



Government of Odisha

**ANNUAL REPORT
ON
NATURAL CALAMITIES
2014-15**

**Revenue & Disaster Management Department
(Special Relief)**

CONTENTS

CHAPTER – I	Introduction	01-02
CHAPTER – II	Rainfall	03-08
CHAPTER – III	Heavy Rain & Floods	09-10
CHAPTER – IV	Very Severe Cyclone “Hudhud”	11-27
CHAPTER – V	Other Calamities	28-33
CHAPTER – VI	Relief Operation	34-44
CHAPTER – VII	Status of Preparedness	45-46
APPENDIX – X	Profile of the State	47-48



Chapter-I

Introduction

The State of Odisha is located between the parallels of 17.49'N and 22.34'N latitudes and meridians of 81.27'E and 87.29'E longitudes. It is bounded by the Bay of Bengal on the East, Chhattisgarh on the West, Jharkhand and West Bengal on the North and Andhra Pradesh on the South. While the State has a coastline of 480 Km. which constitutes about 17% of the East Coast, it is intercepted by peninsular river system like the Subarnarekha, the Budhabalanga, the Brahmani, the Baitarani, the Mahanadi, the Rushikulya and the Vansadhara in addition to a number of tributaries and distributaries. The coast is under uninterrupted influence of fresh water flow and delta building processes. It is in general oblique to the global winds system which generates strong littoral currents and represents one of the world's largest delta areas. On the other hand, the climate is characterized by hot in summer and cold in winter in the interior. In the coastal region near Bay of Bengal, it is moist and equable. Such geo-climatic conditions make the State acutely vulnerable to regular multiple natural disasters like flood, cyclone, storm surges and tsunamis. Though the coastline constitutes 17% of the East Coast, it affects the State with 35% of all the cyclonic and severe cyclonic storms that has crossed Eastern Coast and associated with storms surges that often inundate large tracks of coastal districts. Thus, living with disasters is a part of life of the people of Odisha.

The table below indicates the occurrence of major disasters in the State during last 20 years.

Year	Calamity	Districts Affected
1995	Floods & Cyclone	23
1996	Drought	28
1997	Drought	16
1998	Drought, Heat wave	26
1999	Super Cyclone	14
2000	Drought	29
2001	Floods	24
2002	Drought	29

2003	Floods	23
2004	Floods	05
2005	Floods	15
2006	Floods	27
2007	Floods (July) (Aug & Sept)	12 15
2008	Floods(June & September)	21
2009	Flood & Heavy rain Drought / Pest Attack	17 18
2010	Flood & Heavy rain Drought Unseasonal Cyclonic Rain	06 17 24
2011	Drought Flood	21 21
2012	Drought Flood	4 5
2013	Very severe cyclonic storm 'Phailin' / Flood	19
2014	Flood Very severe cyclonic storm 'Hudhud'	27 15

During the year 2014-15, the State encountered various calamities like Floods, Very severe cyclonic storm 'Hudhud', Landslide, Heat wave, Fire Accident, Lightning, Hailstorm, Whirlwind and Earthquake. However, there was no drought like situation in the State during the year.

Chapter- II

Rainfall

Normal rainfall (Long Term Average):

The long term average rainfall in respect of different Blocks, Districts and the State for different months of year is fixed by IMD, Pune taking into account the rainfall data for preceding 30 years. Such long term average rainfall popularly called 'Normal Rainfall' has been last fixed during 2006 for different districts and the State as follows:

Sl. No.	District	Annual Normal Rainfall (in mm)	Sl. No.	District	Annual Normal Rainfall (in mm)
1	Angul	1401.9	18	Keonjhar	1487.7
2	Balasore	1592.0	19	Khordha	1408.4
3	Bargarh	1367.3	20	Koraput	1567.2
4	Bhadrak	1427.9	21	Malkanagiri	1667.6
5	Bolangir	1289.8	22	Mayurbhanj	1600.6
6	Boudh	1623.1	23	Nawarangpur	1569.5
7	Cuttack	1424.3	24	Nayagarh	1354.3
8	Deogarh	1582.5	25	Nuapara	1286.4
9	Dhenkanal	1428.8	26	Puri	1408.8
10	Gajapati	1403.3	27	Rayagada	1285.9
11	Ganjam	1276.2	28	Sambalpur	1495.7
12	Jagatsinghpur	1514.6	29	Sonepur	1418.5
13	Jajpur	1559.9	30	Sundargarh	1422.4
14	Jharsuguda	1362.8	State Average		1451.2
15	Kalahandi	1330.5			
16	Kandhamal	1427.9			
17	Kendrapara	1556.0			

District-wise rainfall for the year 2014

The district-wise monthly rainfall statistics from January to December, 2014 including percentage of deviation is indicated in the table below.

Sl. No.	DISTRICT	JAN.			FEB.			MAR.			APRIL.			MAY			JUNE			JULY		
		Actual	Normal	% of Dev.	Actual	Normal	% of Dev.	Actual	Normal	% of Dev.	Actual	Normal	% of Dev.	Actual	Normal	% of Dev.	Actual	Normal	% of Dev.	Actual	Normal	% of Dev.
1	Angul	0.0	12.6	-100.0	29.5	27.1	8.7	26.5	24.3	9.2	7.9	27.2	-71.0	96.2	52.9	81.8	85.3	225.1	-62.1	575.7	347.7	65.6
2	Balasore	0.0	14.7	-100.0	41.6	31.8	30.8	43.9	34.4	27.7	24.2	62.2	-61.1	224.6	108.5	107.0	177.3	221.5	-20.0	479.3	308.6	55.3
3	Bargarh	0.0	12.5	-100.0	32.9	19.1	72.3	23.8	22.0	8.0	1.4	20.0	-92.9	98.2	25.6	283.5	94.0	205.6	-54.3	670.7	397.2	68.8
4	Bhadrak	0.0	11.8	-100.0	35.3	29.6	19.4	42.2	36.1	16.8	31.9	51.2	-37.6	211.1	91.4	130.9	63.9	198.2	-67.8	351.0	293.6	19.5
5	Bolangir	3.1	8.6	-63.5	15.0	13.2	13.6	8.8	14.6	-39.5	10.3	13.4	-23.2	157.0	27.8	464.8	70.5	202.8	-65.2	573.8	360.5	59.2
6	Boudh	0.0	17.0	-100.0	0.0	26.8	-100.0	0.0	22.4	-100.0	0.0	16.5	-100.0	125.5	38.4	226.7	36.5	233.8	-84.4	669.3	418.5	59.9
7	Cuttack	0.0	9.9	-100.0	27.5	28.6	-4.0	42.6	24.7	72.5	0.0	28.3	-100.0	158.0	71.5	120.9	60.6	210.0	-71.1	525.4	308.3	70.4
8	Deogarh	0.0	14.1	-100.0	53.0	27.0	96.2	27.8	20.6	35.0	0.0	21.3	-100.0	52.1	41.9	24.3	114.5	242.4	-52.8	513.1	447.7	14.6
9	Dhenkanal	1.3	10.5	-88.1	29.9	21.9	36.7	44.8	33.7	32.8	0.0	41.3	-100.0	114.3	69.6	64.2	55.6	225.7	-75.4	530.8	317.9	67.0
10	Gajapati	0.0	8.1	-100.0	5.9	23.0	-74.5	63.1	41.3	52.9	59.6	65.2	-8.6	263.4	107.8	144.3	100.6	199.7	-49.6	310.3	230.6	34.6
11	Ganjam	0.0	9.4	-100.0	11.2	24.1	-53.6	55.5	32.6	70.2	13.0	36.6	-64.4	113.4	65.4	73.4	84.2	168.3	-50.0	370.3	220.8	67.7
12	Jagatsinghpur	0.0	14.5	-100.0	8.8	21.7	-59.7	20.0	35.5	-43.7	12.8	25.4	-49.8	153.0	78.0	96.2	72.5	202.3	-64.2	479.9	277.3	73.1
13	Jajpur	0.0	12.9	-100.0	53.4	25.1	112.7	60.8	28.4	114.1	26.1	46.1	-43.4	163.8	93.7	74.8	98.1	238.5	-58.9	492.3	350.9	40.3
14	Jharsuguda	0.0	14.1	-100.0	18.9	22.9	-17.6	44.4	17.6	152.3	0.0	15.1	-100.0	43.9	27.9	57.2	105.2	218.8	-51.9	381.4	385.8	-1.1
15	Kalahandi	0.0	10.3	-100.0	5.6	14.4	-61.0	14.7	23.7	-38.0	6.5	25.7	-74.9	176.5	41.8	322.3	102.7	240.4	-57.3	618.4	327.7	88.7
16	Kandhamal	0.0	10.6	-100.0	21.6	29.7	-27.4	15.8	28.0	-43.7	34.4	35.7	-3.6	160.2	67.8	136.3	57.5	207.9	-72.4	557.9	325.1	71.6
17	Kendrapara	0.0	10.6	-100.0	24.1	30.2	-20.2	68.7	35.0	96.2	0.0	33.9	-100.0	189.9	94.2	101.6	121.0	208.3	-41.9	396.3	317.1	25.0
18	Keonjhar	0.0	14.6	-100.0	30.4	33.8	-10.1	24.7	33.1	-25.2	12.9	42.1	-69.4	78.4	94.8	-17.3	130.2	241.4	-46.1	427.7	318.0	34.5
19	Khordha	0.0	12.4	-100.0	10.7	24.3	-56.2	44.1	22.1	99.3	9.4	28.0	-66.4	137.0	60.7	125.7	43.5	196.2	-77.8	469.0	304.9	53.8
20	Koraput	1.8	5.7	-68.0	4.0	8.6	-53.2	44.6	18.3	143.8	37.1	55.2	-32.8	104.5	81.9	27.5	156.4	206.8	-24.4	509.7	375.6	35.7
21	Malkangiri	16.7	2.7	518.5	3.3	4.1	-19.5	14.6	8.9	63.7	17.4	34.8	-50.0	50.3	49.1	2.4	89.2	212.2	-58.0	456.9	465.7	-1.9
22	Mayurbhanj	30.9	10.3	200.1	50.9	28.0	81.8	47.2	40.2	17.3	24.2	52.5	-53.8	143.4	101.2	41.7	175.6	265.8	-33.9	440.4	337.3	30.6
23	Nawarangpur	1.2	6.7	-82.1	0.0	14.1	-100.0	43.6	15.1	188.9	37.5	34.1	9.9	91.8	66.1	38.9	246.8	251.8	-2.0	581.4	356.6	63.0
24	Nayagarh	21.6	11.7	84.9	31.7	28.6	10.8	65.2	30.0	117.5	10.6	39.9	-73.6	133.2	58.8	126.5	66.7	203.5	-67.2	468.0	288.5	62.2
25	Nuapara	0.0	12.0	-100.0	9.7	14.6	-33.8	28.3	19.7	43.9	8.1	21.8	-62.8	158.9	31.2	409.2	138.1	210.3	-34.3	534.1	347.1	53.9
26	Puri	0.0	10.9	-100.0	3.7	25.4	-85.3	31.4	15.5	102.8	0.0	18.5	-100.0	123.6	62.1	99.1	79.4	188.0	-57.8	558.2	292.0	91.1
27	Rayagada	0.0	9.6	-100.0	10.9	22.9	-52.3	48.2	38.0	26.8	34.4	52.7	-34.7	227.1	87.8	158.7	78.4	195.3	-59.9	425.3	259.5	63.9
28	Sambalpur	0.0	14.8	-100.0	21.1	24.5	-13.7	15.0	18.2	-17.6	2.6	16.5	-84.1	38.6	32.3	19.5	93.6	221.0	-57.6	491.8	429.5	14.5
29	Sonepur	0.0	12.5	-100.0	34.2	17.2	98.6	6.5	15.7	-58.6	3.2	15.4	-79.4	87.8	29.3	199.8	69.0	217.4	-68.3	757.8	399.6	89.6
30	Sundargarh	6.2	15.1	-59.1	34.0	24.9	36.7	29.9	16.0	87.1	1.2	16.0	-92.6	61.4	40.6	51.1	111.4	237.4	-53.1	442.9	386.4	14.6
Total		82.8			658.7			1046.7			426.6			3936.6			2978.0			15059.0		
State Average		2.8	11.4	-75.8	22.0	22.9	-4.1	34.9	25.5	36.8	14.2	33.1	-57.0	131.2	63.3	107.3	99.3	216.5	-54.1	502.0	339.9	47.7

Contd..

Sl. No.	DISTRICT	AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER			Annual		
		Actual	Normal	% of Dev	Actual	Normal	% of Dev	Actual	Normal	% of Dev	Actual	Normal	% of Dev	Actual	Normal	% of Dev	Actual	Normal	% of Dev
1	Angul	401.6	357.5	12.3	262.4	217.5	20.6	96.6	86.3	12.0	0.0	20.4	-100.0	0.0	3.3	-100.0	1581.6	1401.9	12.8
2	Balasore	490.0	332.1	47.5	316.3	267.6	18.2	134.1	170.5	-21.3	0.0	34.6	-100.0	0.0	5.5	-100.0	1931.2	1592.0	21.3
3	Bargarh	462.3	374.4	23.5	294.1	222.6	32.1	33.4	52.8	-36.7	0.0	10.4	-100.0	0.1	5.1	-98.4	1710.8	1367.3	25.1
4	Bhadrak	344.6	311.7	10.5	258.6	216.8	19.3	138.7	145.3	-4.5	0.0	37.3	-100.0	0.0	4.9	-100.0	1477.3	1427.9	3.5
5	Bolangir	339.3	333.6	1.7	204.6	237.4	-13.8	29.2	68.4	-57.3	0.0	7.2	-100.0	0.0	2.3	-100.0	1411.6	1289.8	9.4
6	Boudh	458.6	488.8	-6.2	343.0	244.8	40.1	57.8	90.5	-36.2	0.0	21.1	-100.0	0.0	4.4	-100.0	1690.6	1623.0	4.2
7	Cuttack	425.8	339.1	25.6	311.8	229.2	36.0	192.8	125.6	53.5	0.0	45.0	-100.0	0.0	4.1	-100.0	1744.5	1424.3	22.5
8	Deogarh	439.7	443.4	-0.8	326.0	228.2	42.9	57.5	84.4	-31.9	0.0	8.0	-100.0	0.0	3.5	-100.0	1583.5	1582.5	0.1
9	Dhenkanal	313.1	344.8	-9.2	234.9	220.6	6.5	105.3	104.4	0.8	0.0	36.2	-100.0	0.0	2.2	-100.0	1429.8	1428.8	0.1
10	Gajapati	358.4	253.6	41.3	362.1	237.9	52.2	389.9	168.6	131.3	23.4	61.8	-62.2	2.5	5.7	-57.0	1939.1	1403.3	38.2
11	Ganjam	276.5	246.8	12.0	295.2	216.3	36.5	175.3	177.7	-1.4	0.0	71.1	-100.0	5.9	7.1	-16.5	1400.4	1276.2	9.7
12	Jagatsinghpur	286.1	379.1	-24.5	362.4	241.4	50.1	126.0	151.1	-16.6	0.0	80.4	-100.0	0.0	7.9	-100.0	1521.4	1514.6	0.4
13	Jajpur	413.5	341.2	21.2	230.2	238.0	-3.3	142.8	140.2	1.9	0.0	41.0	-100.0	0.0	3.9	-100.0	1681.0	1559.9	7.8
14	Jharsuguda	434.0	382.9	13.3	304.3	210.7	44.4	40.7	54.9	-25.9	0.0	7.7	-100.0	0.8	4.4	-81.4	1373.5	1362.8	0.8
15	Kalahandi	408.3	355.4	14.9	347.5	204.6	69.9	58.8	74.0	-20.6	1.0	10.9	-90.8	0.0	1.6	-100.0	1740.0	1330.5	30.8
16	Kandhamal	321.6	330.8	-2.8	315.6	239.1	32.0	163.3	117.7	38.7	0.0	31.0	-100.0	0.7	4.5	-85.2	1648.5	1427.9	15.4
17	Kendrapara	328.4	333.3	-1.5	295.3	237.3	24.5	136.1	183.7	-25.9	0.0	67.2	-100.0	1.4	5.2	-72.2	1561.3	1556.0	0.3
18	Keonjhar	367.5	343.6	7.0	158.8	241.1	-34.1	108.9	101.3	7.5	0.0	20.5	-100.0	0.1	3.4	-96.8	1339.6	1487.7	-10.0
19	Khordha	276.6	320.6	-13.7	281.0	234.5	19.8	142.7	149.3	-4.5	0.0	50.4	-100.0	0.0	5.0	-100.0	1413.8	1408.4	0.4
20	Koraput	400.6	393.6	1.8	258.8	256.3	1.0	202.3	126.1	60.4	3.1	32.6	-90.6	4.0	6.5	-38.5	1726.8	1567.2	10.2
21	Malkangiri	339.8	472.8	-28.1	317.4	281.2	12.9	185.7	109.5	69.6	17.6	23.6	-25.3	0.7	3.0	-76.2	1509.6	1667.6	-9.5
22	Mayurbhanj	403.4	359.9	12.1	195.5	262.0	-25.4	87.8	114.1	-23.1	0.0	21.6	-100.0	0.2	7.3	-97.4	1599.4	1600.2	0.0
23	Nawarangpur	467.5	407.5	14.7	388.5	225.6	72.2	98.9	168.6	-41.4	0.0	18.7	-100.0	0.0	4.6	-100.0	1957.2	1569.5	24.7
24	Nayagarh	309.2	288.2	7.3	198.2	226.8	-12.6	162.8	134.5	21.0	0.0	39.0	-100.0	0.0	4.8	-100.0	1467.1	1354.3	8.3
25	Nuapara	366.0	327.8	11.7	301.0	214.5	40.3	59.9	68.9	-13.0	0.0	15.3	-100.0	0.0	3.2	-100.0	1604.2	1286.4	24.7
26	Puri	278.7	297.9	-6.4	402.1	243.2	65.3	88.5	181.6	-51.3	0.0	67.3	-100.0	3.3	6.4	-48.3	1569.0	1408.8	11.4
27	Rayagada	377.2	273.7	37.8	309.4	199.1	55.4	139.2	109.7	26.9	9.0	32.9	-72.6	1.0	4.7	-78.7	1660.1	1285.9	29.1
28	Sambalpur	679.1	442.4	53.5	356.6	224.7	58.7	49.0	54.7	-10.4	0.0	12.7	-100.0	2.3	4.4	-47.5	1749.8	1495.7	17.0
29	Sonepur	520.5	408.9	27.3	399.8	228.0	75.4	26.5	59.8	-55.7	0.0	11.4	-100.0	0.0	3.3	-100.0	1905.3	1418.5	34.3
30	Sundargarh	416.6	393.9	5.8	200.6	211.5	-5.1	27.9	67.7	-58.8	0.0	8.7	-100.0	0.0	4.2	-100.0	1332.1	1422.4	-6.3
Total		11704.4			8831.9			3458.2			54.1			23.0			48260.0		
State Average		390.1	356.0	9.6	294.4	231.9	26.9	115.3	114.7	0.5	1.8	31.5	-94.3	0.8	4.5	-82.9	1608.7	1451.2	10.9

Rainfall during Monsoon 2014 (1st June to 30th September)

The State experienced average deficit rainfall of 54.1 percent in June, surplus rainfall of 47.7 percent in July, surplus rainfall of 9.6 percent in August and 26.9 percent in September, 2014 compared to the long term average rainfall. The cumulative average of rainfall statistics of the State from June to September, 2014 accounts for a surplus of 12.4 percent.

Month	Normal	Rainfall in MM	
		Actual	Deviation in %
June	216.5	99.3	-54.1
July	339.9	502.0	47.7
August	356.0	390.1	9.6
September	231.9	294.4	26.9

Block-wise analysis of the cumulative rainfall from 1st June to 30th September 2014 indicates that out of 314 Blocks in the State, 112 Blocks received surplus rainfall to the extent of above 19%, 173 Blocks received rainfall of between surplus 19% to less than 19% which is considered as normal, 25 Blocks received rainfall of above less than 19% to less than 39%, 4 Blocks received rainfall above less than 39% to less than 59% of the long-term average rainfall. Table below indicates district-wise position.

Sl. No.	DISTRICT	No. of Blocks having deviation (above 19%) : EXCESS	No. of Blocks having deviation (19% to -19%) : NORMAL	No. of Blocks having deviation (above -19% to -39%) : DEFICIT	No. of Blocks having deviation (above -39% to -59%) : SEVERE DEFICIT	No. of Blocks having deviation (above -59%) : SCANTY
1	Angul	4	4			
2	Balasore	8	4			
3	Bargarh	6	6			
4	Bhadrak		6	1		
5	Bolangir	4	9		1	
6	Boudh	1	2			
7	Cuttack	7	6			
8	Deogarh		3			
9	Dhenkanal	2	6			
10	Gajapati	3	5			
11	Ganjam	10	12			
12	Jagatsinghpur	2	5	1		
13	Jajpur	4	5	1		
14	Jharsuguda	2	3			

15	Kalahandi	4	8	1		
16	Kandhamal	6	4	2		
17	Kendrapara	2	7			
18	Keonjhar	3	8	1	1	
19	Khordha	2	6	2		
20	Koraput	4	7	3		
21	Malkanagiri		5	1	1	
22	Mayurbhanj	4	16	5	1	
23	Nawarangpur	8	2			
24	Nayagarh	1	5	2		
25	Nuapara	3	2			
26	Puri	6	5			
27	Rayagada	6	5			
28	Sambalpur	3	6			
29	Subarnapur	6				
30	Sundargarh	1	11	5		
No. of Blocks		112	173	25	4	0
No. of Districts		27	29	12	4	0

Fig. 1.1. District-wise Rainfall for the year 2014

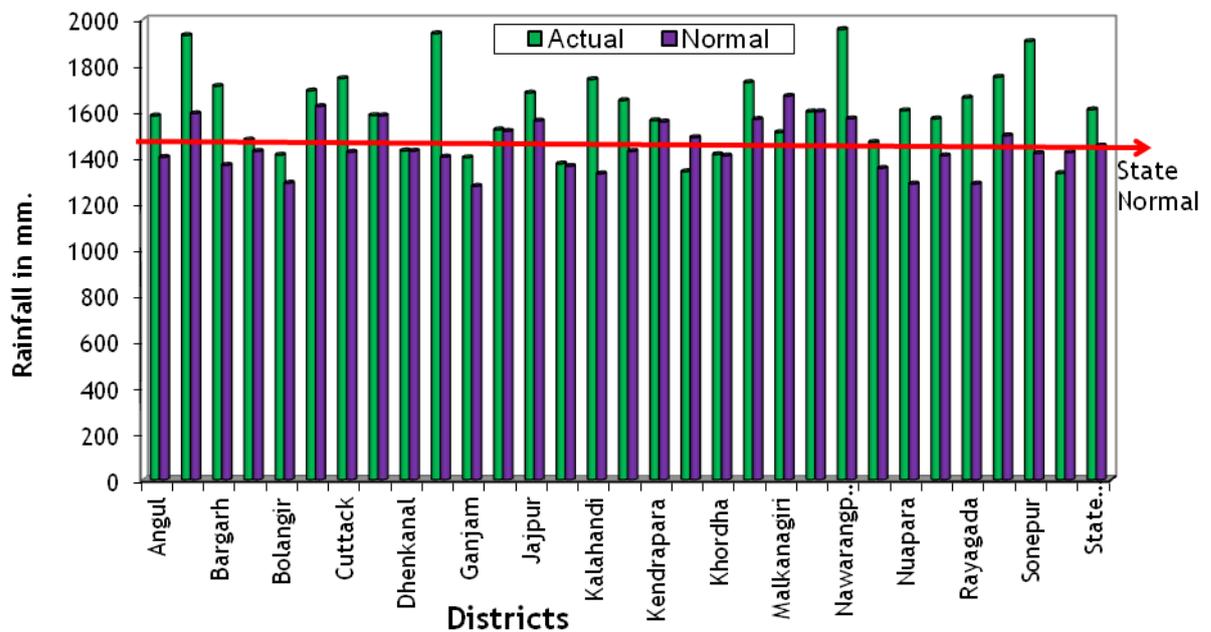


Fig.1.2. Month-wise Rainfall for the year 2014

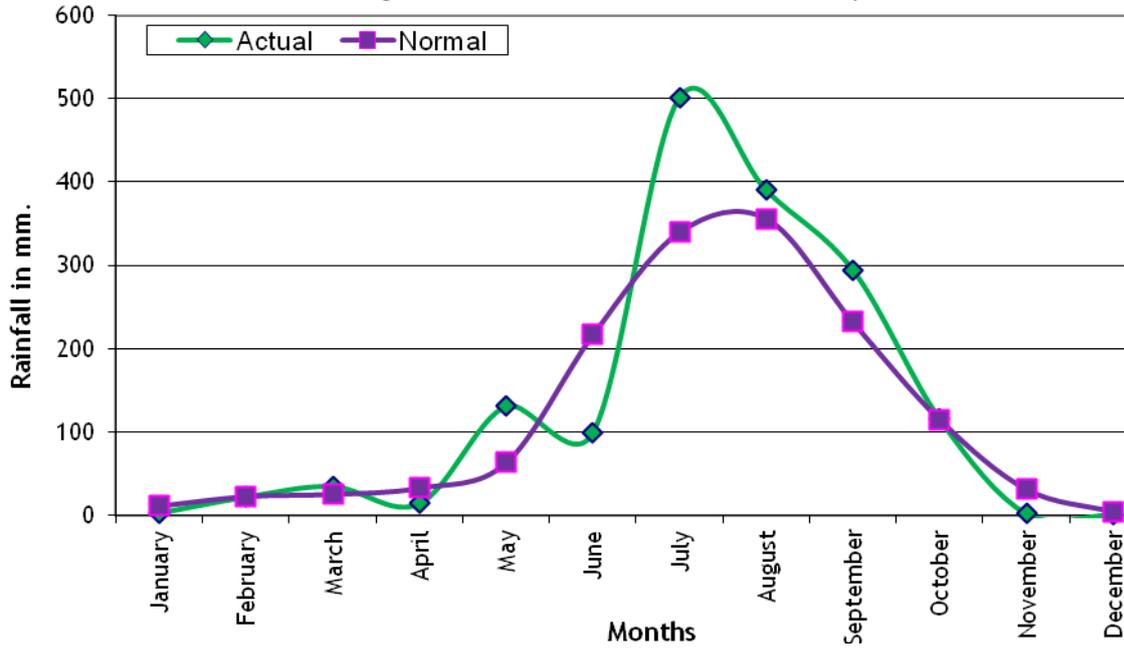
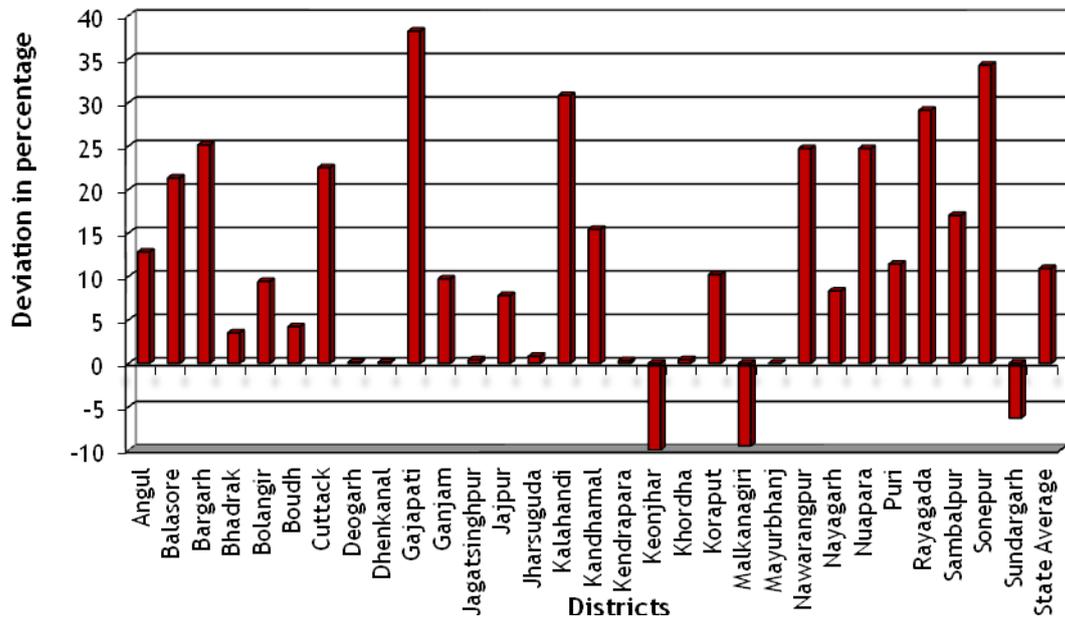
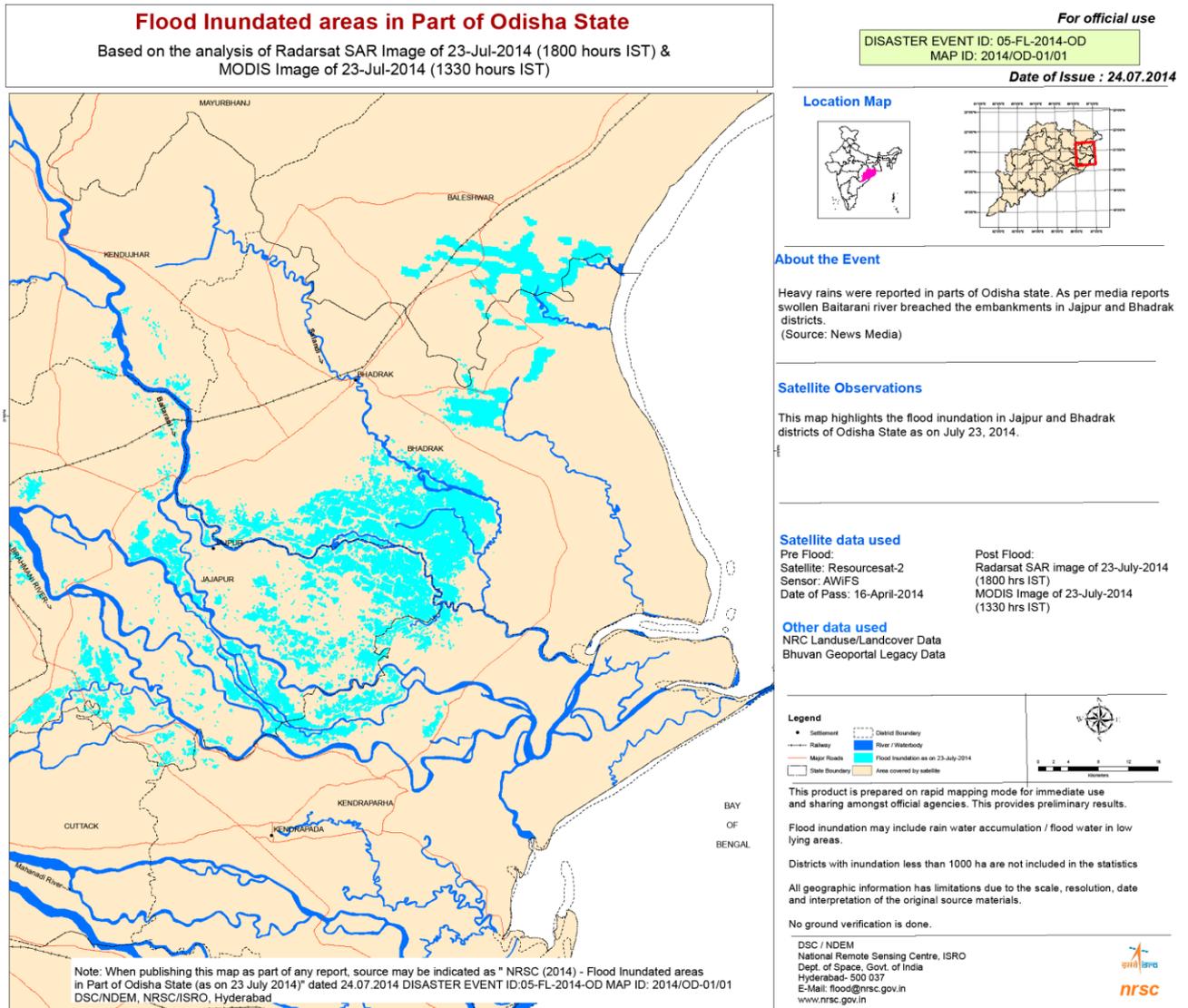


Fig.1.3. Rainfall Deviation of the Districts for the year 2014



CHAPTER – III

Heavy Rain & Floods



FLOODS, HEAVY RAIN & LAND SLIDE:

The State encountered flash floods due to heavy rainfall in 4(four) phases between July and September of 2014 in which, as many as 27 districts of the State were affected. Three districts, viz- Ganjam, Gajapati and Malkangiri were only spared. About 40.00 lakh people were affected by such heavy rainfall and the resultant flash floods. Due to such heavy rainfall and flash floods, crop area of about 397538 ha. was affected and 49061 no. of houses were damaged. As many as 61 persons and 187

cattle lost their lives due to these floods. Besides, huge damage was caused to various public infrastructures.

Extent of damages due to heavy rainfall and floods

Sl.	Extend of damages	1st Phase : 19.07.2014 to 22.07.2014	2nd Phase : 27.07.2014 to 30.07.2014	3rd Phase : 03.08.2014 to 16.08.2014	4th Phase : 05.09.2014 to 08.09.2014
1	No. of affected districts	10	6	23	5
2	No. of affected villages	447	4	5573	-
3	Population affected (in lakh)	367761	6503	3645101	-
4	No. of human lives lost	12	3	43	3
5	Crops affected (in hectare)	29479	368	367691	-
6	No. of houses damaged	1351	1757	45953	-
7.	No. of livestock lost	-	38	149	-

Date-wise development of the cyclonic system

On **06.10.2014**, a message was received from the India Meteorological Department that a low pressure area was formed over Tenasserim Coast and adjoining Andaman Sea at 08.30 hours IST, which was predicted to concentrate into a Well Marked Low Pressure Area during the next 24 hours and further concentrate into a depression during the subsequent 24 hours. The date-wise development of the cyclonic system as communicated by the India Meteorological Department is indicated below:

07.10.2014, Time- 1230 Effective (EF)

Yesterday's low pressure area over Tenasserim Coast and adjoining Andaman Sea has concentrated into a Depression and lay centred at 0830 hours IST today, the 7th October, 2014 over North Andaman Sea and Neighbourhood about 1380 Km Southeast of Gopalpur. It would move in a West-Northwesterly direction and intensify into a Deep Depression within 24 hours and further intensify into a **Cyclonic Storm** thereafter.

08.10.2014, Time- 1230 EF

The deep depression over north Andaman Sea intensified into a Cyclonic Storm 'Hudhud' and lay centred at 8.30 hrs over north Andaman Sea close to Long Island. After crossing the Long Island, the system would continue to move west-northwestwards, intensify further into a severe cyclonic storm during next 24 hours and subsequently into a very severe cyclonic storm during subsequent 36 hours. The system would cross north coastal Andhra Pradesh and South Odisha coast between Visakhapatnam and Goplapur around noon of 12th October 2014.

09.102014, Time- 1730 EF

The severe cyclonic storm 'Hudhud' over East-central Bay of Bengal moved west-northwestward and lay centred at 1430 hrs IST near latitude 14.0°N and longitude 88.6°E about 700 km southeast of Gopalpur. The system would continue to move west-northwestwards, and intensify further into a very severe cyclonic storm during next 24 hours. The system would cross north Andhra Pradesh coast around Visakhapatnam by the forenoon of 12th October 2014.

10.10.2014, Time- 1230 EF

The severe cyclonic storm 'Hudhud' lay centred about 57 km south-southeast of Gopalpur at 08.30 hrs today (10.10.14). The system is likely to intensify into a very severe cyclonic storm during next 12 hours and make landfall around Visakhapatnam in Andhra Pradesh by forenoon of 12th October, 2014.

11.10.2014, Time- 0900 EF

The IMD issued the Warning-Seven (**ORANGE MESSAGE**) for South Odisha Coast on Very Severe Cyclone Storm 'Hudhud' Cyclone stating that the Cyclonic Storm over westcentral Bay of Bengal moved westwards during past six hours and lay centered at 0830 hrs IST of 11th October, 2014 near latitude 15.9°N and longitude 85.4°E, about 380 km south-southeast of Gopalpur. The system would move west-northwestwards for some more time. It would then move northwestwards and cross north Andhra Pradesh coast around Visakhapatnam by the forenoon of 12th October, 2014.

11.10.2014, Time- 2100 EF

IMD issued the Warning-Ten (**RED MESSAGE**) for **south Odisha Coast** on the Very Severe Cyclonic Storm 'Hudhud'

According to latest observations, the Very Severe Cyclonic Storm 'Hudhud' over westcentral Bay of Bengal moved west-northwestwards during past six hours and lay centered at 1730 hrs IST of 11th October, 2014 near latitude 16.2°N and longitude 84.8°E, about 230 km southeast of Visakhapatnam and 340 km south-southeast of Gopalpur. The system would move northwestwards and cross north Andhra Pradesh coast close to Visakhapatnam around noon of 12th October, 2014.

12.10.2014, Time- 0500 EF

IMD issued the Warning- TWELVE (**RED MESSAGE**) for **South Odisha Coast** on Very Severe Cyclonic Storm 'Hudhud'. According to latest observations, the Very Severe Cyclonic Storm 'Hudhud' over west central Bay of Bengal moved slightly north-westwards with a speed of about 6 kmph during the last 06 hours and lay centered at 2330 hrs IST of 11th October, 2014 near latitude 16.4°N and longitude 84.7°E, about 210 km southeast of Visakhapatnam and 320 km south of Gopalpur. The system

would move northwestwards and cross north Andhra Pradesh coast close to Visakhapatnam around noon, the 12th October, 2014.

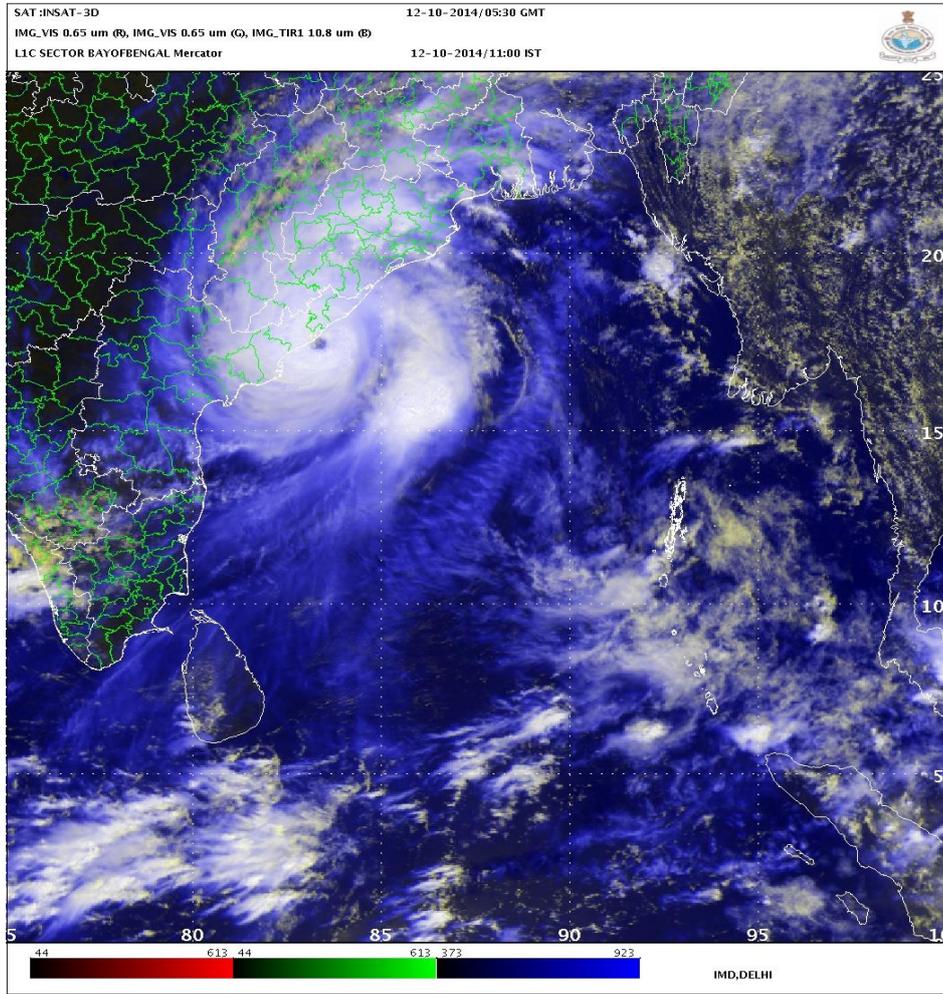
12.10.2014, Time- 0630 IST

IMD issued the Cyclone Warning for north Andhra Pradesh & south Odisha coasts (**Red Message**) and post landfall outlook on Very Severe Cyclonic Storm 'Hudhud' over west central Bay of Bengal and it moved northwestwards with a speed of about 15 kmph during the last 06 hours and lay centered at 0530 hours IST of 12th October, 2014 near latitude 17.2°N and longitude 84.2°E, about 100 km southeast of Visakhapatnam and 240 km south-southwest of Gopalpur. The system would move northwestwards and cross north Andhra Pradesh coast close to Visakhapatnam around noon, the 12th October, 2014.

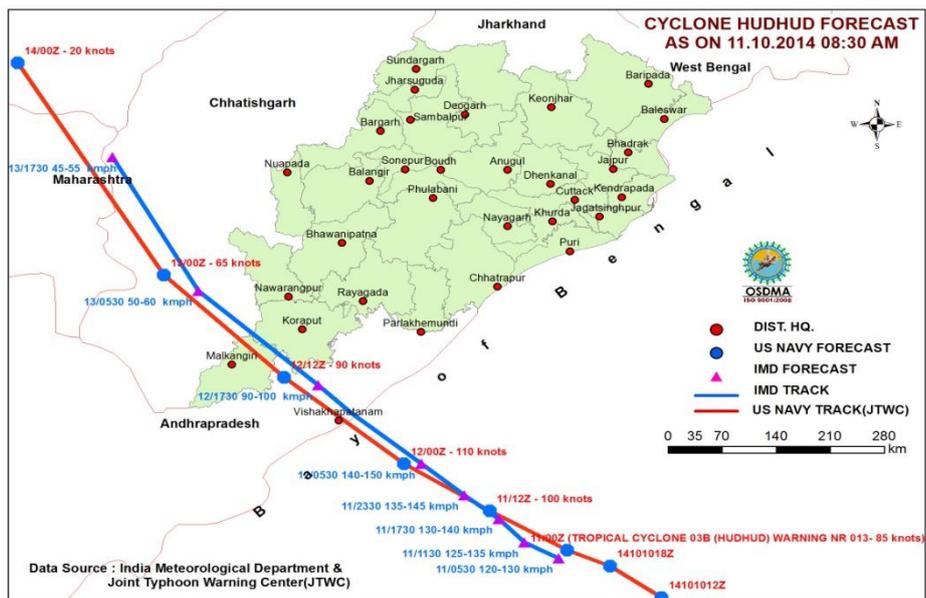
Tracking of the Very Severe Cyclonic Storm 'Hudhud'

Date	Time	Watch/Observation
08.10.2014	9.00AM	1170 Km South East of Gopalpur
	12.30 AM	1150 Km South East of Gopalpur
	6.00AM	1010 Km South East of Gopalpur
09.10.2014	5.00AM	890 Km South East of Gopalpur
	12.00 Noon	750 Km South East of Gopalpur
	11.30 PM	670 Km South East of Gopalpur
10.10.2014	9.00AM	610 Km South South East of Gopalpur
	12.30PM	570 Km South South East of Gopalpur
	4.30PM	520 Km South South East of Gopalpur
11.10.2014	12.00 Noon	380 Km South South East of Gopalpur
	9.00PM	340 Km South South East of Gopalpur
12.10.2014	5.00AM	320 Km South of Gopalpur
	11.30AM	Close to Visakhapatnam & system is crossing the coast
	1.00PM	270 Km South East of Gopalpur
	6.00PM	260 Km South East of Gopalpur

Satellite imagery of Cyclone 'Hudhud' at 11 AM on 12/10/2014



Track of Cyclone 'Hudhud' depicted on Odisha Map



Wind Speed

The very severe cyclonic storm 'Hudhud' passed through the district of Malkangiri adjoining Koraput district in the evening of 12th October 2014. Under its impact, the Southern districts of Odisha had experienced the wind speed of 80-100 kmph.

Rainfall (from 11th to 14th October 2014)

Due to the effect of cyclonic storm, heavy rainfall occurred in many parts of the affected districts from 11th to 14th October 2014. The cumulative amount of rainfall during this spell was as high as 319.9 mm in Gajapati district. The average rainfall of the affected districts recorded on 12th and 13th of October 2014 is indicated below:

(Rainfall in mm)

Sl.	District	12 th	13 th
1	Gajapati	32.0	209.7
2	Ganjam	44.2	82.6
3	Jagatsinghpur	52.9	41.1
4	Kalahandi	12.3	25.6
5	Kandhamal	12.3	109.1
6	Kendrapara	59.3	17.1
7	Keonjhar	18.1	64.1
8	Khordha	30.4	58.5
9	Koraput	12.2	154.4
10	Malkangiri	0.0	123.2
11	Mayurbhanj	18.6	41.8
12	Nabaranghpur	8.7	68.0
13	Puri	22.4	17.7
14	Rayagada	8.9	94.7
15	Dhenkanal	25.4	53.3

The following blocks received rainfall more than 200 MM on a single day due to the impacts of the cyclone.

Sl. No	District	Block	Rainfall received (in MM) Dt.13.102014
1	Koraput	Narayanpatna	290.0
2		Laxmipur	270.0
3		Pottangi	244.2
4		Similiguda	211.0
5	Gajapati	R.Udayagiri	257.6
6		Rayagada	243.0
7		Mohana	240.0
8		Gosani	226.0
9		Gumma	213.0

Floods

Due to heavy rainfall from 11th to 13th October 2014, besides flash floods in the hilly areas and small tributaries, the river Vansadhara witnessed flash flood affecting the downstream areas of Gajapati and Rayagada districts. The water level of the river recorded on 11th to 13th of October 2014 is indicated below:

River	Forecast Station	Danger Level	Warning Level	Water Level in Meter		
				11 th	12 th	13 th
Vansadhara	Kashinagar	54.60	53.60	54.35	54.48	55.28

Preparedness and Response

On 7th of October 2014, upon receipt of the forecast of the India Meteorological Department regarding the concentration of the low pressure into a depression which was likely to further intensify into a cyclonic storm by the 8.10.2014, the same was instantly circulated among the Collectors of 16 districts namely Balasore, Bhadrak, Kendrapada, Jagatsinghpur, Jajpur, Puri, Ganjam, Mayurbhanj, Cuttack, Khordha, Nayagarh, Gajapati, Dhenkanal, Keonjhar, Malkangiri and Koraput, which were likely to be affected, with instruction to remain in full preparedness to meet any eventuality. They were further instructed to ensure the attendance of all the officials in their respective positions and to recall those on leave.

Instructions were also given to immediately activate the District Emergency Operation Centre (DEOC) to function round the clock with adequate manpower, essential equipment and other logistics. It was stressed upon to scrupulously follow the weather bulletins sent by the IMD to keep themselves updated about the movement and location of the cyclonic storm for undertaking all the required preparedness measures.

On 8th October 2014, the Chief Secretary, who is the Chairman of the State Executive Committee (SEC), took a meeting of the Secretaries of all the related Departments to review the preparedness measures. Hon'ble Chief Minister also took stock of the situation in a meeting of all the Secretaries of the key Departments and gave direction for ensuring all the required preparedness measures to encounter the impending disaster and to ensure Zero Casualty. The Chief Secretary issued detailed instructions to all Departments of the Government, all Revenue Divisional

Commissioners, all Collectors and the Managing Director, OSDMA with regard to preparedness measures to be taken for effectively combating the disaster taking into account the District Disaster Management Plan.

On 9th October, forecast of heavy to very heavy rainfall in southern districts of Odisha was received from the IMD with the prediction of flash floods. Keeping the forecast in view, Collectors of 8 districts of southern Odisha were cautioned about the flash floods due to possible heavy to very heavy rainfall from 11th evening onwards. In view of the possible wind and flash floods, instructions were issued to start evacuation of people living in kutcha houses and other vulnerable conditions in the areas likely to be affected to cyclone / flood shelters and other pucca buildings identified as shelters. Specific instruction was given to take special care to shift the old, infirm, physically challenged, women and children to safer places and cyclone shelters much before the occurrence of the disaster. Besides, evacuation of the livestock and domestic animals to safer places was also advised.

Instructions were given to ensure restoration of road communication within 12 - 24 hours by cutting the fallen trees along with restoration of electricity and water supply within 12-48 hours. The Odisha Disaster Rapid Action Force (ODRAF), Fire Service Units and the National Disaster Response Force (NDRF) stationed in Odisha were kept on alert for their eventual deployment on short notice for evacuation, search and rescue operations.

In response to the instructions –

- Control rooms in different departments and district offices were immediately activated and started functioning round the clock. The Departments ensured their Field Officers remained in their respective positions.
- With a Mission to achieve ZERO CASUALTY, Collectors of the district likely to be affected prepared the evacuation plan in respect of their districts giving highest priority to most vulnerable villages/ habitations.
- All cyclone and flood shelters were kept in readiness for the evacuees. The water supply, lighting and sanitation arrangements in the shelters were checked and curative measures taken.
- Required arrangements (especially food, water, light, medicine) were made at the shelter places for the evacuees.

- As flood is always associated with cyclone, necessary boat arrangements were made in advance to take up rescue and relief operations for the likely flood.
- Water level of Dams and MIPs was carefully monitored.
- Arrangements were made for pre-positioning adequate food materials including baby food for the affected people.
- Availability of sufficient food stuff in hostels of all residential schools of ST & SC Development Department and other Departments in the cyclone prone areas were ensured by the Collectors and the Departments concerned.
- Adequate stock of POL was ensured by FS&CW Department in the districts likely to be affected by the cyclone.
- Advance arrangements for supply of safe drinking water were made. Concerned departments made arrangements to run the pump sets with generators in absence of electricity and for supply of adequate portable water through tankers and in pouches in affected areas including the shelter places.
- Stocking of required medicines and arrangements for deployment of mobile medical teams was ensured.
- Advance arrangements for cattle health care and supply of cattle feed was made for the affected cattle population.
- Works, Rural Development, Panchayati Raj and Housing & Urban Departments made necessary advance arrangements for immediate restoration of road communication to facilitate movement of relief materials to the affected areas. Similar advance arrangements were made for restoration of power supply in case of breakdown.
- The Fishermen were called back from the sea.
- Police arrangement was made for maintenance of law and order to check stealing/ loot of public properties and relief materials which are usually on rise in the immediate aftermath of a disaster.

On 10th of October, 2014, after detailed assessment of the situation, 15 units of National Disaster Response Force (NDRF), 10 teams of Odisha Disaster Rapid Action Force (ODRAF) & Fire Service units were deployed in districts likely to be affected by the cyclone and associated flood for search, rescue and evacuation operations. One team of NDRF was kept on standby for reinforcement wherever necessary. 14 satellite

phones were obtained from the Government of India and provided to the Collectors of different districts and key officers at State level.

Mock drill was conducted on 10.10.2014 in all the 323 Multi-purpose Flood / Cyclone Shelters in the State with active participation of community members. Various emergency equipments provided to the cyclone shelters including Generators, Water Pumps, Inflatable Tower Lights and Mechanized Tree Cutters, etc. was test-checked in course of the drill.

Hon'ble Chief Minister reviewed the situation through video Conferencing with the Collectors of 7 districts namely Malkangiri, Koraput, Rayagada, Nabarnapur, Gajapati, Ganjam and Kalahandi at 6.15 PM. Holidays on 11.10.2014 (2nd Saturday) and 12.10.2014 (Sunday) were cancelled and all offices of the State Government including that of the PSUs remained open.

The evacuation of vulnerable population was carried out from 11th of October, 2014. The evacuees were housed in multi-purpose cyclone / flood shelters as well as other identified safe buildings. As many as 255043 people were evacuated and kept in 2143 shelters in 11 districts. The district wise evacuation position is mentioned below:

Sl. No	District Name	Population	No. of Shelters
1	Gajapati	76396	655
2	Ganjam	26258	294
3	Koraput	66494	426
4	Malkangiri	41985	222
5	Puri	6300	13
6	Rayagada	7217	37
7	Nabarangpur	14624	103
8	Kendrapara	396	1
9	Kandhamal	1370	6
10	Kalahandi	11851	381
11	Khordha	2152	5
	Total	255043	2143

Free kitchen

People evacuated and placed in cyclone shelters & other relief camps were provided with adequate quantities of dry food and cooked food through 2143 free kitchen centres opened at such shelters/ relief camps.

Even as all required preparedness measures had been undertaken by various Departments and the officers in the districts, the status of preparedness was constantly reviewed and monitored at the level of Chief Secretary and the Hon'ble Chief Minister. On 12th October 2014, Hon'ble Chief Minister personally visited the State Emergency Operations Centre and reviewed the situation.

The very severe cyclonic storm 'Hudhud' after it made landfall around noon on the 12th October 2014 close to Visakhapatnam in north Andhra Pradesh coast, passed through the district of Malkangiri adjoining Koraput district of Odisha in the evening of the same day affecting the Southern districts of Odisha. Due to the impact of high wind speed and heavy rainfall, lives and properties were severely affected in Southern districts. Roads were blocked due to uprooting of huge number of trees and electric poles. Other infrastructures and individual dwelling houses were also damaged.

Clearance of Roads

Soon after the cyclone subsided, the Departments of Works, Rural Development, Panchayati Raj and Housing & Urban Development Department took immediate steps for cutting of the fallen trees to clear the roads and to restore the road connectivity. JCB and other heavy earth moving equipments were used to clear the roads. The Police, ODRAF, NDRF and Fire Service units assisted them in the work. Most of the roads up to Block level were cleared within 2 days.

Restoration of electricity

The energy infrastructures were the worst affected among all public properties. Due to high wind speed, the distribution infrastructure particularly 11Kv, 33Kv and LT lines and Distribution Transformers suffered heavy damage in most of the southern districts by 'Hudhud' and heavy rains. A huge 7,73,691 number of electrical consumers were affected with 239.95 km of 33 KV lines, 2155.99 km of 11 KV lines and 1088.75 km of LT Lines, 1754 nos. of distribution transformers and 8 nos. of power transformers were damaged. Since adequate manpower and materials were mobilized by the DISCOMs and District Administration, power supply was restored expeditiously.

Emergent Relief

Emergent relief was sanctioned for a period of 1 to 4 days for the affected people of the cyclone affected Districts. Emergent relief in shape of chuda, gud and rice was distributed to the people in dire need of sustenance in the cyclone affected villages. In addition to dry food, candles, matchboxes, kerosene and other essential materials were distributed.

Sl. No.	District	No. of days provided	Emergent Relief Distributed(in Qtl.)			Beneficiary covered
			Rice	Chuda	Gud	
1	Gajapati	03	4398.86	451.00	86.00	167576
2	Ganjam	03	63.12	250.00	19.99	26258
3	Kalahandi	02	56.41	61.59	9.31	11851
4	Kandhamal	01	0.00	2.10	0.50	1370
5	Kendrapara	03	0.00	09.00	1.05	3065
6	Khordha	01	0.00	3.00	0.55	2152
7	Koraput	04	446.00	16.00	13.00	66894
8	Malkangiri	01	110.41	103.30	25.02	41985
9	Nabaranghpur	02	61.52	81.75	12.00	20155
10	Puri	01	0.00	25.10	2.51	2455
11	Rayagada	02	02.00	02.00	0.50	2500
	Total		5138.32	1004.84	170.43	346261

An amount of Rs.1.24 crore was provided to different districts towards Food assistance.

Drinking Water

Anticipating the problem in piped water supply due to disruption of power supply on the impact of cyclone, as many as 606 DG sets were hired to run the water supply systems. Steps were taken to provide safe drinking water in the cyclone affected areas deploying 760 water tankers. 1790 mobile vans were deployed for disinfection of tube wells and restoration of damaged tube wells and piped water supply projects. Besides, 562000 water pouches were distributed.

Sl. No	Name of the RWSS Division	Water pouches distributed	DG Set hired	Bleaching powder distributed (25 Kg.bag)	Water tanker deployed	Mobile Van deployed
1	Berhampur	200000	110	220	0	220
2	Bhanjanagar	137000	70	236	30	220

3	Gajapati	75000	120	67	170	180
4	Bhawanipatna	35000	11	300	150	170
5	Kandhamal	55000	80	140	140	250
6	Koraput	15000	50	146	100	130
7	Malkangiri	30000	123	255	140	140
8	Nabarangpur	10000	30	205	0	200
9	Rayagada	5000	12	100	30	280
	Total	562000	606	1669	760	1790

Disinfection of Drinking Water Sources

The cyclonic storm and the resultant heavy rainfall affected badly all the drinking water sources like tube wells, open wells, ponds etc. As many as 31,266 tube wells were disinfected. 1669 bags of bleaching powder each of 25 kg were distributed.

SI. No.	District	No. of wells disinfected	No. of tube wells disinfected by RWSS
1	Gajapati	161	3252
2	Ganjam	1125	4437
3	Kalahandi	0	8583
4	Kandhamal	0	4860
5	Koraput	0	5650
6	Malkangiri	25	2269
7	Nabaranghpur	62	2200
8	Rayagada	985	15
	Total	2358	31266

Health & Sanitation

In order to restore the health services in the affected areas, 268 medical teams and 406 medical relief centres were opened. 7,60,121 ORS packets, 40,98,496 Halogen tablets were supplied.

SI. No.	District	No. of medical centers opened	No. of Medical Team deployed	No. of ORS pkts. distributed	Halogen Tabs distributed
1	Gajapati	8	8	71100	1250000
2	Ganjam	94	94	328900	1760000
3	Kendrapara	01	01	0	0

4	Khordha	2	10	0	0
5	Koraput	225	86	96200	780000
6	Malkangiri	26	16	3821	19496
7	Nabaranghpur	30	30	260000	289000
8	Puri	11	11	0	0
9	Rayagada	09	12	100	0
	Total	406	268	760121	4098496

Animal Care

As many as 22,297 domestic animals were shifted to safer places. 106 veterinary doctors & 680 para-veterinary teams were deployed in the cyclone affected areas. 13140 nos. of livestock were treated and 26950 cattle vaccinated. 159 MT of cattle feed of high quality were distributed.

Sl. No.	District	No. of veterinary surgeons engaged	No. of animals treated	Quantity of cattle feed distributed (in Qtl)
1	Gajapati	09	1514	20
2	Ganjam	53	0	30
3	Koraput	17	7960	41
4	Malkangiri	06	3203	14
5	Mayurbhanj	05	0	0
6	Nabaranghpur	14	0	7
7	Rayagada	02	463	21
8	Puri	0	0	26
	Total	106	13140	159

Impact and Damages

Under the impacts of the cyclone, large part of the State was affected and huge damages had occurred in various sectors due to heavy cyclonic wind, torrential rainfall and consequent flooding. Further, large areas were inundated in Kendrapada and Puri districts due to storm surge.

As per the report received from Collectors, 33.44 lakh people in 9657 villages under 1276 GPs of 99 Blocks and 508 wards of 37 Urban Local Bodies in 15 Districts were affected due to the disaster. As many as 3 persons were reported to have lost their lives and two persons seriously injured in the disaster. In addition to the ex-gratia

assistance of Rs.1.50 lakh out of SDRF, an amount of Rs.2.00 lakh to the Next of Kins of each deceased and an amount of Rs.50,000/- to the seriously injured persons was paid out of Prime Minister's National Relief Fund.

The district-wise details of administrative units and population affected are given below.

Sl.	Name of the districts	Blocks affected (Nos.)	GPs affected (Nos)	Villages affected (Nos.)	ULB affected (Nos.)	Wards affected	Population affected (Nos.)	Human Causality
1	Gajapati	07	129	1528	02	30	578000	0
2	Ganjam	22	475	3115	18	280	1200000	0
3	Jagatsinghpur	01	06	08	0	0	565	0
4	Kalahandi	11	84	622	0	0	106795	0
5	Kandhamal	07	50	142	0	0	12000	0
6	Kendrapara	01	01	05	0	0	3065	02
7	Keonjhar	01	01	05	0	0	1197	0
8	Khordha	01	01	02	01	03	2152	0
9	Koraput	14	174	1204	04	27	393290	0
10	Malkangiri	07	81	663	02	34	127537	0
11	Mayurbhanj	01	01	01	0	0	215	0
12	Nabarangpur	10	109	328	02	10	62350	0
13	Puri	04	07	07	01	03	6300	01
14	Rayagada	09	148	2009	03	52	850000	0
15	Dhenkanal	03	09	18	04	69	500	0
Total		99	1276	9657	37	508	3343966	3

House Damage

As many as 8 pucca houses and 883 kutcha houses were fully damaged due to the cyclone and 9 pucca houses and 2,749 kutcha houses were severely damaged. Similarly, 343 pucca houses & 40,244 kutcha houses were partially damaged. These apart, 120 huts and 57 cowshed attached to houses were also damaged. The district-wise details are given below.

SI	District	Fully Damage			Severely Damage		Partially Damaged		Hut	Cattle shed	Total
		Pucca in plain area	Pucca in hilly area	Kutcha	Pucca	Kutcha	Pucca	Kutcha			
1	Gajapati	0	0	201	01	950	21	18146	0	0	19319
2	Ganjam	0	0	0	0	0	02	145	38	0	185
3	Jagatsinghpur	0	0	0	0	0	0	113	0	0	113

4	Kalahandi	03	0	01	03	37	0	298	0	0	342
5	Kandhamal	0	0	24	0	128	0	2060	0	0	2212
6	Keonjhar	0	0	0	0	04	0	262	0	0	266
7	Koraput	0	05	308	05	815	149	8799	76	01	10158
8	Malkangiri	0	0	214	0	349	171	2661	05	50	3450
9	Mayurbhanj	0	0	08	0	30	0	05	0	0	43
10	Nabarangpur	0	0	16	0	49	0	1127	01	06	1199
11	Rayagada	0	0	110	0	378	0	6574	0	0	7062
12	Dhenkanal	0	0	1	0	9	0	54	0	0	64
	Total	3	5	883	9	2749	343	40244	120	57	44413

An amount of Rs.12.35 crore towards HBA, Rs.59.87 lakh towards assistance for Clothing and Rs.64.48 lakh towards assistance for Utensils and household goods was provided to different districts for payment to the victims.

Crop Damage

As per the initial assessment, about 2,47,557 hectare of agriculture area were affected out of which, an area of 40,484.50 hectares had sustained crop-loss of more than 50% due to cyclonic storm.

Sl. No.	Name of affected district	Total Agricultural Area affected [in hectare]	Total Agricultural Area where crop loss is > 50% [in hectare.]
1	Gajapati	67865	30083.0
2	Ganjam	83645	286.0
3	Kalahandi	6101	82.0
4	Kandhmal	566	0.0
5	Koraput	41246	9666.0
6	Malkangiri	3130	325.0
7	Nabarangpur	24111	0.0
8	Rayagada	20893	42.5
	Total	247557	40484.5

Livestock Affected

Due to cyclone, 198 large animals and 472 small animals were lost and 39350 more livestock and poultry were affected.

Loss of livelihood

Damage to Sericulture Crops:

Due to cyclone, Standing mulberry crop in 210.8 hectares and Eri crop in 40.6 hectares of land belonging to 747 sericulture farmers have sustained loss to the extent of 50% and above.

Loss of Equipment and Materials of Traditional Artisans:

718 traditional craftsmen of Koraput & Malkangiri districts were affected with damage of their equipments and raw/ finished materials.

Damage to Nets and Boats of Fishermen:

Due to the cyclone, 30 boats, 171 fishing nets, 145 fish ponds with an area of 53.15 hectares and 101 no. of fish seed farms involving an area of 40.5 hectares were damaged. Fish farms to the extent of 53.15 hectare were also silted.

Damage to public properties

Massive damage was caused to public properties like electrical installations, water supply works, roads, bridges, culverts, embankments, drains, tube wells, Lift Irrigation points, telecommunication infrastructure, Government buildings, etc.

The Government took necessary steps for immediate restoration of the damaged infrastructure. An amount of Rs.5.00 crore was provided to the Energy Department for immediate restoration of power supply.

Memorandum to Government of India

The State Government submitted a Memorandum seeking central assistance of Rs.777.12 crore out of National Disaster Response Fund (NDRF) to meet the requirement on immediate relief and restoration. An Inter-Ministerial Central Team visited the affected areas during 18th-20th November, 2014. However, no fund has been sanctioned out of NDRF by the Government of India.

Chapter- V Other Calamities

Fire Accident

As many as 25 persons lost their lives due to fire accidents during the year 2014-15. Steps were taken to provide ex-gratia assistance @ Rs.1,50,000/- per deceased to Next of Kins out of the SDRF. Besides, funds were provided to different Collectors for disbursement of house building assistance along with assistance for clothing and utensils as per the Norms of Assistance from SDRF.

The details of Loss of Property due to Fire Accident and assistance provided during the year 2014-15

[In Rs.]								
Sl. No.	Name of the District	No. of accident	No. of villages affected	No. of families affected	approximate value of properties lost	No. of persons died	No. of cattle died	Relief provided towards HBA & Others
1	2	3	4	5	6	7	8	9
1	Angul	260	211	399	90,49,000	01		35,98,800
2	Balasore	414	277	412	1,69,80,200	02		28,05,300
3	Bargarh	9	8	9	1,07,900	02		4,07,900
4	Bhadrak	514	264	572	2,61,43,275	03	08	39,33,800
5	Bolangir	8	10	21	5,35,000	-	-	1,16,200
6	Boudh	79	79	152	41,94,260	-	-	8,49,800
7	Cuttack	713	342	672	21,4,06,156	03		36,64,756
8	Deogarh	43	40	43	4,57,000	-	02	1,75,600
9	Dhenkanal	340	205	593	1,66,62,800	01		57,43,100
10	Gajapati	117	42	147	32,86,500	-	-	12,35,050
11	Ganjam	512	347	1030	1,62,14,435	04		40,93,200
12	Jagatsinghpur	295	360	295	9,77,25,600	01	84	12,42,800
13	Jajpur	539	431	539	1,89,63,900	01	10	33,42,250
14	Jharsuguda	1	1	1	2300	-	-	2,300
15	Kalahandi	5	5	5	65,000	1	-	3,800
16	Kandhamal	89	77	100	32,40,800			5,33,300
17	Kendrapara	518	311	518	2,31,59,500	02	21	48,53,000
18	Keonjhar	55	55	112	50,19,000	-	-	2,66,550

19	Khordha	192	143	267	69,38,600	-	-	8,61,460
20	Koraput	69	64	102	15,07,200	01		2,26,100
21	Malkanagiri	25	25	25	55,000	-	-	10,400
22	Mayurbhanj	229	212	296	1,08,03,725	01		11,61,200
23	Nawarangpur	96	96	170	26,68,800	01	-	3,39,900
24	Nayagarh	204	175	313	60,37,800	01		12,52,100
25	Nuapara	08	08	08	2,32,500	-	-	27,300
26	Puri	423	340	638	1,07,77,300	-	12	28,70,000
27	Rayagada	41	129	129	38,82,600		16	7,91,400
28	Sambalpur	38	36	38	9,92,100			2,34,800
29	Subarnapur	72	72	111	23,85,900			3,32,300
30	Sundargarh	3	3	3	6800	-	-	-
Total		5911	4368	7720	3,09,500,951	25	153	44,974,466

Lightning

As many as 309 persons lost their lives due to lightning in 30 districts during the year 2014-15. Steps were taken to provide ex-gratia assistance @ 1,50,000/- per deceased to Next of Kins of the victims from the Chief Minister's Relief Fund.

Sl. No	Name of the District	No. of death
1	Angul	03
2	Bolangir	13
3	Bargarh	12
4	Balasore	17
5	Bhadrak	09
6	Boudh	01
7	Cuttack	18
8	Deogarh	02
9	Dhenkanal	17
10	Ganjam	20
11	Gajapati	07
12	Jagatsinghpur	12
13	Jajpur	21
14	Jharsuguda	01
15	Kalahandi	05

16	Kandhamal	01
17	Kendrapara	10
18	Keonjhar	18
19	Khurda	08
20	Koraput	10
21	Malkanagiri	04
22	Mayurbhanj	42
23	Nawarangpur	14
24	Nayagarh	05
25	Nuapara	05
26	Puri	02
27	Rayagada	14
28	Sambalpur	02
29	Sonepur	03
30	Sundargarh	13
	TOTAL	309

Heat Wave

Heat wave condition prevailed in the State in the months from April to June. A number of preparedness/ preventive measures were taken by the State Government for management of the heat wave situation like Information Education and Communication (IEC) activities through mass media for general awareness of the public, mitigating water scarcity problems, special arrangement of treatment of heat-stroke patients in Government Hospitals at different levels, rescheduling of working hour for labourers, provision of drinking water at work sites, restriction on plying of buses during peak hours, re-scheduling of time table of the school, etc.

Despite the measures taken by the Government, As many as 40 human lives were lost due to sunstroke during 2014. Ex-gratia assistance @ Rs.10,000/- was provided to each of the bereaved families from the Chief Minister's Relief Fund. The district-wise number of human casualties is given below:

Sl.	Name of the District	No. of persons died
1.	Angul	5
2.	Balasore	1
3.	Bhadrak	1
4.	Bolangir	5
5.	Cuttack	3
6.	Dhenkanal	2
7.	Ganjam	3
8.	Jajpur	2
9.	Kendrapara	6
10.	Keonjhar	2
11.	Khordha	1
12.	Mayurbhanj	5
13.	Sambalpur	2
14.	Subarnpur	1
15.	Sundargarh	1
Total		40

Preparatory measures on Heat wave

In 2014, severe heat-wave condition prevailed in the State in the months of April, May and June. In order to encounter such condition, the State Government undertook various preparedness/ preventive measures as follows:

- Meeting of the District Disaster Management Authority of the districts were convened to review the preparedness measures taken by different District Level Organizations / Agencies to manage the heat wave condition.
- The Control Rooms at the State level and the District level started functioning round the clock during the period of heat wave.
- Public Awareness Campaign through electronic and print media was undertaken. Civil Society Organizations and PRI members were associated with awareness campaign.
- Health & Family Welfare Department issued a set of "Do's and Don'ts" through both the print and electronic media to alert the general public. The Women & Child Development Department also launched public awareness campaign with special focus on children, pregnant and lactating mothers in order to protect them from dehydration.
- Both the Housing & Urban Development and Rural Development Departments prepared Action plan for mitigating water scarcity problems in urban and rural areas. Accordingly, water scarcity areas were identified and supply of drinking water through tankers to those areas was ensured. Repair and maintenance of tube wells was undertaken on war-footing basis.
- Water Resources Department took necessary steps to provide water through canals from reservoirs depending on requirement
- Both the Housing & Urban Development and Rural Development Departments ensured opening of "Jala Chhatras" through Urban Local Bodies/ Gram Panchayats at market places, bus stands and other congregation points. Civil Society Organisations were involved in opening of Jal Chhatras.
- F&ARD Department ensured construction/ repair of vats for roaming livestock.

- Both the School & Mass Education/ Higher Education Departments rescheduled the timing of classes and examinations of Schools & Colleges between 6.30 AM and 10.30 AM. All examinations were over by April. Provision of drinking water and first aid facilities were made at the examination centers.
- Health & Family Welfare Department ensured adequate stock and store of life saving medicine, saline, ORS in dispensaries, PHCs, CHCs and District Headquarters Hospitals for providing immediate treatment to the heat stroke patients. Beds in Hospitals were earmarked for treatment of such patients. The ESI Dispensaries were instructed to treat the general public as additional measures.
- Forest & Environment Department took all out steps to provide sufficient water to the animals in reserved/ protected forests. It also made necessary provision for supply drinking water through tanker to the human habitations facing water scarcity inside reserved forests.
- Transport Department rescheduled the timings of public transport services and restricted the plying of buses during the peak hour i.e. between 11.00 AM to 3.00 PM. Provision of portable water and ORS packets in public transport vehicles was made mandatory.
- Labour & Employment Department rescheduled the timing for engagement of labourers / workmen at worksites. Execution of work during the peak hours; i.e. from 11.00 AM to 3.30 PM was restricted. Provision for supply of drinking water, ORS packets and rest sheds was ensured at the work sites.
- Energy Department took effective steps to ensure uninterrupted power supply during the summer months.
- In nut shell, all out efforts were made to ensure zero human casualties due to heat wave. However, the cases of human casualty reported in news papers were promptly enquired into and ex-gratia assistance from Chief Minister's Relief Fund was paid immediately after ascertaining the veracity of such reports.

Hailstorm

Hailstorm & other localized disasters, which occurred during the year, were also promptly responded by the Government at appropriate levels. Due to hailstorm, 1 person died during the year. The calamity accompanied by strong wind also caused damage to private houses, crops and other infrastructure. An amount of Rs.6,86,920/ was provided out of State Disaster Response Fund to the Collectors of the affected Districts namely Bhadrak, Boudh, and Subarnapur for disbursement of ex-gratia assistance, House Building Assistance, Assistance for Clothing & Utensils, GR-in-Kind, Transport Charges, and Assistance for replacement of Milch / Draught animal & birds.

Chapter – VI

Relief Operation

During the year 2014-15, a total amount of Rs.423.907 crore was available in SDRF for expenditure. Besides this, the State has contributed an additional amount of Rs.216.17 crore out of its own resources to meet the arrear liabilities towards the damage caused due to very severe cyclonic storm Phailin & subsequent floods-2013. Out of the above, an amount of Rs.622.074 crore has been spent to meet the expenditure on different approved Natural Calamities including the arrear liability of Phailin and subsequent floods during the year 2014-15.

Funds were provided to different districts and departments as per requirement relating to Flood-2014, Hudhud-2014 and other approved calamities in time for distribution of admissible assistances to the disaster affected people and timely restoration of the public properties.

Appendix-XII

Statement showing item-wise details of expenditure incurred as per approved items and norms of SDRF/NDRF

(Rupees in Lakh)

Code No.	Items	Calamity											
		Avalanche	Cloud burst	Cyclone	Drought	Earthquake	Fire	Flood	Hailstorm	Landslide	Pest Attack	Tsunami	Cold wave/frost
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Gratuitous Relief												
(a)	Ex-gratia payment to families to deceased persons												
	(i) As per SDRF/NDRF norms	0	0	33.5	0	0	57.50	69.53	0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Total no. of beneficiaries	0	0		0	0				0	0	0	0
(b)	Ex-gratia payment for loss of a limb or eyes												
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0

	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Total no. of beneficiaries	0	0	0	0	0	0	0	0	0	0	0	0
(c)	Grievous injury requiring hospitalization												
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Total no. of beneficiaries	0	0	0	0	0	0	0	0	0	0	0	0
(d)	Relief for the old, infirm and destitute, children												
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Total no. of beneficiaries	0	0	0	0	0	0	0	0	0	0	0	0
(e)	Clothing and utensils/household goods for families whose houses have been washed away/fully damaged/severely inundated for more than a week due to a natural calamity												
	(i) As per SDRF/NDRF norms	0	0	137.781			43.741	132.732		0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Total no. of beneficiaries	0	0		0	0			0	0	0	0	0
(f)	Gratuitous relief for families in dire need of immediate sustenance after a calamity												
	(i) As per SDRF/NDRF norms	0	0	2878.453			3.929	1839.02		0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Total no. of beneficiaries	0	0		0	0			0	0	0	0	0
2	Supplementary Nutrition												
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Total no. of beneficiaries	0	0	0	0	0	0	0	0	0	0	0	0
3	Assistance to Small and Marginal Farmers												
(a)	Desilting of agriculture land												
	(i) As per SDRF/NDRF norms	0	0					118.655		0	0	0	0

	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Total eligible area (ha.)	0	0	0	0	0	0	0	0	0	0	0	0
	(iv) No. of S&M farmers												
(b)	Removal of debris on agricultural land in hilly areas												
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Total eligible area (ha.)	0	0		0	0	0	0	0	0	0	0	0
	(iv) No. of S&M farmers												
(c)	De-silting/Restoration/Repair of fish farms												
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Total ligible area (ha.)	0	0		0	0	0	0	0	0	0	0	0
	(iv) No. of S&M farmers	0	0		0	0	0	0	0	0	0	0	0
(d)	Loss of substantial portion of land caused by landslide, avalanche, change of course of rivers												
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0		0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Total ligible area (ha.)	0	0	0	0	0	0		0	0	0	0	0
	(iv) No. of S&M farmers	0	0	0	0	0	0		0	0	0	0	0
(e)	Agriculture input subsidy where crop loss was 50% and above												
	(i) As per SDRF/NDRF norms	0	0	26616.573	108.662				0	0	0	0	0
	(ii) Outside the norms	0	0	0		0				0	0	0	0
	(iii) Total ligible area (ha.)												
	(iv) No. of S&M farmers												
4	Input Subsidy to farmers other than Small & Marginal Farmers												
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0

	(ii) Outside the norms	0	0			0			0	0	0	0
	(iii) Total ligible area (ha.)											
	(iv) No. of S&M farmers											
5	Assistance to small and marginal sericulture farmers											
	(i) As per SDRF/NDRF norms	0	0		0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0			0				0	0	0
	(iii) Total area (ha.)											
	(iv) No. of S&M farmers											
6	Employment Generation											
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0			0				0	0	0
	(iii) No. of man days generated											
	(iv) Quantum of food grains distributed as part of wage component											
7	Animal Husbandry Assistance to small and marginal farmers/agricultural labourers											
(i)	Replacement of draught/milch animals or animals used for haulage											
	(i) As per SDRF/NDRF norms	0	0				0.839			0	0	0
	(ii) Outside the norms	0	0			0				0	0	0
	(iii) Total no. of beneficiaries											
(ii)	Provisions of fodder/feed in cattle camps											
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	473.615	0	0	0	0
	(ii) Outside the norms	0	0			0				0	0	0
	(iii) No. of cattle camps											
	(iv) Number of cattle kept in camps											

	(v) Qty. of fodder(qtls.) supplied in camp												
(iii)	Water supply in Cattle Camps												
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0			0			0	0	0	0	
	(iii) Total no. of Tanker load												
	(iv) No. of cattle camps and cattle kept therein												
(iv)	Additional cost of medicines and vaccine (calamity related requirements)												
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0			0			0	0	0	0	
(v)	Supply of fodder outside Cattle Camps												
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0			0			0	0	0	0	
	(iii) Total qty. of fodder transported (Qtls)												
(vi)	Movement of useful cattle to other areas												
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0			0			0	0	0	0	
	(iii) No. of cattle moved												
8	Assistance to Fishermen												
(a)	For repair/replacement of boats, nets (damaged or lost)												
	(i) As per SDRF/NDRF norms	0	0	0.00	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0			0			0	0	0	0	
(b)	Input Subsidy for fish seed farm												

	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0			0			0	0	0	0	0
	(iii) Total ligible area (ha.)												
	(iv) No. of fish farmers												
9	Assistance to artisans in handicrafts/handloom sectors by way of subsidy for repair/replacement of damaged equipments												
(a)	Traditional Crafts (Handicraft)												
(i)	For replacement of damaged tools / equipments												
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0			0			0	0	0	0	0
	(iii) No. of equipments												
	(iv) No. of beneficiaries												
(ii)	For loss of raw materials / goods in process/ finished goods												
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0			0			0	0	0	0	0
	(iii) Qty. of materials (Qtls.)												
	(iv) No. of beneficiaries												
(b)	For Handloom Weavers												
(i)	Repairs/replacement of loom equipments and accessories												
	(i) As per SDRF/NDRF norms	0	0		0	0	0	7.40	0	0	0	0	0
	(ii) Outside the norms	0	0			0			0	0	0	0	0
	(iii) No. of equipments/ accessories												
	(iv) No. of beneficiaries												
(ii)	Purchase of yam and other materials like dyes and chemicals and finished stocks												
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0			0			0	0	0	0	0

	(iii) Qty. of materials (Qtls.)												
	(iv) No. of beneficiaries												
10	Assistance for repair/ restoration of damaged houses												
(a)	Fully damaged/ destroyed Pucca houses												
	(i) As per SDRF/NDRF norms	0	0	18.54	0	0	36.523	123.53	0	0	0	0	0
	(ii) Outside the norms	0	0			0			0	0	0	0	0
	(iii) Number												
(b)	Fully damaged/ destroyed Kutcha houses												
	(i) As per SDRF/NDRF norms	0	0	22.24			72.63	10.253		0	0	0	0
	(ii) Outside the norms	0	0			0				0	0	0	0
	(iii) Number												
(c)	Severely damaged houses												
(i)	Severely damaged Pucca houses												
	(i) As per SDRF/NDRF norms	0	0	120.958	0	0	111.163	101.237	0	0	0	0	0
	(ii) Outside the norms	0	0			0				0	0	0	0
	(iii) Number												
(ii)	Severely damaged Kutcha houses												
	(i) As per SDRF/NDRF norms	0	0	31.24			36.357	660.825	0	0	0	0	0
	(ii) Outside the norms	0	0			0				0	0	0	0
	(iii) Number												
(d)	Partially damaged houses (both pucca and kutcha)												
	(i) As per SDRF/NDRF norms	0	0	23.14			37.503	1000.500	2.308	0	0	0	0
	(ii) Outside the norms	0	0			0				0	0	0	0
	(iii) Number												
(e)	Huts damaged/ destroyed												

	(i) As per SDRF/NDRF norms	0	0	3.243	0	0	4.57	30.849	0	0	0	0	0
	(ii) Outside the norms	0	0			0				0	0	0	0
	(iii) Number												
11	Provision of emergency supply of drinking water in rural areas and urban areas												
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0			0				0	0	0	0
	(iii) Total Qty. of water supplied (No. of Tankers load)												
12	(i) Provisions of medicines, disinfectants, insecticides for prevention of outbreak of epidemics	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) No. of beneficiaries												
13	(i) Medical care for cattle and poultry against epidemics as a sequel to a notified natural calamity												
	(ii) Total No. of cattle & poultry benefited												
14	(i) Evacuation of people affected/ likely to be affected	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) No. of people evacuated												
	(iii) Average cost/person												
15	Hiring of boats for carrying immediate relief and saving life												
	(i) No. of boat days	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Average hiring cost per boat/day												
16	Provisions for temporary accommodation, food, clothing, medical care etc. of people affected/ evacuated (operation of relief camps)												
	(i) As per SDRF/NDRF norms	0	0	0				3.967	0	0	0	0	0
	(ii) Outside the norms	0	0			0				0	0	0	0

	(iii) No. of persons provided shelters												
	(iv) No. of relief camps opened												
	(v) Average cost per person/per day												
17	Air dropping of essential supplies												
	(i) No. of sorties	0	0	0	0	0	0		0	0	0	0	0
	(ii) Quantity (in MTs) dropped												
18	Repair/restoration of immediate nature of the damaged infrastructure in eligible sectors												
(a)	Roads & Bridges												
	(i) As per SDRF/NDRF norms	0	0	100.000	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Cumulative length of roads repaired												
(b)	Drinking water supply												
	(i) As per SDRF/NDRF norms	0	0	311.075	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0			0				0	0	0	0
	(iii) Total no. of schemes												
(c)	Irrigation												
	(i) As per SDRF/NDRF norms	0	0	0				2553.784	0	0	0	0	0
	(ii) Outside the norms	0	0			0				0	0	0	0
	(iii) Total no. of schemes												
(d)	Power supply (only limited to immediate restoration of electricity supply in the affected areas)												
	(i) As per SDRF/NDRF norms	0	0	500.00	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0			0	0			0	0	0	0
(e)	Primary Education												
	(i) As per SDRF/NDRF norms	0	0	0.00	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0			0				0	0	0	0

	(iii) No. of primary school buildings repaired												
(f)	Primary Health Centre												
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0	0		0			0	0	0	0	0
	(iii) No. of Primary Health Centres buildings repaired												
(g)	Community assets owned by Panchayats												
	(i) As per SDRF/NDRF norms	0	0	0.00			0	0	0	0	0	0	0
	(ii) Outside the norms	0	0			0			0	0	0	0	0
	(iii) No. of community assets repaired												
19	Replacement of damaged medical equipments and lost medicines of Govt.Hospitals/ Health centres												
20	Operational cost (of POL only) for Ambulance Service, Mobile Medical Teams and Temporary Dispensaries												
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0			0			0	0	0	0	0
21	Cost of clearance of debris												
	(i) As per SDRF/NDRF norms	0	0		0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0			0			0	0	0	0	0
22	Draining off flood water in affected areas	0	0		0	0	0	0	0	0	0	0	0
23	Cost of search and rescue measures												
	(i) As per SDRF/NDRF norms	0	0	225.578	0	0	0	331.539	0	0	0	0	0
	(ii) Outside the norms	0	0			0			0	0	0	0	0
24	Disposal of dead bodies/ carcasses												

	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0			0			0	0	0	0	0
	(iii) Total no. of dead bodies disposed												
	(iv) Total no. of carcasses disposed												
25	Training to specialist multi-disciplinary groups/ teams of the State personnel drawn from different cadres/ services/ personnel involved in management of disaster in the State												
	(i) No. of training organized	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) No. of persons trained												
26	Procurement of essential Search, Rescue and Evacuation equipments including Communication equipments												
	Cost of equipments procured	0	0	389.968	0	0	0	1207.109	0	0	0	0	0
	TOTAL	0	0	31412.29	108.66	0.00	403.92	8665.39	0.00	0.00	0.00	0.00	0.00
Besides above, the following amount has been spent out of States own resources towards providing Relief necessitates and undertaking different repair/restoration works.													
	03-2245-02-106-1192-21060-Repair Restoration of PWD Roads			1342.409									
	03-2245-02-106-1192-41439 Repair Restoration of Roads under R.D. Deptt.			5724.362									
	03.2245-02-114-2802-43009-612 – Agriculture Input Subsidy			3669.511									
	03-2245-02-122-1192-21066-Irrigation & Flood Protection Works			4880.88									
	03-2245-02-193-2797-41440-918- Repair restoration of Electrical Utilities			6000.00									
	Total of States own Resources			21617.16									
	Grand Total	0	0	53029.451	108.662	0	403.916	8665.385	0	0	0	0	0

CHAPTER – VII

Status of Preparedness

As many as 10 units of Odisha Disaster Rapid Action Force (ODRAF) have been set up at Jharsuguda, Koraput, Cuttack, Chhatrapur, Balasore, Bhubaneswar, Paradip, Baripada, Bolangir and Rourkela for search and rescue operations during disasters. These units are equipped with modern machineries and equipments. Besides, as many as 282 State Fire service units have also been strengthened with various machineries and equipments for deployment in search and rescue operations. 6000 personnel are engaged in these units. As many as 139 boats, 630 saws, 639 tower lights and other emergency equipments like cutters, jacks etc. are available with the ODRAF units at 335 locations for handling emergency situations. Biju Patnaik State Police Academy is identified as State Training Institute for imparting necessary training to these Search and Rescue Teams. After meeting the requirements of its own during a disaster, the State may be able to deploy the search and rescue team to other State.

A Committee has been formed to look after regular updation of relief manual i.e. Odisha Relief Code (ORC).

State Emergency Operation Centre (SEOC) of Special Relief Commissioner and Odisha State Disaster Management Authority (OSDMA) has been organizing mock drills for various calamities to sensitize the relief machinery at different levels. Last time, mock drill on tsunami was conducted in the SEOC, DEOC, BEOC and Cyclone Shelter level. Besides, one mock drill on chemical disaster conducted in Cuttack by OSDMA in coordination with NDRF. Mock drills for various calamities

As many as 433 no. of multi-purpose cyclone shelters and flood shelters have been constructed in the State for sheltering the evacuated people during the disasters. 446 more such shelters are under construction. Shelter Management and Maintenance Committees (CSMMC) have been constituted comprising of the community members, village elders and local government officials for management and maintenance of the shelter buildings. The CSMMCs are

chaired by Tahasildars. The Secretary of the CSMMC is a community member, who actually performs all coordination activities relating to management & maintenance of the shelter building and other activities relating to CSMMC.

Disaster Management Plans have been prepared for the State, Different Departments and all the districts. Steps have been taken to review and update the DM Plans every year.

_

Appendix – X

Profile of the State

Sl. No.	Name of the District	Total Land area (Sq.Km.)	Number of Villages	Population (in '000)	Literacy Rate (in per cent)	Gross Cropped area (in '000 ha.)	Rivers	Normal Annual rainfall (mm)
1	2	3	4	5	6	7	8	9
1	Angul	6375	1871	1272	78.96	285.14	Brahmani, Mahanadi	1401.9
2	Balasore	3806	2932	2317	80.66	326.65	Subarnarekha, Budhabalang, Jalaka, Swarna	1592.0
3	Baragarh	5837	1266	1479	63.99	443.09	Mahanadi, Zira, Anga	1367.3
4	Bhadrak	2505	1312	1507	83.25	229.39	Baitarani, Salandi	1427.9
5	Bolangir	6575	1783	1648	65.50	434.08	Hati, Suktel, Rahul	1289.8
6	Boudh	3098	1187	440	72.37	130.17	Mahanadi, Tel, Salanki, Bagh, Mehurni	1623.1
7	Cuttack	3932	1952	2619	84.20	309.73	Mahanadi, Devi, Kathajodi, Birupa, Kuakhai, Sidua, Luna,	1424.3
8	Deogarh	2940	878	312	73.07	94.74	Bramani	1582.5
9	Dhenkanal	4452	1208	1193	79.41	235.13	Bramani, Ramiyal	1428.8
10	Gajapati	4325	1612	576	54.29	131.66	Bansadhara	1403.3
11	Ganjam	8206	3195	3520	71.88	617.94	Rusikulya, Badanadi, Baghua, Dhanel, Loharakhandi, Ghodahada, Kokalaba, Bahuda	1276.2
12	Jagatsinghpur	1668	1292	1137	87.13	70.97	Biluakhai, Paika, Mahanadi, Devi, Hansua.	1514.6
13	Jajpur	2899	1783	1826	80.44	258.60	Baitarani, Brahmani, Budha, Kharasrota, Birupa	1559.9
14	Jharsuguda	2081	351	579	78.36	81.87	Ib, Veden	1362.8
15	Kalahandi	7920	2253	1573	60.22	542.74	Hati, Indravati, Tel, Reta, Vamsadhara, Chandola, Utei.	1330.5

16	Kandhamal	8021	2587	732	65.12	163.34	Rahul, Salunki,	1427.9
17	Kendrapara	2644	1547	1440	85.93	254.26	Brahmani, Hansua, Kharasrota, Luna, Chitrotpala, Paika, Karandia	1556.0
18	Keonjhar	8303	2123	1803	69.00	371.67	Baitarani	1487.7
19	Khurda	2813	1534	2246	87.51	162.42	Kusabhadra, Bhargavi, Daya	1408.4
20	Koraput	8807	2042	1377	49.87	355.38	Kolab, Ultajharan, Champabati, Jhanjabati	1567.2
21	Malkangiri	5791	1055	613	49.49	186.99	Saberi, Sileru, Guru, Priya Kalam, Taptadhara	1667.6
22	Mayurbhanj	10418	3950	2514	63.98	449.50	Kala, Budhabalang	1600.6
23	Nawaranghpur	5291	891	1219	48.20	261.60	Indravati, Tel, Vaskel	1569.5
24	Nayagarh	3890	1692	962	79.17	190.29	Mahanadi, Brutanga, Kaligiri, Kusumi, Malaguni, Budha Budhari, Kuairia	1354.3
25	Nuapada	3852	668	606	58.20	269.72	Udanti, Jalka	1286.4
26	Puri	3479	1707	1698	85.37	259.04	Kadua, Dhanua, Bhadua, Ratnachira, Malaguni, Devi, Daya, Kusabhadra, Bhargavi, Prachi, Luna	1408.8
27	Rayagada	7073	2665	962	50.88	234.77	Bansadhara, Nagabali	1285.9
28	Sambalpur	6657	1313	1044	76.91	249.11	Mahanadi	1495.7
29	Subarnapur	2337	962	652	74.42	217.75	Mahanadi, Tel	1418.5
30	Sundargarh	9712	1762	2081	74.13	349.86	Brahmani, lb,	1422.4
Total (State)		155707	51373	41947	73.45	8167.60		1451.2