Nuapada (-34.0)
- **9 Districts having Deviation (- 20% to -30%)**
 - Bargarh (-29.7), Dhenkanal (-24.2), Ganjam (-23.2), Jagatsinghpur (-21.7), Keonjhar (-24.9), Khordha (-21.6), Puri (-25.1), Sonepur (-22.5) & Sundargarh (-28.1).
- **13 Districts having Deviation (- 20% or Below)**

- Angul (-3.9), Bhadrak (-4.7), Bolangir (-18.6), Boudh (-6.6), Gajapati (-3.1), Jharsuguda (-16.4), Kandhamal (-4.5), Koraput (-2.7), Mayurbhanj (-17.1), Nayagarh (-14.0), Rayagada (-16.1) & Sambalpur (-12.8).
- **6 Districts having rainfall more than Normal**
 - Balasore (+11.1), Jajpur (+0.5), Kalahandi (+30.9), Kendrapara (+0.6), Malkangiri (+8.5) & Nawarangpur (+14.4).

Average Cumulative Rainfall deviation of the State from May to October-2004 is **-10.3%**.

Generally 58 lakh hectares of land is used for Kharif cultivation in the state. Out of which, 42 lakh hectares are used for paddy cultivation and the rest 16 lakh hectares for non paddy and other crops. Normally by end of July 28.51 lakh hectares of land is covered by paddy cultivation. By the end of September'04, the state has recorded coverage of 37.58 lakh hectares of paddy cultivation. Paddy transplantation has been made in 17.02 lakh hect with 19.40 lakh hect of land beushaned, where paddy sowing (Broadcasting) done.

After crop cutting experiment it was observed that in some pockets of the state, there was a crop loss of 50% or more for Kharif crop due to inadequate and deficient rainfall. On the basis of the crop cutting experiment reports of the Collectors the state Government had declared 1615 villages under 40 blocks and 10 wards under 5 ULBs of 10 districts (**Angul, Bargarh, Bolangir, Deogarh, Ganjam, Jharsuguda, Puri, Sambalpur, Sonapur and Sundargarh**) as drought affected areas having sustained crop loss of 50% and above during the year, 2004 (Kharif). The declaration of drought has been made by the Government vide notification no. 15481 dt. 11.04.05. The district-wise crop loss figure is given at **Table-7**.

Interventions

- a) Under the Chairmanship of Hon'ble Chief Minister a review meeting was taken on 30.6.04 to assess the crop situation with a direction to concerned Department for taking appropriate steps.
- b) Under the Chairmanship of Hon'ble Minister, Revenue a series of meetings were held on 28.6.04, 15.7.04 and 20.7.04 to take the stock of the situation.
- c) Under the Chairmanship of Agriculture Production Commissioner, a crop weather watch group had conducted weekly review meeting to monitor the situation and issued instructions to Collectors for appropriate action.

- d) In order to tide over the situation resulting out of scanty and inadequate rainfall in the initial Kharif period, instructions for taking up all precautionary measures were issued to Collectors to save the standing crops.
- e) The Government had directed the Water Resources Department to irrigate the Crop land from small and medium water reservoir.
- f) 1593 defunct LIPs were repaired within Rs. 5000/- each and 108 nos. LIPs @ Rs. 10000/-. The district-wise details of revival LIPs are shown in **Table-8 and 9**.
- g) For renovation of MIPs a sum of Rs. 50.00 lakh had been provided to Water Resources Department.
- h) All the Districts had been provided with seeds.
- i) All Collectors had been instructed to provide Food Assistance through Cards so that food security is ensured in distress pockets.
- j) An amount of Rs.99.06 lakh had been provided towards input subsidy for the affected farmers.

**NO. OF VILLAGES HAVING CROSSLSS OF 50% AND ABOVE
KHARIF-2004**

Sl.No	Name of the District	No. of Blocks/ULBs in the District		No. of Blocks/ULBs affected		No of GPs in the District	No. of G.Ps containing affected villages	No of villages in the District	No. of villages sustained croploss								Total		G. Total	Remarks
		Blocks	ULBs	Blocks	ULBs				Non-irrigated				Irrigated				Village	Ward		
									50% to 74%		75% above		50% to 74%		75% above					
1	2	3	4	5	6	7	8	9	Village	Ward	Village	Ward	Village	Ward	Village	Ward	18	19	20	21
1	Angul	8	3	2		209	6	1910	18	0	0	0	0	0	0	0	18	0	18	
2	Balasore	12	4			289		2952									0	0	0	No croploss above 50%
3	Bargarh	12	3	4		248	15	1207	43	0	1	0	0	0	0	0	44	0	44	
4	Bhadrak	7	2			193		1311									0	0	0	No croploss above 50%
5	Bolangir	14	4	4		285	33	1794	95	0	0	0	0	0	0	0	95	0	95	
6	Boudh	3	1			63		1186									0	0	0	No croploss above 50%
7	Cuttack	14	4			342		1950									0	0	0	No croploss above 50%
8	Deogarh	3	1	1		60	7	875	7	0	0	0	0	0	0	0	7	0	7	
9	Dhenkanal	8	3			199		1215									0	0	0	No croploss above 50%
10	Gajapati	7	2			129		1619									0	0	0	No croploss above 50%
11	Ganjam	22	18	18	4	475	146	3212	175	3	218	1	373	1	77	10	843	15	858	
12	Jagatsinghpur	8	2			194		1288									0	0	0	No croploss above 50%
13	Jajpur	10	2			280		1778									0	0	0	No croploss above 50%
14	Jharsuguda	5	3	1		78	18	348	45	0	0	0	6	0	0	0	51	0	51	
15	Kalahandi	13	3			273		2236									0	0	0	No croploss above 50%
16	Kandhamal	12	2			153		2546									0	0	0	No croploss above 50%
17	Kendrapara	9	2			230		1540									0	0	0	No croploss above 50%
18	Keonjhar	13	4			286		2122									0	0	0	No croploss above 50%
19	Khurda	10	5			168		1551									0	0	0	No croploss above 50%
20	Koraput	14	4			226		2028									0	0	0	No croploss above 50%
21	Malkangiri	7	2			108		1045									0	0	0	No croploss above 50%
22	Mayurbhanj	26	4			382		3950									0	0	0	No croploss above 50%
23	Nawarangpur	10	2			169		901									0	0	0	No croploss above 50%
24	Nayagarh	8	2			179		1695									0	0	0	No croploss above 50%
25	Nupapara	5	2			109		663									0	0	0	No croploss above 50%
26	Puri	11	4	1		230	20	1715	87	0	24	0	0	0	0	0	111	0	111	
27	Raygada	11	3			171		2667									0	0	0	No croploss above 50%
28	Sambalpur	9	5	6	1	148	26	1322	33	1	2	0	0	0	0	0	35	1	36	
29	Subarnapur	6	3	2		96	20	959	191	0	0	0	0	0	0	0	191	0	191	
30	Sundargarh	17	4	3		262	24	1764	202	0	12	0	6	0	0	0	220	0	220	
GRAND TOTAL		314	103	42	5	6234	315	51349	896	4	257	1	385	1	77	10	1615	16	1631	

[Table-7]

Position of Repair of LIPs within Rs.5000/- as on 31.03.2005							
						(Rs. In lakhs)	
Sl. No.	Name of the District	No. of LIPs proposed to be repaired within Rs. 5000/-	Estimated cost of repair	Amount released by Collector		Nos. repaired	Remarks
				Number	Amount		
1	Balasore	168	8.4	168	8.4	168	
2	Bhadrak	201	10.05	201	10.05	190	
3	Jagatsinghpur	112	5.6	112	5.6	112	
4	Cuttack						
5	Jajpur	138	6.9	138	6.9	138	
6	Kendrapara	235	11.75	235	11.75	199	
7	Puri	40	2	40	2	40	
8	Khordha	55	2.75	55	2.75	55	
9	Nayagarh	60	3	36	1.8	36	
10	Mayurbhanj	104	5.2	104	4.97	104	
11	Dhenkanal	60	5.23	41	3	41	
12	Angul	51	2.55	25	1.2	25	
13	Keonjhar	24	1.2	24	1.2	24	
14	Sambalpur	10	0.5	10	0.5	10	
15	Bargarh	28	1.4	28	1.362	28	
16	Jharsuguda	7	0.35	7	0.35	6	
17	Deogarh	5	0.25	3	0.15	3	
18	Sundargarh	38	1.9	0	0	38	
19	Rayagada	0	2.8	0	0	0	
20	Ganjam	155	7.75	155	7.75	155	
21	Gajapati	21	1.05	21	1.05	21	
22	Kandhamal	17	0.85	17	0.85	17	
23	Boudh						
24	Kalahandi	60	3	63	3.15	63	
25	Nuapada	40	2	15	0.75	15	

26	Bolangir	52	2.26	52	2.257	52	
27	Sonepur	53	2.65	53	2.65	53	
28	Koraput						
29	Nawarangpur						
30	Malkangiri						
Total		1734	91.39	1603	80.439	1593	

[Table-8]

Position of Repair of LIPs within Rs.5000/- to Rs.10000/- and above and Handed over to Pani Panchayata as on 31.03.2005

Sl. No.	District	No. of LIPs Proposed to be repaired		Estimated cost repair for projects		Amount released by Collector for col. 4	Nos. repaired out of col.4
		within Rs. 5000/- to Rs. 10000/-	more then Rs. 10000/-	within Rs. 5000/- to Rs. 10000/-	more then Rs. 10000/-		
1	Balasore	75	128	6.13	15.43	1.826	22
2	Bhadrak	0	14		1.65		
3	JS Pur	7	2	0.8	14.64		
4	Cuttack	8	73	0.7	12.04		
5	Jajpur	0	76		11.68		
6	Kendrapara	0	0				
7	Puri	0	12		1.8		
8	Khordha	9	16	0.9	3.27		
9	Nayagarh	12	40	1.13	13.56		
10	Mayurbhanj	43	15	4.22	2.75	4.22	43
11	Rayagada	0	18		7.2		
12	Gajapati	6	0	0.5		0.5	6
13	Ganjam	0	0				
14	Kandhamal	0	33		96.34		
15	Boudh	0	0				
16	Dhenkanal	0	0				

17	Angul	0	0				
18	Keonjhar	0	9	1.35			
19	Sambalpur	0	1		0.15		
20	Bargarh	0	0				
21	Jharsuguda	0	0				
22	Deogarh	7	0	0.74		0.7	7
23	Sundargarh	0	0				
24	Koraput	0	0				
25	Nawarangpur	0	0				
26	Malkangiri	0	0				
27	Kalahandi	58	0	0.8			
28	Nuapada	0	0				
29	Bolangir	30	0	1.78		1.784	30
30	Sonepur	0	7		1.05		
Total		255	444	19.05	181.56	9.03	108

[Table-9]

Assistance from Government of India

The State Government had informed Government of India about moisture stress condition on 19.7.04 and 23.7.04 with a request to provide 2.00 LMT of food grain (balance requirement for flood'03) for FFWP. Further the Government of India had also been intimated to sanction a tune of Rs. 29.85 crore towards matching cash component.

On the request of State Government, Government of India has sanctioned and released 1.00 LMT of food grain for FFWP in the flood-affected districts of 2003.

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CHAPTER-IV

Other Calamities

1. Fire Accident

Fire accidents occurred mostly during summer. Most of the people of the State are socio-economically vulnerable and lived in thatched houses, which are prone to fire. Thus fire accidents cause huge loss to the property of poor people.

The District wise loss of life and property due to fire accidents during the period under report is at **Table-10 & 11**

Death Due to Fire Accident

District	Sl.	Name of the Deceased	Age	Village/PS	Date of Death
Bhadrak	1.	Sumitra Sahoo @ Santilata		Talanga	12.09.04
Dhenkanal	2.	Basanta Dehuri		Kalada, PS- Kamakhyanagar	02.01.05
	3.	Chagali Dehuri		Kalada, PS- Kamakhyanagar	02.01.05
Keonjhar	4.	Laxmidhar Das		Bankia, Tukuna	05.05.04
Nayagarh	5.	Geetanjali Panigrahi	18	Nadighara, Tdr-Nayagarh	18.10.04
Rayagada	6.	Pratika Trinath	35	Dumbaguda, Tdr-Nayagarh	17.12.04
Sambalpur	7.	Manguli Sabar	10	Bisakhinda, PS- Sasan	15.02.05
Subarnapur	8.	Mamamata Behera	10	Purusottampalli, Tdr.- Biramaharajpur	07.03.05
	9.	Srabani Behera	5	Purusottampalli, Tdr.- Biramaharajpur	07.03.05

[Table-10]

Sl	Name of the District	No. of fire accident during the year	No. of villages affected	No. of families affected	No. of Institutions affected	Approximate value of property lost by fire							Total amount of relief given to affected families			Total amount of relief given to institutions		Total amount of relief given U/S 140	Total of Col.- 15 to 20	
						Individual	Institutions	State Govt.	Local Bodies	Total (7 to 10)	Died	Injured	No. of cattle dead	Cash	Forest materials	Other	Cash			Forest material
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	Angul	226	226	463		5080200				5080200		1	1	311350						311350
2	Balasore	574	340	639		13096000				13096000				701350						701350
3	Bargarh	136	136	83		904600				904600				47350						47350
4	Bhadrak	359	274	502		13571000				13571000	1			483900						483900
5	Bolangir	56	56	175		1398200				1398200				188700						188700
6	Boudh	101	98	321		2976550				2976550			Goat-4	226637						226637
7	Cuttack	300	300	556		10823500			76000	10899500			3	319500						319500
8	Deogarh	38	15	38		150000				150000				23700						23700
9	Dhenkanal	192	188	387		5211500				5211500	2			468150						468150
10	Gajapati	61	61	194		1391000				1391000				135650						135650
11	Ganjam	408	408	1895		19148750				19148750				1320232						1320232
12	Jagatsinghpur	223	213	267		4273500				4273500			2	286500						286500
13	Jajpur	355	319	355		5311500				5311500			5	322800						322800
14	Jharsuguda	3	3	3		24000				24000				3000						3000
15	Kalahandi	20	20	34		75690				75690		8		8000						8000
16	Kandhamal	207	137	212		3041550				3041550				277000						277000
17	Kendrapara	310	247	357		8111500				8111500				404150						404150
18	Keonjhar	189	189	363		3660600				3660600	1			262550						262550
19	Khurda	241	241	765		13254300				13254300		1	Goat-8 sheep-16	826000		742				826742
20	Koraput	209	132	209		1463520				1463520				80100						80100
21	Malkangiri	63	54	63		865607				865607										0
22	Mayurbhanj	357	249	357		5929700				5929700				180250						180250
23	Nawarangpur	125	107	144		1160870				1160870				69550						69550
24	Nayagarh	130	130	751		5615300				5615300	1			850844						850844

25	Nupapara	7	7	18		156000				156000									0	
26	Puri	291	290	680		8995700				8995700		13	395450						395450	
27	Raygada	66	66	192		1218000				1218000	1		299000						299000	
28	Sambalpur	54	52	83		513850				513850	1		11100						11100	
29	Subarnapur	105	105	330		4447980				4447980	2	2	22	451650		100000			551650	
30	Sundargarh	2	2	2		90000				90000									0	
TOTAL		5408	4665	10438	0	141960467	0	0	76000	142036467	9	12		8954463	0	100742	0	0	0	9055205
Or say Rs. in lakh						1419.60				1420.36				89.54		1.01				90.55

[Table-11]

2. Hailstorm

During, 2004, 193 villages of 13 districts were affected due to hailstorms and whirlwinds. Rs.17.24 lakhs and Rs.3.57 lakhs out of CRF were released in favour of Collector Bargarh and Sambalpur respectively for repair / restoration of public utilities damaged due to such hailstorms. The District wise details is at **Table-12**

Hail Storm / Whirlwind (2004-05)

Amount in lakhs

Sl.	District	Nature of Calamity	Date of Occurance	Name of Tahasil/Block Affected	No. of Villages Affected	Casualty/Injured		Approximate Loss Of Property (Amount in Lakh)				Relief Assistance Provided		
						Human	Cattle	Individual		Govt		Shelter	GR in Kind	HBA
								No	Amount	No	Amount			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Bargarh	Whirl Wind	23.01.2004	Sohela & Bhatli	20	-	-	-	135.0	NR	NR	NR	NR	17.248
2	Sambalpur	-do-	15.05.2004	Rengali	1	-	-	NR	NR	NR	NR	NR	NR	2.788
3	-do-	-do-	31.05.2004	Rengali	6	-	-	NR	NR	NR	NR	NR	NR	
4	-do-	-do-	21.07.2004	Kuchinda	1	-	-	NR	NR	NR	NR	NR	NR	0.784
5	Nayagarh	Hail storm	11.03.2005	-	-	-	-	-	-	-	-	-	-	-
6	Sundergarh	-do-	11.03.2005	Khunta	2	-	-	82	53.22	31	NR	NR	NR	-
7	Balasore	-do-	11.03.2005	Jaleswar	31	-	-	201	NR	6	NR	NR	NR	-
8	Ganjam	-do-	11.03.2005	Kansi	-	-	-	14	NR	1	NR	NR	NR	-
9	Jharsuguda	-do-	11.03.2005	Laikera	20	-	-	35	87.05	NR	NR	NR	NR	-
10	Baragarh	-do-	11.03.2005	Gaisilat	7	-	-	NR	NR	NR	NR	NR	NR	-
11	Mayurbhanj	-do-	11.03.2005	Badasahi, Sanykguda, Baripada, Raruan	15	-	-	80	NR	3	NR	NR	NR	-
12	Khorda	-do-	12.03.2005	Jankia PS	2	-	-	NR	NR	NR	NR	NR	NR	-
13	Puri	-do-	12.03.2005	Brahmagiri &	41	-	-	107	60.0	NR	NR	NR	NR	-

				Krushnaprasad										
14	Deogarh	-do-	12.03.2005	Kadalipal, Deogarh	1	-	-	NR	NR	NR	NR	NR	NR	-
15	Bolangir	-do-	12.03.2005	Loisingha	12	-	-	349	NR	NR	5	0.15	NR	-
16	Sambalpur	-do-	12.03.2005	4 blocks	41	-	-	NR	NR	NR	NR	NR	NR	-
17	Sonepur	-do-	12.03.2005	-	-	-	-	-	-	-	-	-	-	-

[Table-12]

3. Lightning

During 2004, 278 no. of persons died due to lightning. Ex-gratia assistance @Rs.10,000/- per each had been provided to the next of kin of the deceased persons. The list of persons died due to lightning is shown at Table-13.

Death due to Lightning- 2004

Sl. No.	District	Name of the Deceased	Age	Village	Block / Tahasil / Police Station	Date of Death
1	2	4	5	6	7	9
1	Angul	Sujit Ku. Naik		Talaberena	Bantala	6.7.04
2	do	Kumari Mami Behera d/o Sanu		Katarapada	Samal	16.5.04
3	do	Aleicha Behera w/o Gokula		Papasara	Handapa	11.6.04
4	do	Kumari Nirupama Bhokta d/o Champeswar		Baghuakata	Athamallik	02.7.04
5	do	Kuna Nayak s/o Hadi		Pechamundi	Pallahara	28.5.04
6	do	Himansu Sekhar Nayak s/o Bhagirathi		Kunjam	Pallahara	02.7.04
7	do	Binod Munda s/o Dukha		Sankhamura	Pallahara	22.07.04
8	do	Pakili Kisan w/o Kastu		Padapasi	Khamar	02.08.04
9	do	Ranulala Pradhan		Karadasingha	Purunakote	24.9.04
10	do	Lokanath Naik		Kaintaragarh	Athamallik	1.10.04
11	do	Jhunturu Behera		Dahibar	Chhendipada	14.9.04
1	Balasore	Bhagaban Behera s/o		Bhimpur	Balasore	08.4.04
2	do	Banabihari Giri s/o		Bhimpur	Balasore	08.4.04
3	do	Ganesh Hazira s/o		Khadu	Balasore	02.4.04
4	do	Guhin Behera w/o		Gadabhittar	Jaleswar	17.4.04
5	do	Paresh Ch Das s/o		Raibania	Jaleswar	17.06.04
6	do	Jaganath Jena S/o Bikram		Rupakanda	Jaleswar	12.06.04
7	do	Urmila Mallick d/o Srustidhar		Chhanua	Basta	11.04.04
8	do	Basanta Das s/o Ramachandra		Chasipada	Basta	24.05.04
9	do	Binapani Nayak d/o Harihar		Nalbahar	Basta	31.07.04
10	do	Surendra Ghadei		Jairampur	Bhograi	16.8.04
11	do	Jagannath Mohanty		Isanmzndali	Soro	11.6.04
12	do	Laxman Prusti		Binjha	Basta	18.8.04

13	do	Narendra Jena		Anderai	Bikhand	24.5.04
14	do	Shantilata Parida		Agnipur	Dungura	28.6.04
15	do	Subasini Bindhani		Sana Attta	Nilgiri	20.7.04
16	do	Srihari Das		Begampur	Naraharipur	18.8.04
17	do	Guhin Behera		Gadabhittar	Raibania	17.06.04
1	Bargarh	Kanu Sahu w/o Lochan		Brahman Mal	Padmapur	11.06.04
2		Janak Amari w/o Ajamil Amari		Saradhapali	do	08.07.04
1	Bhadrak	Sumati Nayak w/o Madan		Sana Banasta	Bhandari Pokhari	18.5.04
2	do	Kalandi Rout s/o Prafulla		Talanga	Bhadrak	06.7.04
3	Do	Sukanta Mahakud s/o Agani	20	Barsar	Tihidi	16.8.04
4	do	Bhaskar Ch.Nayak s/o Duryodhan	32	Fatepue	Tihidi	18.8.04
5	do	Ram Ch. Das s/o Bhoi		Geudunipokhari	Chandbali	16.8.04
6	do	Dhaneswar Jena s/o Bhagirathi		Jagula	Bansada	19.8.04
7	do	Jagatabandhu Panigrahi s/o Raghu	50	Tulamtula	Basudevpur	15.5.04
8	do	Tukuna Munda s/o Raghu		Jalanga	Bhadrak	19.7.2004
9	do	Sk.Zilla Haque s/o Sk Fakirrudin		Bishnupurbindha	Bhadrak	19.7.04
10	do	Jatindranath Jena s/o Ramesh		Sailendrapali	Bansada	27.08.04
11	do	Sarat Rana s/o Purusottam		Narayanpur	Dhamnagar	19.09.04
12	do	Hrusikesh Rana s/o Sarat		do	do	19.09.04
13	do	Dolagobinda Mohapatra s/o Nirakar		Hatpur	Bansada	19.09.04
1	Bolangir	Samarat Suna s/o Kalarama		Bhuslad	Titilagarh	25.07.04
2	do	Duryodhan Bariha s/o Jugal		Tamian	Patnagarh	07.07.04
3	do	Krushna Das s/o Pitambar		Fasad	Loisingha	03.06.04
4	do	Sruti Das s/o Gopal		Fasad	Loisingha	03.06.04
5	do	Bui Bhoi w/o Mahendra		Pendimunda	Tusura	20.07.04
6	do	Muktesan Kuanr		Brahmani	Dunguri	21.7.04
7	do	Somanath Suna		Manigaon		25.7.04
1	Boudh	Sripati Konhar s/o Hrushi		Alikud	Kantamal	22.04.04
2	do	Sambhu Dipa s/o Jahara		Balipur	Harabhanga	10.6.04
3	do	Sumant Bagarty s/o Bibhisan		Samkupa	Kantamal	11.06.04
4	do	Rabindra Bhoi s/o Digambar		Routabahal	Boudh	26.07.04
1	Cuttack	Chandan Nayak	3	Kantapada	Govindpur	1.7.04

2	do	Pravati Swain	35	Kulapohal	Govindpur	1.7.04
3	do	Priyanka Swain	5	Kulapohal	Govindpur	1.7.04
4	do	Sabani Marandi		Mahangapada		1.7.04
5	do	Laxmidhar Bhoi	51	Baharana	Niali	2.7.04
6	do	Pratap Behera	25	Tunapur	Baramba	7.7.04
7	do	Daitari @ Bairagi Mallick		Bajapura	Mahanga	7.3.04
8	do	Sanjulata Samal	28	Dhulanpur	Banki	10.6.04
9	do	Mir. Manwar Ali	20	Narendrapur	Salepur	19.7.04
10	do	Arun Udaya Behera s/o Akrur		Anandpur	Banki	17.05.04
11	do	Sudarsan Sahu s/o Satyabadi		Kothapatana	Baideswar	31.03.04
12	do	Chaitanya Biswal		Pathapur	Banki	31.5.04
13	do	Birendra Das		Birala	Tangi-Chowdar	22.7.04
14	do	Ganesh Mallick		Kasarda	Niali	2.8.04
1	Deogarh	Jaykrushna Sahu s/o Nabaghan		Kadalipal	Deogarh	28.05.04
1	Dhenkanal	Jambira Tiria s/o Rabindra	25	Pitaladhua	Kamkhyanagar	17.5.04
2	do	Debendra Tiria s/o Sudarsan	44	Maruabili	do	17.5.04
3	do	Namita Nayak w/o Nirmal	19	Kandhabol	do	16.5.04
4	do	Sambari Behera w/o Harekrushna		Mundideuli	do	05.4.04
5	do	Kulamani Mohaptra s/o Narayan		Chitalpur	Hindol	16.05.04
6	do	Malati Behera		Marthapur	Bhuban	17.5.04
7	do	Juli Singh		Marthapur	Bhuban	17.5.04
8	do	Mani Sahu s/o Sudarson		Kalada	Parjang	08.06.04
9	do	Radheshyam Sahu s/o Mani		Kalada	Parjang	08.06.04
10	do	Bhaskar Munda s/o Laxman		Kankana	Kamkhyanagar	09.06.04
11	do	Brundaban Singh s/o Harihar		Parajang Kuturia	do	19.07.04
12	do	Bulu Singh s/o Baira		Kankadahad	do	10.07.04
13	do	Sarang Naik s/o Sikhar		Gobindprasad	Dhenkanal	07.07.04
14	do	Matab Mallick s/o Keshab		Kotgara	Kamkhyanagar	20.07.04
15	do	Chhabi Mallick s/o Chaitanya		Baulpur	Dhenkanal	02.08.04
16	do	Sanjay Naik s/o Bhimasen		Rangathali	Parjang	10.07.04
17	do	Gobardhan Mallick s/o Jatadhari		Goradapal	Gondia	20.07.04
18	do	Bimal Nath		Mahapada	Gondia	29.9.04
19	do	Dillip Mallik		Kirtanpur	Bhuban	4.9.04

20	do	Sipi Mallik		Kirtanpur	Bhuban	4.9.04
21	do	Kalpana Rout		Kirtanpur	Bhuban	4.9.04
22	do	Batua Sahoo		Nabakasipur		1.10.04
23	do	Dukhabandu Behera		Tangarpada		18.9.04
24	do	Gadadhar Sahoo		Gandanali		1.10.04
25	do	Kambhu Dehury		Padaradihi		1.10.04
26	do	Sairindri Sahoo		Kankili		1.10.04
27	do	Rajani Dehury		Gangadhar Prasad		8.6.04
28	do	Achuta Dehury		Gangadhar Prasad		8.6.04
29	do	Saraswati Sahoo		Kankili		1.10.04
	Gajapati	Nil				
1	Ganjam	Trinath Gouda s/o Bhikari		Gouradeipur	Kodala	10.06.04
2	do	Ladu Kishore Pradhan s/o Hadu		Kalinjanuapali	Buguda	27.07.04
3	do	Kora Gouda s/o Manga		Jharipadar	Digapahandi	03.04.04
4	do	Hari Sethi s/o Arjuna		Laxminarayanpur	do	15.05.04
5	do	Binod Gouda s/o Raghu		Bhagabanpur	do	09.06.04
6	do	Abhi Mallik s/o Udhab		Khairapadar	do	10.06.04
7	do	Bishnu Malik s/o Musia		do	do	10.06.04
8	do	Minati Nayak d/o Matia		Panad	do	02.07.04
9	do	Bipra Charan Panda s/o Gopal		Pandurukhali	do	02.07.04
10	do	Jhunu Chatei w/o Bisunu		Manikyapur	Surada	12.05.04
11	do	Sanjukta Nahak w/o Prakash		Padhala	Aska	02.07.04
12	do	Rashmita Majhi d/o Bansi		Barida	Khallikote	03.04.04
13	do	Kaintha Nayak s/o Sudarsan		Kundurugochha	Bhanjanagar	08.07.04
1	Jagatsinghpur	Hrusikesh Behera s/o Nagendra		Adhangada		27.07.04
1	Jajpur	Pravas Ranjan Padhiari		Bari	Bari	25.05.04
2	do	Kailash Ch. Mallick		Bari	Bari	25.05.04
3	do	Kulamani Nayak		Haripur	Sukinda	30.07.04
4	do	Ramakant Mahant s/o Chaitanya		Lembo	Sukinda	1.10.04
5	do	Jema Munduri w/o Shyam		Patpur	Sukinda	1.10.04
1	Jharsuguda	Putuli Pradhan		Jatadihi	Kolabira	11.6.04
2		Padu Kishan	30	Khuntamal	Laikera	2.8.04
3		Bidyadhar Khadia	11	Laikera	Laikera	18.9.04

1	Kalahandi	Chandradhway Dora		Goichancha		07.6.04
2	do	Arjun Dora		Goichancha		07.6.04
3	do	Gandharbi Suna		Abuybahal		6.6.04
4	do	Puspalata Nayak		Kachindola		11.5.04
5	do	Rama Dei		Baldiamal		9.7.04
6	do	Raja Majhi		Bhejipadar	Junagarh	21.7.04
7	do	Abhaya Rana		Sripli	Narla	25.7.04
1	Kandhamal	Purna Ch. Bagarty s/o Sadia		Pisi Padar		25.09.04
1	Keonjhar	Dibyarashmi Sahu		Raisuan	Keonjhar	08.06.04
2	do	Andharu Behera		Suakati	Keonjhar	08.06.04
3	do	Biranchi Mohakud		Dimbo	Town	4.8.04
4	do	Lalita Nayak		Badadhanurjayapur	Baria	29.9.04
5	do	Ramani Naik		Chakadiha	Baria	29.9.04
6	do	Madan Mohan Sahoo		Matha	Nandipada	3.10.04
1	Kendrapara	Trilochan Panda s/o Narayana		Eradang Matara		14.04.04
2	do	Babaji Charan Sethi s/o Sanei		Naladiha		24.04.04
3	do	Ajaya Khatua s/o Gangadhar	32	Naladiha	Mohakalpara	06.7.04
4	do	Jadumani Mallik s/o Fagu	62	Anduli	Mohakalpara	08.08.04
5	do	Susanta Khandual s/o Duryodhan	21	Tithi	Mohakalpara	16.08.04
6	do	Ranjitabala Bhuyan w/o Sudhansu	47	Pattraparia	Rajnagar	16.08.04
7	do	Anam Ch.Rout s/o Bhagyadhar	19	Baghua	Rajnagar	18.08.04
8	do	Duryodhan Pani s/o Mayadhar	52	Chinchiri	Rajnagar	18.8.04
9	do	Padmanav Moharana s/o	70	Karandipatana	Marshaghai	26.7.04
10	do	Sachidananda Das s/o Nidhi	52	Garajanga	Marshaghai	01.08.04
11	do	Arjuni Pradhan s/o Bairagi	47	Bhagabanpur	Marshaghai	18.8.04
12	do	Dillip Kumar Rout s/o Muralidhar	36	Bhagabanpur	Marshaghai	18.8.04
13	do	Bairagi Pradhan		Nilikanana	Kendrapara	18.9.04
14	do	Giridhari Palai		Saratala	Patkura	19.9.04
15	do	Dillip Panda		Parakula	Patkura	19.9.04
1	Khordha	Aparti Behera s/o Budhi	37	Badapokharia	Jankia	27.07.04
2	do	Ghana Gagarai	24	Binjhagiri	Chandaka	17.5.04
3	do	Braja Chatar	38	Binjhagiri	Chandaka	17.5.04
4	do	Mamata Pradhan	14	Saliasahi	Bhubaneswar	14.5.04

5	do	Dilip Samantray s/o Jaladhar	17	Bhimpur	Jatni	20.07.04
6	do	Binodini Das d/o Nityananda	8	Gabadihapatna	Bolgarh	03.06.04
7	do	Benudhar Pradhan s/o Loknath	60	Pitapalli	Jatni	09.07.04
8	do	Lokanath Pradhan	5	Saliasahi	Bhubaneswar	14.5.04
9	do	Sukanta Mania	28	Balianta	Balianta	18.9.04
10	do	Bulu Jena	16	Kuaput		21.7.04
11	do	Rabindra Kumar Behera s/o Gourang	20	Kandhagadia	Khurda	20.7.04
12	do	Anita Pradhan w/o Hari Pradhan		Panichhatra	Jankia	05.10.04
1	Koraput	Sunil Guntha		Badapadar	Pattangi	12.5.04
2	do	Simanchala Sahoo		Phapuni	Jeypore	12.5.04
3	do	Sabitri Nayak		Sukhiguda	Borigumma	4.6.04
4	do	Jhitika Khora		Putraghati	GP-Litiguda	25.7.04
5	do	Meena Gouda		Nandigam	Koraput	25.9.04
6	do	Bhima Duari		Bhatkuhudi	Kotpad	11.07.04
7	do	Chandrama Sagaria		Kendupada	Jeypore	14.05.04
8	do	Sunamani Muduli		Bairagipada	Kotpad	01.07.04
9	do	Gangadhar Mahuria		Ankul	Kotpad	07.07.04
10	do	Sanjeev Gambhari		Guali	Kotpad	27.05.04
11	do	Tara Pujari		Guali	Kotpad	27.05.04
12	do	Jaganath Pangi		Deula	Kotpad	27.05.04
13	do	Sebati Chalan		Polligumandi	Pattangi	25.07.04
14	do	Tulabati Pangi w/o Sutam		Maliguda	Pattangi	04.09.04
15	do	Keru Jani s/o Samundu		Bhitra marichalamali	Koraput	29.09.04
16	do	Pitambar Jani s/o Dhanamoti (Mother)		do	do	29.09.04
17	do	Keshab Jani h/o Shanmoti		do	do	29.09.04
18	do	Kandu Nayak h/o Chachorni		Bhitra Bhajaput	Pottangi	29.09.04
1	Malkangiri	Somanath Pujari s/o Dambaru	68	Dhaudagada	Mathili	5.4.04
2	do	Jagannath Hantal s/o Karu	27	Pedawada	Malkangiri	5.4.04
3	do	Guru Nayak s/o Kamulu	42	Chittapari-II	Chitrakunda	3.7.04
4	do	Ghenu Hantal	55	Nilapari	Chitrakunda	9.11.04
1	Mayurbhanj	Salge Murmu		Gourchandrapur	Sarat	27.5.04
2	do	Bewla Patra		Bholagadia	Khunta	11.5.04

3	do	Surendra Tudu		Brahmapur	Badasahi	17.8.04
4	do	Suhagi Majhi		Patisari	Badasahi	17.8.04
5	do	Karunakar Behera		Jadia	Baisinga	16.8.04
6	do	Shyam Singh		Deulia	Badasahi	17.8.04
7	do	Kali Charan Mahanta		Silda	Morada	3.8.04
8	do	Pana Marandi		Balijhari	Morada	17.6.04
9	do	Dama Soren	11	Kantia	Saliapada	23.5.04
10	do	Ku.Jasmati Patra		Panideui	Raruan	22.4.04
11	do	Dasmat Soren	16	Kandalia	Bangiripasi	29.9.04
12	do	Nandi Naik	40	Nandachua		27.9.04
13	do	Gurubari Baskey	43	Lege Panake	Bisoosi	27.9.04
14	do	Sadananda Nayak		Bangiripasi		21.4.04
15	do	Birendra Nath Sahoo		Arjunbaria	Badasahi	12.7.04
16	do	Purneswari Mohanta		Sujukala	Bahalda	18.5.04
17	do	Raju Dehuri		Vagalpur	Baisinga	17.8.04
18	do	Kanda Tudu		Jagannathpur	Betanati	19.9.04
19	do	Sudam Ch. Murmu		Badafeni	Khunta	1.10.04
20	do	Banabehari B Nayak		Purunapani	Rairangpur	22.4.04
1	Nawarangpur	Hagadhu singh Sardar				27.4.04
2	do	Keshab Mali	24	Dongariguda	Umerkote	27.4.04
3	do	Mangalsen Bhotra		Danaguda	Nawrangpur	12.5.04
4	do	Lalit Botra		Danaguda	Nawrangpur	12.5.04
5	do	Banuram Gouda		Balenga	Kodinga	6.6.04
6	do	Balamati Gouda		Balenga	Kodinga	6.6.04
7	do	Jamuna Bhotra	22	Chatahandi	Kodinga	1.4.04
8	do	Jagadish Sarkar	55	Dongariguda	Umerkote	27.4.04
9	do	Manamati Gouda	30	Karagam	Dabugam	28.5.04
10	do	Kumari Tova Pujari	12	Architguda	Dabugam	28.6.04
11	do	Kumari Manmati Bhatra	18	Kujaguda		21.7.04
12	do	Dalimba Bhatra	25	Baramasi	Kodinga	21.7.04
13	do	Madhu Bhotra s/o Bhagat	40	Saraguda	Nawarangpur	25.09.04
14	do	Bhibisen Bhatra s/o Samdas	30	Sandaibhata	Nawarangpur	13.09.04
15	do	Jagabandhu Bhotra s/o Makaranda	45	Sankarada	Kodinga	14.09.04

1	Nayagarh	Jamuna Khilar		Nandighare	Nayagarh	24.4.04
2	do	Kailash Ch. Swain	35	Wallipur	Dasapallah	7.6.2004
3	do	Panchu Patra		Kalapangi	Khandapara	15.5.04
4	do	Gajendra Nayak		Lodhachua	Ranpur	22.7.04
5	do	Sandhyarani Bisoi		Chaupalli	Khandapara	22.7.04
6	do	Balabhadra Dalabehera		Haripur	Nayagarh	27.7.04
7	do	Basanti Jena		Kakalama	Nayagarh	27.7.04
8	do	Saibani Naik		Jiripada	Ranpur	6.7.04
9	do	Jhuni Naik		Jiripada	Ranpur	6.7.04
10	do	Chhabi Swain		Khandapara	Khandapara	7.7.04
11	do	Bipibni Bihari Pradhan		Kumbharpada	Khandapara	3.7.04
12	do	Sorojini Pradhan		Kumbharpada	Khandapara	3.7.04
13	do	Basanta Pradhan s/o Sanatan	35	Kandha Khalmanda	Nuagaon	29.09.04
14	do	Birendra Kumar Sahu s/o Raghunath	34	Kunjabaragarh	Daspalla	19.09.04
15	do	Prasanna Kumar Behera s/o Raghunath	40	do	do	19.09.04
16	do	Bhima Naik s/o Nath	25	Jakeda	Nuagaon	29.09.04
17	do	Hunkari Moharana s/o Sania	34	Kandha Khalmanda	do	29.09.04
18	do	Dayanidhi Pati H/O Chayya		Similisahi	Nayagarh	01.10.04
19	do	Gitanjali Panigrahi		Nadighora	Sarankul	17.10.04
20	do	Antarayami Muduli		Karalapada	Gania	1.10.04
1	Nuapada	Daumani Sabar		Dandmar	Komna	30.03.04
1	Puri	Lisa Behera		Binayakpur	Pipili	02.08.04
2	do	Pratima Baral		Olasami	Nimapara	02.08.04
3	do	Bikash Kandi		Gadsanaput Samil	Kanas	8.10.04
4	do	Banshidhar Palei		Badabenakudi	Brahmagiri	27.7.04
5	do	Rashmi Ranjan Mishra		Talasingha	Pipili	4.8.04
6	do	Rabi Sethy		Goudaranapada	Brahmagiri	28.7.04
1	Rayagada	Muni Kalo Dambuni w/o Purna	23	Gobardhanpur	Bisamkatak	06.06.04
1	Sambalpur	Srikara Pradhan s/o Manbodh		Bamphei	Sambalpur	22.4.04
2	do	Arakhit Sahu s/o Suna		Ballam	Sambalpur	28.4.04
3	do	Gulapi Kisan w/o Sadhu		Maliatikira	Katarbaga	14.5.04

4	do	Dinabandhu Guru s/o Budhuram		Genguti Pali		11.06.04
5	do	Jaiswal Rana s/o Bhagaban	9	Andhari	Jujumara	27.09.04
6	do	Guru Rana s/o Bhagaban	5	Andhari	Jujumara	27.09.04
7	do	Sanjeeb Sahu s/o Pabitra	8	Andhari	Jujumara	27.09.04
8	do	Prafulla Munda s/o Jenga	11	Andhari	Jujumara	27.09.04
9	do	Duryodhan Makar s/o Puran	18	Tihidipalli	Kuchinda	27.09.04
10	do	Yashoda Kalo w/o Pramad	38	Sudbalanda	Jamankira	27.09.04
11	do	Ashamati Nayak		Raghunathpali	Govindpur	19.9.04
12	do	Parvati Oram		Kuntarabahal	Mahulali	2.10.04
1	Sonepur	Santosini Rana w/o Karunakar		Silati	Binka	03.06.04
2	do	Biswamitra Dharua s/o Nrupa		Siali	Binka	25.07.04
3	do	Bhuban Naik s/o Sidheswar		Nuapada	Birmaharajpur	27.07.04
1	Sundargah	Bhaskar Kalo	25	Jaranglo	Bargarh	20.7.04
2	do	Sapna Dandasana	32	Kulabira	Lepripara	20.7.04
3	do	Sakuntala Hati	45	Garjanjore	Hemgiri	23.4.04
4	do	Jogendra Kalo	28	Budelkani	Bhasma	14.5.04
5	do	Banabasi Munda	65	Varagad	Bhasma	15.5.04
6	do	Shravan Ku. Munda	15	Baragad	Bhasma	15.5.04
7	do	Rupi Minz		Jiabahal	Bramanitarang	10.05.04
8	do	Nikolas Tirkey		Arbajharabahal	Bramanitarang	28.05.04
9	do	Subash Dandsena	28	Barbahali	Hemgiri	31.6.04
10	do	Jan Munda	13	Chhidakudar	Bolanga	21.7.04
11	do	Ganesh Rout	35	Lakraghar	Bargarh	17.8.04
12	do	Samuel Dumdung s/o Ignesh	65	Tangrani	Panposh	30.09.04
13	do	Christina Dumdung		Dahijira	Kutra	26.8.04

[Table-13]

4. Heat Wave

Death due to heat wave or sunstroke is a disaster caused by one's exposure to environmental heat and humidity. During the year 2004 Heat wave conditions prevailed in 16 districts of the state from April to June. The district wise no. of human casualties due to sunstroke for the year 2004 is given below in Table-14.

Sl.	Districts	No. of persons
1.	Sambalpur	3
2.	Jharsuguda	1
3.	Angul	1
4.	Dhenkanal	4
5.	Sundargarh	2
6.	Cuttack	3
7.	Kendrapara	6
8.	Jajpur	2
9.	Jagatsinghpur	3
10.	Khurda	3
11.	Nayagarh	3
12.	Puri	2
13.	Balasore	2
14.	Bhadrak	3
15.	Mayurbhanj	1
16.	Ganjam	4
	TOTAL	43

[Table-14]

Steps taken by Government to combat Heat Wave

- Awareness Campaign through electronic & print media was undertaken.
- Life saving medicines, ORS and ice cubes stored in dispensaries. PHCs, CHCs and District headquarter hospitals sufficiently.
- Defective tube wells revived. Arrangements for supply of drinking water through tankers at water scarce pockets were made.
- Jala chhatras were opened by urban local bodies / gram panchayats at market places and bus stands and other congregation points.
- During severe heat wave conditions transport services were rescheduled.
- Working hours were revised for the labourers.
- ESI Dispensaries were kept open to the general public.
- The school hours was revised in view of the heat wave condition.

- Control rooms of the Health Directorate and Districts were functioned round the clock and daily situation was closely monitored from State Control Room.

Drinking Water Problem

Due to acute heat wave conditions from April to May, all the drinking water sources were dried up considerably. As a result, drinking water scarcity problem was noticed in almost all districts. There was huge depletion of ground water level. Water tankers were deployed in scarcity pockets.

An amount of Rs.18.59 crore out of CRF was released to various departments in order to combat drinking water scarcity problems and heat wave condition. The details of interventions to mitigate heat wave conditions are shown at **Table-15**

Funds released out of CRF to various Departments in order to combat water scarcity problem and heat wave conditions for the year 2004-05

1.	Health & Family Welfare Department	-	Rs.2.99 crore has been released out of CRF for the following purpose
a)	Drugs and Medical Consumables	-	Rs.2,21,31,987
b)	IEC Activities	-	Rs.13,55,000
c)	Mobility and Minor Repair	-	Rs.37,00,000
d)	Contingency	-	Rs.26,70,000
2.	F & ARD Department	-	Rs.63.89 lakh has been released towards Veterinary Medicine @ Rs.5000.00 for each dispensary and Rs.1000 for each LI Centre and als IEC activities.
a)	No. of Veterinary Dispensary (540 x Rs.5000 for each Veterinary Dispensary)	-	Rs.27.00 lakh
b)	No. of LACs 2939 x Rs.1000 for each LAC	-	Rs.29.39 lakh
c)	Mobility of Veterinary Doctors and IEC activity	-	Rs.07.50 lakh
	TOTAL	-	Rs.63.89 lakh
3.	RD Department		
a)	Rs.8.30 crore has been released towards installation of 2000 new tube wells in the drinking water scarcity pockets of Rural Areas		
b)	Rs.4.97 crore has been released for the following purpose		
1)	Engagement of hired Mobile Van	-	Rs.117.00 lakh
2)	Engagement of hired Water Tanker	-	Rs.8.40 lakh
3)	Hydro-fracturing of 100 Tube Wells	-	Rs.5.00 lakh

4)	Re-charge pits for 2000 Tube Wells	-	Rs.10.00 lakh
5)	Spare Parts	-	Rs.250.00 lakh
6)	Replacement of Old Riser Pipes	-	Rs.101.70 lakh
7)	Constructions of 1000 nos. of Cattle Vat	-	Rs.4.90
	TOTAL	-	Rs.497.00 lakh
4.	H & UD Department		
a)	Rs.22.50 lakh has been released out of CRF towards installation of 50 New Tube Wells in the water scarcity pockets of Urban Areas		
b)	Rs.9.11 lakh has been released towards installation of 17 water coolers along with storage tanks in 17 important bus terminals (Jharsuguda, Bhubaneswar, Sambalpur, Berhampur, Bolangir, Rourkela, Titilagarh, Bhawanipatna, Cuttack, Rayagada, Angul, Nayagarh, Dhenkanal, Jajpur, Balasore, Sundergarh and Bhadrak		
c)	Rs.1.375 crore has been released for the following purpose.		
1)	Engagement of Water Tankers	-	Rs.68.55 lakh
2)	Lump Provision of POL for Water Tanker	-	Rs.12.50 lakh
3)	Procurement of 1000 litr. Capacity PVC Water Tank (300 nos.)	-	Rs.10.50 lakh
4)	Sinking of Production Wells with energisation (6 nos.)	-	Rs.30.00 lakh
5)	Spares of Hand Pump Tube Wells	-	Rs.5.95 lakh
6)	Construction of Cross Bundh / Drazing the river bed	-	Rs.10.00 lakh
	TOTAL	-	Rs.137.50 lakh

ABSTRACT

1.	Health & Family Welfare Department	-	Rs. 299.00 lakh
2.	F & ARD Department	-	Rs.63.89 lakh
3.	RD Department	-	Rs.1327.00 lakh
4.	H & UD Department	-	Rs.169.11 lakh
	TOTAL		Rs.1859.00 lakh

[Table-15]

5. TSUNAMI THREAT

December-26th

An earthquake of great intensity with magnitude of 8.9 on Richter scale occurred on 26th December, 2004 at 6.29 hours IST off West Coast of Sumatra Island region of Indonesia.

In its effect, a mild tremor had been felt in few districts of Orissa.

Action Taken

- a) Immediately on 26.12.04 all Collectors particularly of coastal districts were alerted to take all possible steps to meet any eventuality.
- b) The fishermen were advised not to venture into the sea.
- c) ODRAF units were kept in readiness
- d) The State control room and the control rooms at district level were activated and run round the clock to monitor the situation.
- e) Special care was taken to caution the tourists holidaying in beach destinations.

Damages

There was no damage to life and property due to earthquake in the state. Only there was mild raise in sea level at Paradeep and Gopalpur.

Assistance to Tsunami Victims

Considering the miseries of the people in neighbouring States i.e Kerala, Tamil Nadu, Pondichery, Andhra Pradesh and Andaman & Nicobar Islands, the State of Orissa had come forwarded with its limited resources to help the affected people. The State Govt. had announced an aid of relief materials in kind worth of Rs.1.00 crore for the Tsunami affected people of the Andaman & Nicobar Islands.

191.85 MTs of food materials (Chuda, Gur, Biscuits, Candle, Matchbox etc.), Mineral water, Medicines, Diesel Generator and Rice had been despatched to Andaman & Nicobar Island, through IAF Cargo planes from dt.27.12.2004 to dt.15.01.2004. The details of Relief Materials despatched (Date wise) is given at **Table-16**.

Despatch of Relief Materials to Tsunami affected Areas													
Date	Air Craft			Food Material (Chuda, Gur, Candle, Match Box, Biscuit etc.)	Mineral Water	Medicine	Tents		Garments		Generator		Total Weight (in MT)
	No.	Arrival	Departure				Pieces	Weight	Nos.	Weight	Nos.	Weight	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
27.12.04	AN-32	6.10 PM	8.30 PM	4.80 MT (1250 pkts.)									4.80
28.12.04	AN-32	11.20 AM	1.30 AM	4.50MT (1250 pkts.)									4.50
30.12.04	IL-76	12.30 PM	4.30 PM	4.50 MT (1250 pkts.)	2.30 MT	3.50 MT	200	10.00 MT					20.30
01.01.05	AN-32	11.30 PM	1.15 PM	3.00 MT (750 pkts.)	1.00 MT								4.00
	AN-32	2.15 PM	4.00 PM	1.75 MT (500 pkts.)	2.00 MT								3.75
02.01.05	IL-78	4.30 PM	6.15 AM on 3.1.05	9.00 MT (1800 pkts.)	2.00 MT		100	5.00 MT	Garment-6200 pcs. Chapal-516 pcs. Saree-330 pcs.	0.60 MT	20	6.4 MT	23.00
04.01.05	IL-78	9.00 PM	9.00 AM on 5.1.05	9.00 MT (1500 pkts.)	1.00 MT								10.00
	Ship, Vizag Port			100 MT (Rice)									100.00
11.01.05	AN-32	5.20 PM	9.15 PM				100	5 MT					5.00
	IL-76	6.15 PM	8.00 AM on 12.01.05				300	15 MT					15.00
15.01.05	AN-32	12.45 PM	2.00 PM				30	1.5 MT					1.50
Total				136.55 MT (7300 pkts & Rice)	8.30 MT	3.50 MT	730	36.50 MT		0.60 MT	20	6.4 MT	191.85

[Table-16]

Help line

To assist the information seekers about the missing persons, help lines were opened at SRC's office at Bhubaneswar and at Rourkela. The help line was in constant touch with various authorities of Andaman & Nicobar Administration since 27.12.04 over SAT phone to collect information regarding the tourists and other missing persons of the State. The situation was constantly monitored.

March 28th

On 28th March at 9.40 PM a massive earthquake in the sea bed was occurred near Sumatra. After receipt of such message from IMD and directions from Ministry of Home Affairs, following steps were taken by the State Govt.

- District Administration of the Coastal districts was instructed to remain in high alert and preparedness to face any eventualities.
- Control room at State level and district level (coastal areas) was functioned round the clock.
- The entire Govt. machineries including Police and Medical units were alerted.

Effect

No effect of the earthquake had been experienced. On 29.03.05 at 5.30 AM, Collectors had been de-alerted.

Initiatives to mitigate Tsunami Threat

A new dimension was added to the disaster management initiatives being taken in the State after the recent earthquake and the devastating Tsunami that ravaged the eastern coast of India on 26th December, 2004. Some important decisions are taken to face the challenges, which may arise in future due to Tsunami. These are: -

- Tsunami vulnerable zone Mapping will be done by OSDMA.
- Extension of VHF Network System to these areas will be explored.
- A separate Directory of persons having WLL/Cell Phones in these areas will be maintained.
- Creation of Shadow-Free Cellular Network covering the entire Coastline will be taken up with MHA and cellular service provider.
- Multi-Purpose Vehicles will be provided to the coastal districts.
- Taking the vulnerability of Tsunami / Earthquake and its risk factors, Govt. has decided that the District Control Rooms in **Balasore, Bhadrak, Kendrapara, Jagatsinghpur, Puri and Ganjam** districts will function round the clock through out the year.
- Control Rooms will be well equipped and a dedicated vehicle will be always available in the control room of these districts.

6. Boat Accidents

Due to unprecedented rain and rising of water level in major rivers, 5 nos. of Boat accident occurred during the year 2004-05. 39 persons lost their lives due to such accidents. Ex-gratia to the bereaved families was paid out of CRF and CMRF.

The details of loss of life due to boat accidents in various rivers during the period is at Table-17

Death due to Boat Accident-2004

Sl.No.	District	Name of the Deceased/ Missing Person	Father / Husband	Age	Village	Police Station / Block / Tahasil	Cause of Death
1	Jagatsinghpur	Ulash Tripathy	Sriman	25	Nuagarh	Kujang	Drowning of 13 people due to Boat Capsize on 01.03.04 in River Mahanadi
2	do	Pradip Parida	Jayaram	26	do	do	do
3	do	Biswajit Ray	Bhagabat	27	do	do	do
4	do	Sandip samantray	Gourahari	22	do	do	do
5	do	Bhagaban Das	Dhadi	32	do	do	do
6	do	Akshaya Nayak	Gourahari	23	do	do	do
7	do	Sagar Mohapatra	Basanta	15	do	do	do
8	do	Sagar Nayak	Abhaya	15	do	do	do
9	do	Anjan Pradhan	Jogendra	21	do	do	do
10	do	Satyananda Sahoo	Narahari	13	do	do	do
11	do	Pradip Panda	Laxmidhar	27	do	do	do
12	do	Anjan Rout	Gopi	25	Balidiha	do	do
13	do	Babuna Samantray	Birabar	21	do	do	do
14	Kalahandi	Lalita Dei	w/o Seno Jhodia	25	Odri	Rampur	Drowning of 17 people due to Boat Capsize on 04.05.04 in Indravati Reservoir
15	do	Mahendra Jhadia	Seno	2	do	do	do
16	do	Ruku Dei	w/o Kundeswar	18	do	do	do
17	do	Lakshmi	d/o Chandrasekhar	20	do	do	do
18	do	Sita	d/o Chandrasekhar	7	do	do	do

19	do	Chandei Bewa	w/o Shyam Jhadia	60	do	do	do
20	do	Ratna Dei	d/o Rupa Jhadia	9	do	do	do
21	do	Manita Jhadia	d/o Meta	10	do	do	do
22	do	Bijaya Jhadia	s/o Dambaru	2	do	do	do
23	do	Jatai Bewa	w/o Rati Jhadia	45	do	do	do
24	do	Sunden Dei	d/o Rati Jhadia	20	do	do	do
25	do	Gorimani Dei	w/o Mukunda	40	do	do	do
26	do	Bude Jhadia	d/o Mukunda	13	do	do	do
27	do	Jayanti Jhadia	d/o Mukunda	4	do	do	do
28	do	Dukhi Jhadia	w/o Dasur	60	do	do	do
29	do	Harendra Jhadia	s/o Rabi	5	do	do	do
30	do	Durjan Jhadia	s/o Rabi	3	do	do	do
1	Dhenkanal	Aruna Sahoo	S/o Ganeswar		Patuapalli	Parjang	At-Sankhisor Palghat, Dt.14.06.2004
2	do	Maharaga Nayak	S/o Gobardhan		do	do	do
1	Angul	Titu @ Chitaranjan Nahak	S/o Nilamani		Badataribida	Kaniha	
	do	Samprada Nahak	W/o Tihinka		Siriguda	Talcher	
1	Cuttack	Haradeo	W/o Prahalad Mallick		Singhanathpur	Banki	At-Mahanadi, Dt.26.01.2004
2	do	Dasarathi Behera	S/o China Mani Behera		Kanderei	Gurudijhatia	do
3	do	Rabindra Bhoi	S/o Brhamar Bhoi		Aitahanga		At- River Sirua, Branch of River Kathajodi, Dt.31.05.2004
4	do	Rajani Bhanja	W/o Sachidananda		Aitahanga		do
5	do	Chanita Palei	W/o Sukadev		Kadampada		do

[Table-17]

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CHAPTER - V

Disaster Management Initiatives

Orissa, due to its geographical location, is prone to various types of natural hazards such as cyclones, floods, earthquakes and Tsunami. Its 480 km. long coastline is exposed to the threat of storm surges and tsunami waves. With a view to mitigating the effects of natural calamities and protecting the life and property of people of the state, Govt. of Orissa has initiated a multi-prong strategy, particularly after devastating effects of 1999 super cyclone. Some initiatives towards better preparedness have been taken.

1. Vulnerability Assessment

- a. 27 Engineers have been trained in Rapid Visual Screening Method for vulnerability assessment of live line buildings. Follow up action is being planned to assess the vulnerability of lifeline buildings by trained technical personnel of various line departments in consultation with Hazard Safety Cell.
- b. A meeting on preparation of vulnerability profile of various districts and list of most vulnerable villages based on past disasters has been convened by OSDMA. Action has been taken in preparation of vulnerability villages pertaining to various disasters.

2. Strengthening of District Control Rooms

The District Emergency Control Rooms of all 30 districts have been strengthened with communication gadgets (Computer, FAX, Generator, VHF etc.).

3. VHF Communication Systems

An exclusive civil VHF network is now available with all 30 districts covering District Control Room, all Block Head Quarters, and some Tahasils, Sub-Collectors and ADMs and some of inaccessible GPs. The user offices have been imparted training regarding operation of the VHF equipment. Batteries have been provided to all VHP base station as power back up. Vehicle mounted VHF base to the staff car of Collectors / SRC / MD, OSDMA and VHF handsets have been provided to all district control rooms. In addition to the above system, the existing police wireless systems also will function for receipt and dissemination of information during cyclone.

4. Satellite Phone

a. Procured - 22 nos.

- Revenue Control Room - 01
- District Collectors - 16
(Cuttack, Puri, Jagatsinghpur, Kendrapara, Jajpur, Bhadrak, Balasore, Mayurbhanj, Sambalpur, Ganjam, Rayagada, Nawarangpur, Malkangiri, Koraput, Sundargarh, Angul)

- SRC, Orissa - 01
- OSDMA - 02 (Fixed with Provident antenna)
- Vehicles - 02
(Mounted voyager antenna with Inmarsat Terminals)

b. The Collectors of the above districts have been instructed to keep the batteries of the SAT Phones in charged condition and to make test calls to OSDMA on the 1st working day of every month. The ID Numbers of the Satellite Phones available with all users are available. Two more SAT Phones have been received from MHA recently.

5. Free Power Radio

- Phillips makes Radio procured - 60
- Radios supplied to MPCs of Ganjam District - 11
- Radios supplied to MPCs of Kendrapara district - 09
- Radio to Revenue Control Room - 01
- Radios supplied to 39 MCSs - 39

(Puri -11, Jagatsinghpur -4, Kendrapara -03, Bhadrak -11, Balasore -10)

6. Wireless in Local Loop (WLL) Phone

Two WLL telephones procured and installed in OSDMA and SRC Cell Office Bhubaneswar. The WLL Phones have been provided with unique numbers as follows.

SRC Cell Office, Bhubaneswar	-	2600999
OSDMA	-	2000888

7. Cyclone Warning Dissemination Systems (CWDS)

IMD has installed CWDS stations in 8 coastal districts for dissemination of cyclone related warning.

- a. Emergency operation Centres are already functioning in 30 districts and State as per the provisions of Orissa Relief Code. Building for 16 EOCs and State EOCs are being constructed and equipped under DRM Programme.

8. Search and Rescue Teams

- a. Five units of Orissa Disaster Rapid Action Force (ODRAF) have been formed out of State Armed Police at Jharsuguda, Koraput, Cuttack, Chhatrapur and Balasore for search and rescue operation. They usually get training in the Police Training Colleges. Fire service units are being strengthened to function as smaller specialized response teams. Steps are also being taken to strengthen Civil Defence Organisation.
- b. SRC maintains a fleet of power boats kept at the disposal of the Collectors in flood prone districts. 142 nos. of powerboats are in running condition and in readiness. Another 30 nos. of powerboats under repair. The District wise deployment of boats are given below in **Table- 18**

District-wise deployment of boats

Sl.	Name of the District	Total No. of Boat	No. of Boat Running Condition	No. of Boats under Repair
1	2	3	4	5
1.	Angul	01	01	--
2.	Balasore	13	12	01
3.	Bhadrak	22	19	03
4.	Boudh	01	01	--
5.	Cuttack	12	11	01
6.	Deogarh	01	01	--
7.	Jagatsinghpur	16	16	--
8.	Jajpur	25	18	07
9.	Jharsuguda	01	01	--

10.	Kalahandi	01	01	--
11.	Kendrapara	27	17	10
12.	Keonjhar	03	03	--
13.	Khordha	07	07	--
14.	Koraput	02	01	01
15.	Ganjam	02	01	01
16.	Nawarangpur	02	01	01
17.	Nayagarh	02	02	--
18.	Puri	17	14	03
19.	Sonepur	01	--	01
20.	Rayagada	01	01	--
21.	Sambalpur	01	01	--
22.	Sundargarh	01	01	--
23.	Malkangiri	03	03	--
24.	Reserve	10	09	01
Total		172	142	30

[Table-18]

9. Orissa Disaster Rapid Action Force (ODRAF): In addition to the three units of ODRAF at Cuttack, Jharsuguda and Koraput, two more units have been set up at Balasore (under the control of SP, Balasore) and Chhatrapur (8th Battalion, OSAP). Different types of search and rescue equipments have been provided to the ODRAF units. The personnels of ODRAF units have been trained to operate these equipments.

10. Emergency Equipments

Equipment & Heavy Duty Machineries have been procured out of CRF and World Bank Assistance and placed with the Orissa Disaster Rapid Action Force (ODRAF) units located at 6th battalion, Cuttack, 3rd battalion, Jharsuguda, 2nd battalion, Koraput, 8th battalion, Chatrapur and APR Unit, Balasore. The equipments available at different ODRAF units are shown at **Table-19** below. Besides this, the resources available at district level have been updated to the portal online under IDRN programme launched by Govt. of India (www.idrn.gov.in). A GIS database for 14 coastal districts has been prepared.

Deployment of Equipments in different ODRAF Units

Sl.	Equipments	Quantity	ODRAF Unit				
			Cuttack	Jharsuguda	Koraput	Chhatrapur	Balasore
1	2	3	4	5	6	7	8
1.	Hydraulic Crane 12 Ton	8 nos.	4	1	1	1	1
2.	TATA Truck- (Troop Carrier)-6 Ton	10 nos.	2	2	2	2	2
3.	TATA Truck 12 Ton	6 nos.	2	1	1	1	1
4.	Generator 5 KVA	13 nos.	5	2	2	2	2
5.	Generator 10 KVA	10 nos.	2	2	2	2	2
6.	Concrete Cutting Equipment	5 nos.	1	1	1	1	1
7.	Power saw with Portable Power Unit	10 nos.	2	2	2	2	2
8.	Tree Pruner-cum-Chain saw	8 nos.	4	1	1	1	1
9.	Water Filter Portable	20 nos.	10	3	3	2	2
10.	Ramp-2 Ton (fabricated) MS	16 nos.	4	4	4	2	2
11.	Telescopic Aluminium Ladder (40 feet)	20 nos.	8	3	3	3	3
12.	Life Jacket	110 nos.	60	20	10	10	10
13.	Life Buoy	110 nos.	60	20	10	10	10
14.	Chain Power Saw (Stihl 026 Model)	6 nos.	2	1	1	1	1
15.	Tractor with trailer	6 nos.	2	1	1	1	1
16.	Inflatable Tower Lightning system with Generator	6 nos.	4	1	1		
17.	Branch Cutting Saw (Electric)	7 nos.	3	1	1	1	1
18.	Branch Cutting Saw (Petrol)	10 nos.	2	2	2	2	2
19.	Commando Search Light	20 nos. 4 nos. Infrared	12 4 IR	2	2	2	2
20.	Mahindra & Mahindra FJ-460-DP-4WD Ambulance	1 no.					
21.	TATA SFC-407 / 31, Ambulance	3 nos.	1	1	1		
22.	G.I. Truck	20 nos.	15	3	2		
23.	Wire Ropes & Slings	12 sets	4	2	2	2	2
24.	Lifting & Pulling Machine	4 nos.	4				

25.	Battery charges	11 nos.	3	2	2	2	2
26.	Small Tools and Jack	12 sets	4	2	2	2	2
27.	Nylon Rope	600 Kg.	300	150	150	-	-
28.	Hydraulic Tipper	5 nos.	1	1	1	1	1
29.	Recovery Van / Wreckage Crane	5 nos.	1	1	1	1	1
30.	Small rescue items like, rope, carabiner etc.	2 sets	2	-	-	-	-
31.	Submersible pump	15 nos.	3	3	3	3	3
32.	Breathing Apparatus	27 sets	7	5	5	5	5
33.	Diving Equipments	12 sets	4	2	2	2	2
34.	Diving Helmet	5 sets	1	1	1	1	1
35.	Chain Sharpener	2 nos.	2	-	-	-	-
36.	Inflatable Rubber Dinghies with OBM	20 nos.	8	3	3	3	3
37.	Fork lift 3 tonne capacity	6 nos.	2	1	1	1	1
38.	Gas mask with chemical cartridge	65 sets	25	10	10	10	10
39.	Pay loader-cum-excavator	5 nos.	1	1	1	1	1
40.	Air Compressor	3 nos.	1	1	1	-	-

[Table-19]

11. Multi Purpose Cyclone Shelters (MCS)

- a. 92 nos. of MCSs out of 97 (57 with CMRF & 35 with World Bank assistance) have been completed within 10 Kms of the High tide level of Bay of Bengal covering six coastal districts. 89 MCS buildings have been handed over to Cyclone Shelter Management and Maintenance Committees.
- b. Indian Red Cross Society had constructed 23 MCSs with German KFW funds prior to Super Cyclone in six coastal districts. After the super cyclone, Indian Red Cross Society has also constructed 6 multipurpose cyclone shelters with Spanish Red Cross funds in Bramhagairi and Krushnaprasad Blocks of Puri District. They have a proposal to construct 30 more MCSs in the districts of Balasore, Bhadrak and Kendrapara.
- c. Besides the above -
 - i. 1303 Primary Schools (863 double storied) and 1122 High Schools buildings have been constructed in Cyclone affected districts. Most of these buildings have been designed to serve as cyclone shelters.

- ii. 1014 Primary School Buildings have been constructed with DFID assistance in the cyclone affected districts.

12. Awareness Measures Undertaken

- a. 23234 villages coming under 145 blocks in 16 districts have been taken up under Disaster Risk Management Programme under which extensive awareness initiatives are taken at all levels.

To institutionalize Disaster Preparedness at different levels, “Disaster Risk Management (DRM) programme is being implemented in 145 blocks of sixteen districts of Angul, Balasore, Bhadrak, Jajpur, Jagatsinghpur, Kendrapara, Khordha, Puri, Cuttack, Rayagada, Ganjam, Mayurbhanj, Sambalpur, Keonjhar, Koraput and Nuapada districts.

- b. Awareness campaign have been taken up through publication of News letters, Posters, IEC materials etc. and through NGOs

Progress made so far -

1. No. of Districts taken	-	16
2. No. of Blocks taken up	-	145
3. No. of GPs covered	-	3005
4. No. of villages covered	-	23234
5. No. of programmed ULBs	-	67
6. District Disaster Management Committees (DDMC) formed	-	16
7. DDMC members trained	-	423
8. District Disaster Management Plans prepared	-	16
9. Block Disaster Management Committees	-	101
10. Block Disaster Management Committees (BDMC) formed	-	145
11. No. of BDMC members trained	-	3637
12. PRI members trained	-	6173
13. Volunteers trained to prepare village plans	-	5566
14. Block level trainers trained in search and rescue techniques	-	561
15. Block level trainers trained in First Aid techniques	-	784
16. Members of GP Disaster Management Committees trained	-	39954
17. GP Disaster Management plans prepared	-	1120
18. Village Disaster Management Plans prepared	-	11644
19. Community Contingency Funds generated	-	1550 villages

13. School Syllabus

Disaster Management concepts have been included in the syllabus of Class-VIII, School & Mass Education Department has been instructed for introduction of Disaster Management Curricular for class IX,X.

A Book titled “Bipati, Biparjay O Surakhya” in Oriya has been brought out for school children. Earthquake design has been made a part of the subject in the Engineering Colleges. Four Engineering Colleges and two Architectural Institutions in the State have been identified as State Resource Institute for capacity building of professionals.

14. Rapid Damage Assessment

- a. As per instruction of MHA on the occurrence of flood, the District Collectors and Departments related with flood management furnish a daily situation report indicating damages to their properties & live everyday up to the date of receding flood. They submit such report to SRC and as well as to Revenue Department.
- b. After the receipt of daily situation report on flood, the situation report at State level is prepared at SRC office and the same is sent to MHA through E-mal / FAX and accordingly State Website is uploaded.

15. Identification of Nodal Officers

- a. List of nodal officers along with their telephone numbers / FAX nos. in various Departments of State relating to disaster management and also of Government of India have been prepared.
- b. OSDMA has already published a Emergency Telephone Directory concerned with Disaster Preparedness and Management.

Long Term Mitigation Measures and Activities of OSDMA

i) Strengthening Communication: A dedicated Civil VHF network has been set up to strengthen the communication between the field offices and the district headquarters, and districts to state with financial assistance under Eleventh Finance Commission. In the first phase, 230 locations (29 district HQs, 107 blocks, 32 tehsils, 33 GPs, 22 Sub-Collectors and 7 others) have been set up. In the second phase, 172 locations were proposed and all have been taken up.

ii) Strengthening of District Emergency Operation Centres (EOC): The Government of India has formulated the National Emergency Communication Plan (NECP) for data, audio and video

connectivity with a triple redundancy to connect national, state and district EOCs. POLNET, NICNET and Virtual Private Network for Disaster Management (VPNDM) are the three major networks, which will be extended to all the districts EOCs for data, audio and video connectivity in a time bound manner. Funds have been provided to the collectors of 16 districts, where the GoI-UNDP Disaster Risk Management (DRM) programme is being implemented, for construction of disaster resistant EOCs at the district headquarters. Emergency equipments have been provided to these 16 districts with financial assistance from UNDP and MHA.

iii) Disaster Risk Management Programme (DRM): GoI-UNDP DRM programme is being implemented in 145 disaster prone blocks spread over the 16 districts of Angul, Balasore, Bhadrak, Cuttack, Ganjam, Jajpur, Jagatsinghpur, Kendrapara, Khordha, Keonjhar, Koraput, Mayurbhanj, Nuapada, Puri, Rayagada and Sambalpur. Under the programme, Disaster Management Committees have been formed in all the districts and blocks. 3787 members of 145 Block Disaster Management Committees have been trained. 5566 volunteers of 136 blocks have been trained in preparation in village disaster management plans. 561 block level master trainers of 13 districts have been trained in search & rescue techniques through Civil Defence organization; 784 master trainers of 16 districts have been trained in first aid techniques with assistance of St John Ambulance. 726 block and district level trainers have been trained in disaster mental health in collaboration with American Red Cross. 4499 teachers have been trained at district and block level. 16 district disaster management plan, 101 block disaster management plans, 1260 GP disaster management plans and 11644 village disaster management plans have been prepared under the programme.

iv) Urban Earthquake Vulnerability Reduction Programme (UEVRP): Government of India - UNDP sponsored UEVRP-a sub-component of the DRM programme- is being implemented in three cities of Orissa i.e. Bhubaneswar, Cuttack and Sambalpur. These urban areas come under the Earthquake Risk Zone-III i.e. moderate damage risk zone as per the earthquake risk zonation map prepared by Bureau of Indian Standards and published by Building Material Technology Promotion Council of India (BMTPC). City level Disaster Management Committees, Enforcement Committees and Awareness Committees have been formed in the programmed cities for implementation of the programme.

v) National Programme for Capacity Building of Engineers in Earthquake Risk Management (NPCBEERM): Government of India sponsored NPCBEERM programme is being implemented in the state for capacity building of serving as well as privately practicing Engineers in earthquake resistant design and construction practices. Four government engineering colleges i.e. (i) National Institute of Technology(NIT), Rourkela, (ii) University College of Engineering(UCE), Burla, (iii) Indira Gandhi Institute of Technology (IGIT), Sarang and (iv) College of Engineering and Technology (CET), Bhubaneswar have been identified as State Resource Institutes (SRIs) for imparting capacity-building training to engineers. Seven faculty members from the above SRIs have undergone Training of Trainers programme at IIT, Kharagpur, and the National Resource Institute (NRI).

vi) National Programme for Capacity Building of Architects in Earthquake Risk Management (NPCBAERM): Government of India sponsored NPCBAERM programme is being implemented in the state for capacity building of serving as well as privately practicing Architects in earthquake resistant design and construction practices. Two Architecture colleges i.e. (i) CET, Bhubaneswar and (ii) Pилоo Modi College of Architecture, Cuttack are declared as State Resource Institutes (SRI) for imparting capacity building training to the Architects. One faculty member from the CET, Bhubaneswar has undergone Training of Trainers programme at JNTU, Hyderabad, and the National Resource Institute (NRI).

vii) Techno-Legal Regime: A high level Committee under the chairmanship of Development Commissioner-cum-Additional Chief Secretary, Orissa is examining the recommendations of the National Expert Committee (set up by Government of India) on Town & Country Planning Regulations, Land-use Zoning Regulations, Development Control Regulations and Building Standards Regulations for its incorporation in Orissa.

viii) National Cyclone Risk Mitigation Programme (NCRMP): Government of India - World Bank sponsored NCRMP will be implemented in Orissa during the period 2005-2010 along with other 12 cyclone prone states and Union Territories with an overall outlay of Rs.1642.50 crore. The programme is funded by World Bank. Funds to the tune of Rs.176.00 crore will be placed as a grant by the Government of India. The programme is likely to involve Rs.234.70 crore for Orissa with one-fourth contribution from the state. A Project Steering Committee has been constituted under the chairmanship of the Chief Secretary, Orissa to monitor implementation of the programme in the state. The project will be implemented in six coastal districts and part of Khordha adjoining the Chilika Lake.

ix) Concrete Pedal Pump: Emergency supply of concrete pedal pumps to cyclone and flood affected farmers in Orissa was taken up by FAO in the districts of Kendrapara (Mahakalpada and Rajnagar blocks) and Jagatsinghpur (Kujang and Erasama Blocks). 650 pedal pumps have been supplied to small and marginal farmers. A workshop was organized at Kendrapada for propagation of the technology. To promote the technology, the programme has been extended to Jajpur and Ganjam districts in its second phase along with the above two districts.

x) IEC Activities: A reference book on disaster management has been brought out in Oriya for school children in collaboration with UNICEF. Posters with safety tips on heat waves were printed and distributed. 29 publications have been brought out under Social Capital Restoration Programme (SCRIP).

xi) DFID assisted Orissa Post Cyclone Reconstruction of Primary School Building Programme: 3254 Primary school buildings were identified as per survey for reconstruction. The Project period is from 2003 to 2006. Orissa Primary Education Programme Authority (OPEPA) is executing the project under overall supervision of Orissa State Disaster Mitigation Authority (OSDMA). Work has started for 2356 schools. 544 school buildings are completed and handed over. Besides these, 526 school buildings are in finishing stage. Others are in different stages of completion. Cumulative expenditure comes to Rs.72.70 crore.

xii) Geographical Information System (GIS): GIS data base of 14 cyclone affected coastal districts have been completed with various layers of information like village boundary, block boundary, district boundary, drainage, rivers and roads. Additional layers of information like multipurpose cyclone shelters, School-cum-cyclone shelters, location of VHF base stations have been incorporated. Hazard mapping of Orissa in reference to BMPTC - ATLAS have been done at OSDMA level.

xiii) Lift Irrigation Programme: The DFID had sanctioned Rs.27.89 crore for rehabilitation of Lift Irrigation Points. Against the target of 2587 LIPs, 32 projects were dropped and work in 2555 was completed. All the 2555 projects have been handed over to the Water Users' Associations (Pani Panchayats).

xiv) Social Capital Restoration Programme: With assistance of World Bank, OSDMA implemented Social Capital Restoration Programme in the cyclone affected areas through 30 non-governmental organizations during the period from 1.3.04 to 30.9.04. The programme aimed at enhancing social cohesiveness for strengthening disaster preparedness and development.

xv) World Bank funded Orissa Water Resources Consolidation Project (OWRCP) -Reconstruction and restoration of damaged infrastructure like irrigation, drainage, rural and urban water supply; drainage systems, roads and bridges etc. were taken up with World Bank Assistance. Water Resources, Rural Development (R.D), Works, Housing & Urban Development (H. & U.D.) and Agriculture Departments were implementing the projects. OSDMA has been coordinating with these departments to ensure specified quality standards in the works. 670 packages of work at an estimated value of Rs.257.86 crore were taken up out of which 67 packages were rescinded / dropped / closed due to different problems.

Works in respect of 583 packages are completed and most of the works in 20 ongoing packages are over. The World Bank assisted scheme has been closed. The minor works left out in 20 packages have been taken up under Calamity Relief Fund (CRF) grant amounting to Rs.18.57 crore in order to complete the works. Out of 20 packages taken up under CRF, 10 packages are complete, work has started for 2 packages after re-tender and 8 packages are proposed for closure.

a) Irrigation works under DOWR:

Cyclone reconstruction works in the irrigation sector have been taken up with the World Bank assistance in 14 coastal districts of Orissa. Out of 395 packages, 50 packages are rescinded, 337 packages have been completed and most of the work is complete in the remaining 8 packages, which include both immediate and short-term phase works. The balance works have been taken up under CRF. Out of 8 packages 1 is complete, 2 proposed for closure and others are in progress. The reconstruction works in irrigation infrastructure mainly comprise of renovation and strengthening of flood, canal, and saline embankments and improvement of drainage channels too.

b) Road Works

Out of 48 packages to H& UD Department, 47 were completed and most of the works in the remaining one package are complete. The remaining works have been taken up under CRF. Now the said project is proposed for closure. Out of 48 packages to Works Department, 7 are rescinded, 40 packages are complete and balance work in 1 package was taken up under CRF and has been completed. Out of 60 packages to Rural Development Department, 8 are rescinded, 46 packages were completed and balance work in 6 remaining packages have been taken up under CRF, out of which 2 have been completed and others are in progress.

c) Cyclone Shelters

Out of 15 packages of Works Department, all 15 Cyclone Shelters are complete. Another 5 packages constructed by OCC under direct supervision of OSDMA are completed. Further out of 14 packages of Rural Development Department, two are rescinded and twelve were completed. Now, after re-tenders, work has started in these two projects.

d) Urban Water Supply

Out of 20 packages, one package has been rescinded and all the rests are complete.

xvi) Reconstruction of Health Institutions: A sum of Rs.12.80 crore has been provided from CMRF for infrastructure development of health institutions in cyclone-affected districts. With this amount additional infrastructure is being provided to 221 health institutions in 125 Blocks of the 14 cyclone affected districts. The project is being implemented by concerned Zilla Swasthya Samitis (ZSSs). Works in respect of 216 institutions have been completed.

DFID had extended support to State Govt. to restore essential health care service in the cyclone-affected districts. About Rs.7.00 crore was received from DFID. Health & Family Welfare Dept executed the project. The project has been completed.

xvii) **Education Infrastructure:** A large number of School buildings damaged in the Super Cyclone were immediately repaired under the then ongoing development programme. Besides this, a number of cyclone resistant pucca school buildings have also been constructed/ being constructed with the funds received from various sources. The latest position of construction of school buildings is placed below in **Table-20**.

PRIMARY SCHOOL BUILDINGS			
Agency	Nos. allotted	Work started	Completed
Prime Minister's Relief Fund	961	960	928
CMRF (Lucknow Oriya Samaj Donation)	6	6	6
Maharashtra Govt.	41	41	41
Karnataka Govt.	56	52	51
Gujarat Govt.	37	36	35
Madhya Pradesh Govt.	143	143	130
Operation Black Board	4420	4420	4415
NFCR	15	15	15
NGOs and other Donors	125	123	117
Total	5804	5796	5738
HIGH SCHOOL BUILDINGS			
Prime Minister's Relief Fund	301	298	273
Maharashtra Govt.	59	59	59
Karnataka Govt.	52	50	50
Gujarat Govt.(Balasore)	13	13	13
Madhya Pradesh Govt.(Jajpur)	74	74	58
MPLAD Fund of Rajya sabha MPs	78	78	77
NFCR	140	139	137
CMRF (1 st phase)	128	128	128
CMRF (2 nd phase)	128	128	128
CMRF (LOS' Donation)	32	32	32
MPLAD Fund of Lok Sabha MPs	86	83	83
CRF	32	32	32
Other Donors and NGOs	69	69	69
Total	1192	1183	1139

[Table-20]

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CHAPTER - VI

CALAMITY RELIEF FUND

Relief and mitigation expenditure on account of different calamities are met out of CRF at the state level. As per the norms and condition prescribed by Govt. of India, a committee headed by the Chief Secretary of the State administers the fund. As per the direction of Central Finance Commission, Govt. of India and State govt. at the ratio of 75:25 share the corpus for this fund.

When a calamity of rare severity occurs, the Govt. of India sanctions fund out of NCCF according to the damage caused due to impact of the calamity for providing immediate relief to the victims.

The position of both CRF and NCCF is shown at Table - 21

FUNDS POSITION						
2004-05						
(Rs. in Crore)						
Category of Funds	OB	Receipt	Unspent & surrendered of previous year	Total	Funds Released	Balance
1	2	3	4	5	6	7
CRF	9.51	133.06	86.23	228.80	228.80	0.00
NCCF	7.29	53.44	43.52	104.25	101.87	2.38
Total	16.80	186.50	129.75	333.05	330.67	2.38

[Table-21]

RELEASE OF FUNDS							
2004-05							
(Rs. in Crore)							
Category of Funds	Receipt	Surrender/ augmented	Total	Funds Released			Balance
				District	Department	Total	
1	2	3	4	5	6	7	8
CRF	133.06	95.74	228.80	6.67	222.13	228.80	0.00
NFCR-99		12.93	12.93	0.01	12.75	12.76	0.17
NCCF-00		1.29	1.29		1.29	1.29	0.00
NCCF-01		8.74	8.74	0.03	8.70	8.73	0.01
NCCF-02		2.17	2.17			0.00	2.17
NCCF-03		25.68	25.68	0.33	25.32	25.65	0.03
NCCF-04	53.44		53.44		53.44	53.44	0.00
Total	186.50	146.55	333.05	7.04	323.63	330.67	2.38

[Table-21.1]

**Allotment of Funds under NFCR/NCCF
(Including Surrendered Amount)**

As on 31.3.2005

Augmented Rs.10425.40 lakh

(Rs.in lakh)

SI.No.	Department/District	Purpose	Allotment Released
1	2	3	4
1	Rural Development Deptt.	Sinking of 70 nos of Deep tubewells in flood affected coastal areas (NCCF)	32.20
		Repair/restoration of Rural Roads	75.00
		Repair/restoration of Roads damaged due to Super cyclone-1999 surrendered during 2003-04	459.24
		Repair/restoration of Roads damaged due to Flood-03 surrendered during 2003-04	109.40
		Repair/restoration of Roads damaged due to Flood-01 surrendered during 2003-04	38.00
		Repair/restoration of RD Roads of Bhadrak, Balasore, Jajpur and Mayurbhanj district	86.00
		Repair/restoration of RD Roads of Gajapati district	25.00
		Repair / restoration of Singhpur - Nahakani Jina Road, Barikul - Sridharpur road	50.00
		Raising of platform in respect of additional 1050 tubewell	126.00
		Repair / restoration of 10 nos. of RD roads of Bhogarai area	117.45
		Repair / restoration of Bhagirathipur - Kujibar Road of Jajpur district	12.55
		Total	
2	H & UD Department	Repair/restoration of PH installation damaged due to Flood-03 surrendered during 2003-04	3.55
		To mitigate the scarcity of drinking water problem during the heat wave condition of 2005 (NCCF-00)	28.70
		Total	32.25
3	Water Resources Deptt.	Repair/restoration work of Hinjili area (Rs. 125.56 lakh), Foot bridge near village Kusan Nagar (Rs.35.00 lakh), repair/restoration of Nuagarh Jetty (Rs.99.31 lakh) damaged due to Super cyclone-99 (Surrendered amount of 2003-04)	259.87
		Repair/restoration of river and saline embankment damaged due to Flood 01 surrendered during 2003-04	352.56
		Repair/restoration of Irrigation projects damaged due to Flood-03 surrendered during 2003-04	950.00
		Repair/restoration of Lift Irrigation Projects damaged due to Flood-03 surrendered during 2003-04	2.05
		Repair / restoration of embankment of Kalahandi and Nuapada Irrigation Division	165.00
		Repair / restoration of river embankment of Khorda Irrigation Division	30.00
		Towards balance amount for construction of Spurs on river Devi near Nuagarh Jetty, Jharling-Belang saline embankment in Astaranga Block, improvement of Bhanga Muhan Saline embankment and slope protection to Kirtanis Bhusandeswar road, bank protection work and construction of two nos. of spurs on the left bank of river Subamarekha near village, Kirtanis, Jalapshi and Kumbhigadi	150.00
		Total	

4	Works Deptt.	Repair/restoration of approach road to Ong bridge on Sohela to Nuapara and repair/restoration of approach road to Ong bridge other side	203.00
		Repair/restoration of Erosoma-Manijanga Road damaged during Super cyclone-99 surrendered amount of 03-04	14.00
		Repair/restoration of roads damaged during Flood-01 surrendered during 03-04	271.22
		Repair/restoration of SCB Medical College & Hospital (Rs.163.50 lakh), Circuit House at BBSR (Rs.13.77 lakh)damaged during Super cyclone-99 surrendered amount of 03-04	177.27
		Repair/restoration of BJB College (Rs.6.23 lakh), Heritage Building at Cuttack (Rs.7.00 lakh)damaged due to Flood-01 surrendered during 2003-04	13.23
		Repair / restoration of PWD roads	130.00
		Restoration of 1000 mm ONP3 Hume Pipe vented Causeway on Samasingha Laikera - Bagadihi road	38.64
		For Rehabilitation of HL Bridge over river Rahul	159.84
		Repair / restoration of Kalunga - Banai road and Cuttack - Govindpur - Banki - Simur	78.92
		Repair / restoration of 14 PWD road	407.75
		Total	
5	ST & SC Development Deptt.	Repair/restoration of Tribal huts damaged due to Super Cyclone-99 surrendered during 2003-04	3.50
6	Energy Department	Restoration of electricity line damaged during super cyclone-99	99.21
7	H & FW Department	To mitigate the heat wave condition during the ensuing summer (NCCF-00)	100.00
8	F & ARD	Repair / restoration of fish landing centre at Balugaon Jetty	19.72
9	Forest & Environment	Raising of one lakh seedling	5.20
10	OSDMA	Completion of road package DMA/KMP/MR-01 in Kabisuryanagar NAC through OSDMA (NFCR)	11.34
11	Under Secretary SR	Polythene Testing Charges to CIPET	0.61
		Air Lifting Charges for Super Cyclone-99 & Flood-03	5344.00
		Total	5344.61
12	Collector, Gajapati	Repair / restoration of Burukhata Chhaka to Mahendragiri Hill top road	3.00
13	Collector, Malkangiri	Reconstruction of Spur to trained the Potteru River Bank to save the Sevashram Building in Girikan Palli	8.40
14	Collector, Jajpur	Repair / restoration of Panchayat road from Balungapat Medical to Mathasahi	3.00
15	Collector, Kendrapara	Payment of hirecharges of two Cinemal Hall	1.02
16	Collector, Bhadrak	Ex-gratia (Cyclone)	0.25
17	Collector, Balasore	Repair of 207 nos. of LI Points which were damaged during Flood-03	21.62
GRAND TOTAL		10187.31	

[Table-21.2]

**Release of Funds out of CRF
COLLECTORS
As on 31.3.2005**

(Rs. in lakh)

SI.No.	Department	Purpose	Amount
1	2	3	4
1	Collectors	Ex-gratia Lightening	23.900
		Ex-gratia Fire	12.500
		Ex-gratia Cyclone	62.250
		Ex-gratia Flood	7.500
		Ex-gratia due to heavy rain	0.100
		HB Assistance Fire	119.628
		H.B.Assistance Flood	89.442
		HB Assistance Cyclone	3.602
		Cost of search & rescue measures	184.424
2	17 Collectors	Revival of L.I.Points	58.450
3	Mayurbhanj	Disposal of carcasses	0.020
		Transportation Charges	0.085
		Repair / restoration of 2 nos. high school building	0.600
4	Bolangir	Sand cast subsidy	39.840
		G.R.in kind	0.069
		Repair / restoration of NB high school building	8.460
5	Cuttack	G.R.in kind	3.022
		Betel-vine Subsidy	3.865
6	Sambalpur	G.R.in kind	0.329
		Transportation Charges	0.049
7	Nayagarh	Construction of cross bundhs to protect the standing crops in the 6 blocks of the district	4.000
		Repair / restoration of Dasarathi Pattanaik Museum Building	5.000
8	Dhenkanal	Toll Free four digit Code Telephone	0.020
9	Sundargarh	Toll Free four digit Code Telephone	0.020
10	Khurda	Cost of 375 Pcs of gunny bags procured cfrom FCI for Air Dropping Operatioon during Super Cyclone-99	0.132
		Sand cast subsidy	0.895
		G.R.in kind	1.367
		Cost of relief materials for Tsunami Relief operation	0.500
11	Boudh	G.R.in kind	0.050
12	Jharsuguda	G.R.in kind	0.046
13	Ganjam	Transportation Charges	1.000
14	Bhadrak	Transportation Charges	3.000
		Cost of SGRY rice (Flood -04)	18.000
15	Rayagada	Transportation Charges	1.450
16	Angul	Sand cast subsidy	0.052
17	Malkanagiri	Repair of Boats	0.100
18	Balasore	G.R.in kind	0.250
		Transportation Charges	0.200
19	Collector, Puri	MCC under FFW Programme for repair/restoration or roads	13.000
Total			667.217

[Table-21.3]

**Release of Funds out of CRF
DEPARTMENTS
As on 31.3.2005**

(Rs.in lakh)

1 Sl.No.	2 Department	3 Purpose	4 Amount
1	F & ARD	Procurement of veterinary medicine & mobility	3.000
		Cattle Feed	1.600
		Transport charges	0.400
		Procurement of veterinary medicine & mobility of veterinary	63.89
		Assistance for boats and nets to left over 119 fishermen of Ugratara PFCS	2.83
		Total	71.720
2	Rural Development	Sinking of 2000 nos of tube wells in rural areas	830.000
		Repair of Revenue Buildings- Rs.521.15 lakh	871.150
		Repair of other building -Rs.350.00 lakh	
		Repair/restoration of roads damaged due to Flood-04	85.000
		Repair / restoration of 9 Nos. of RD roads of Jajpur, Balasore and	533.56
		Supply of drinking water for Rural habtution during summer	497.00
		TC for food grain under FFW Programme (DRGT)	35.71
		MCC for undertaking Labour Intensive Work (DRGT)	173.79
		Sinking of tube wells in drought affected areas	26.60
		Repair/restoration of School buildings, MCC & TC in flood affected	401.39
		Repair/restoration of roads	2228.73
		To mitigate drinking water problem in water scarcity rural areas during ensuing summer	300.00
		Total	5982.930
3	Housing & Urban Dev.	Sinking of 50 nos. of new tube wells in the water scarcity pockets in urban areas	22.500
		Installation of Water cooler in important Bus Stations	9.105
		Supply of drinking water during summer (DRGT)	137.50
		Repair/restoration of PH installation of MKCG Medcal College, Berhampur	46.37
		Repair/restoration of water supply system in the State and repair/restoration of Urban water Supply in Angul town (1260.12 lakh + 0.72 lakh)	1260.84
		Sinking of tube wells in drought affected areas	103.73
		To mitigate scarcity of drinking water problem during the head wave condition of 2005	271.30
		Total	1851.345
4	Works	Repair of Revenue buildings- Rs. 678.85 lakh	1078.850
		Repair of other building - 400.00	
		Repair of roads damaged due to Flood-04	90.000
		Repair / restoration of Jaleswar - Batragram - Chandaneswar road from 20 / 00 to 25 /00 Km in Bhogarai area of Balasore district.	490.00
		Repair / restoration of Barabati to Singhapur road and road from NH-5 to Babalpur	24.43
		MCC for under taking Labour Intentive Works in drought affected areas	36.06
		TC for food grain under FFW Programme in drought affected areas	8.45
		Repair/restoration of roads	1667.72
		Repair/restoration of buildings	112.63
		Total	3508.140

5	Water Resources	Repair of damaged Office buildings	100.000
		Repair/restortion of damaged MIP for conservation of water for irrigation	50.000
		Clearance of Arrear liability for Flood-03	3100.000
		Repair / restoration of river embankment as flood preparedness for the next year.	207.32
		Immediate closer of breaches caused due to flood-04	500.00
		Repair / restoration of the sluices of outfall point on Ganguanalla with river Daya.	75.60
		Repair/restoration of Irrigation & Flood Protection Works	1473.00
		MCC for undertaking Labour Intensive Works in drought affected areas	143.50
		TC for food grain under FFW Programme (DRGT)	16.43
		MCC & TC for food grain (Flood-03) and repair/restoration of water sports lagoon (850.81 lakh + 112.24 lakh + 5.40 lakh)	968.45
		Repair/restoration of Lift Irrigation Projects	7.39
		Repair/restoration of Minr Irrigation Works	481.53
		Repair/restoration of Lift Irrigation Projects	6.90
		Repair/restoration of drainage in Bhubaneswar City damaged due to calamities	395.00
	Total	7525.120	
6	Revenue	Expenditure on POL and maintenance of the vehicle of Revenue Department	1.500
7	Forest & Envirn.	Repair of damaged Office buildings	50.000
		Repair / restoration of damaged internal roads in Nandankanan	10.00
		Total	60.000
8	FS & CW Deptt.	Cost of Food grain for Tsunami Relief Operation	10.000
9	Panchayati Raj Deptt.	Transportation & handling Charges for Tsunani Relief Workls	3.000
10	Home Deptt.	Expenditure for Air Force personnel engaged for Tsunami Relief Work	0.094
11	School and Mass Edn.	Repair / restoration of Khandapada Girls' High School in Nayagarh district	2.00
12	G.A. Department	Repair / restoration of of Air strips at Raisuan Utkela, Nuapada and Padmapur	127.00
13	Science and Tech.	Repair / restoration of Pathani Samanta Planatorium	1.00
14	H ealth & Family Wel.	Cost of Medicines for Tsunami affected peopls of Andaman and Nicobar Islands	2.37
		Health care measures during summer	299.00
		Total	301.37

15	OSDMA	Purchase of equipments for two units of ODRAF at Balasore and Chhatrapur in favour of OSDMA	200.000
		Equipment Godown of ODRAF Unit	100.000
		Purchase of 60 nos. of 5 MVA Generator and procurement of VHF equipments	85.000
		Repair/restoration of Balasore-Mitrapur-Baincha road	333.170
		Expenditure for ODRAF Unit of Balasore & Chhatrapur	1.000
		Cost of Relief materials for Tsunami Relief work	16.630
		Procurement of Search and Rescue Equipment	200.000
		To complete the incomplete works in respect of 33 packages under OWRCP projects	1051.000
		CDR works to Scoured Bank protection at Chandbali Town	106.650
		Completion of 32 School building in cyclone affected area	3.310
		Training of 30 ODRAF personnel	15.000
		For provision of Solar Auto Voltaic Power Supply facility for three multi-purpose cyclone shelter	25.000
		Minor repair and maintenance of vehicle and equipment of 5 ODRAF units	0.750
		For Balance requirement for the project on restoration of Balasore - Mitrapur - Baincharoad	65.830
		Permanent flood proofing measures in Baitarani river system (Rs.312.00), Procurement of training equipments to be placed with Biju Pattanaik Police Academy (Rs.27.91)	339.910
		Construction of ODRAF building (Rs.47.00), Construction of vehicle servicing platform (Rs.18.00), Supply of electricity (Rs.3.50), Provision of water supply (Rs.6.90) to the 11 nos. of multipurpose cyclone shelter of	75.400
		Total	2618.650
16	Under Secy. (SR)	Cost of search & rescue measures	57.290
		Transport charges	7.064
		Boat Repair	77.310
		Cost of Advertisement	0.829
		Cost of purchase of Batteries and other accessories	0.264
		Salvage operation of Power Boat	0.170
		Contingent Expenditure	2.500
		Telephone Charges	1.000
		Cost of Rain-gauge instruments	2.593
		Lodging & fooding Charges of Air Force Pilots engaged in Tsunami relief operation	0.211
Total	149.231		
Grand Total		22213.100	

[Table-21.4]

UTILIZATION CERTIFICATE

Utilization Certificate amounting to Rs.363.28 crore has been sent to AG Orissa during the year under report against the funds provided to various departments and districts since 1999-00 till 2004-05.

[Rs. in lakh]

	District	Department	Total
CRF	4301.19	15479.04	19780.23
NCCF	2092.98	14455.07	16548.05
GT	6394.17	29934.11	36328.28

(1) An amount of Rs. 1824.04 crore has been received from 1999-2000 to 2004-05 under CRF and NCFR/NCCF. Out of which utilization certificate to the tune of Rs. 1473.35 has already been furnished to AG, Orissa till 31.03.05. The table below has shown the details.

[Rs in crore]

Fund	Receipt 1999-2000 to 2004-05	UC Submitted 1999-2000 to 2004-05	Percentage
CRF	666.56	450.84	67.64
NCCF	1157.48	1022.51	88.34
Total	1824.04	1473.35	80.77

(2) The submission of UC in respect of allotment provided to different districts and department from 1999-2000 to 2004-05 till 31.03.05 is shown in bellow.

Year-wise Submission of UC

(Rs. in lakh)

Agency	1999-00		2000-01		2001-02	
	Allotment	UC Submitted	Allotment	UC Submitted	Allotment	UC Submitted
District	29840.38	29115.91	9249.63	8206.13	4545.52	3597.72
Department	18404.17	15112.47	22942.40	22420.19	21811.92	20871.15
Total	48244.55	44228.38	32192.03	30626.32	26357.44	24468.87

Agency	2002-03		2003-04		2004-05	
	Allotment	UC Submitted	Allotment	UC Submitted	Allotment	UC Submitted
District	6713.75	5426.19	7405.83	4168.78	704.50	55.43
Department	13627.04	11548.12	20013.79	14810.27	32363.12	12003.28
Total	20340.79	16974.31	27419.62	18979.05	33067.62	12058.71

CHAPTER - VII

MISCELLANEOUS

Management Information System

Management Information System for tracking vulnerability to Starvation and Malnutrition came into force in the State from the 2nd fortnight of January, 2003 basing on the observation of Supreme Court directives out of Writ Petition (Civil) No.196/2001. It is the duty of each State to prevent deaths due to starvation or malnutrition & ensure food security to the people. Keeping in view the orders of the Apex Court, Special Relief Commissioner, Orissa introduced a format for monitoring malnutrition and hunger for ensuring Food Security etc. with emphasis on following cases.

- i) For vulnerable Population.
- ii) In scarcity Pockets.
- iii) In Epidemic Prone Areas.
- iv) Of Individual with prolonged Illness.
- v) For mothers and Children with malnutrition.

Basing on this aspect district authorities of the State are submitting required information to the Special Relief Commissioner, Orissa twice in a month i.e. at the ending of each fortnight. On receipt of the information from the Collectors of the State, we are compiling, analyzing and evaluating the data as per the prescribed indicator. After analysis of the feedback as monitoring authority, we request concerned Departments of Govt. and Collectors for making suitable interventions on the feedbacks from the field. Thus for effective management of disasters, the MIS has proved to be a essential tool.

ISSUES & CHALLENGES IN DISASTER MANAGEMENT

1. Lightning Deaths: A Natural Disaster

A good no. of people succumbs to death due to lightning in the State every year. Lightning or Thunder stroke is a natural phenomenon and prevention of its occurrence is beyond human control. But this being not included in the list of natural disasters under CRF, assistance out of CRF can not be administered. The year wise deaths due to lightning for last few years as given below will amply explain the gravity of the situation.

Year	No. of Lightning Deaths
2001	183
2002	220
2003	221
2004	277

Ex-Gratia Assistance to the Victim

It is an irony that death of poor people due to lightning can not be compensated as ex-gratia assistance as in cases of death due to other calamities like flood, fire, cyclone & earthquake. Hence, this may be considered for inclusion in the list of natural disasters for which relief can be administered out of CRF.

2. Heat Wave

The climatic changes, rapid urbanization and erosion of forest has been major cause of recent heat wave conditions. It has become a menace during the hard summer causing insurmountable human suffering. The poor people, farmers and workers suffer from sunstroke and lose their lives. The State of Orissa has been facing serious heat wave conditions during past years since 1998. Hence, heat wave condition may be considered as natural calamity with award of Ex-gratia assistance to the next of kin of the deceased persons succumbs to the calamity.

3. Maintenance of MPCS

97 numbers of Multipurpose Cyclone Shelters are being constructed along the coastline after the event of supercyclone-99. These large sized buildings being located within 10 Kms of the seashore will require maintenance every year as these buildings are likely to be affected by saline effect. There should be provision of fund in the CRF guideline for maintenance of these buildings.

4. Flood Shelters

CRF guideline should provide support for construction of Flood Shelters on the bank of major rivers.

5. Exemption of Examination and Tuition Fess

After occurrence of a major calamity the people suffer great financial loss and the fragile economy of the poor people is shattered. It is imperative that they face financial hardship to pay the examination and tuition fees for their children. Hence this item of expenditure should be included in the norms.

6. Boat Accidents

Ex-gratia payment to bereaved families of deceased persons due to boat accident during normal time while ferrying and transporting may be included in the norms of expenditure. Mainly, Boat Accidents occur due to turbulent water in the rivers and rough weather conditions.

7. Basin Management

A special task force has been constituted by the Central Govt. mainly to look into flood problems in the States, which are situated in Brahmaputra-Ganga Basin. For this purpose a special fund with a corpus of Rs.10, 000 crore has been earmarked by the Central Govt. for flood protection in the States. But Orissa has not been included in this scheme. The State being the most calamities prone deserves immediate consideration in this regard.

These above issues have been already place before Govt. of India for consideration.

CONCLUSION

Although the state had not encountered any major natural calamities during the period under report, still natural calamities had not left the state untouched. Medium floods had occurred in two /three districts and drought in some parts of the state affecting ten districts partly. The management of these disasters was comprehensive to mitigate the impact. Long Term Mitigation measures are need of the day to combat disasters like Droughts and Floods. The Calamity Relief Fund does not provide for the same and the financial position of the State Government does not permit to venture into those areas. This dichotomy continues and victims are the poor vulnerable population of the State. The recurring disasters have lot to contribute for slow growth rate and delayed development in the State.
