

Government of Orissa

ANNUAL REPORT

ON

NATURAL CALAMITIES

2007-08

**SPECIAL RELIEF COMMISSIONER
REVENUE AND DISASTER MANAGEMENT DEPARTMENT**

Introduction

The unique geo-climatic conditions of Orissa make the state vulnerable to various natural disasters like flood, cyclone, fire, hailstorm, drought and even earthquake. The Mahanadi, Baitarani, Brahmani, Subarnarekha, Rushikulya and other river systems and their tributaries cause major floods. Cyclones associated with storm surges inundate vast areas of land along coastal Orissa. A high percentage of land area comes under the seismic vulnerability zone. The tsunami on 26th December, 2004 indicates that Orissa coast is also prone to that disaster. Recurrent natural calamities have been a major stumbling block in the path of socio-economic development of the State. In the face of such daunting odds, the people of Orissa have exhibited remarkable resilience.

Geo-climatic Condition

The State experiences four main seasons, of which summer and rainy seasons are the most crucial. An extended summer followed by scanty or erratic rainfall results in drought situations. Excessive precipitation causes floods. Depressions in the Bay of Bengal mostly towards the end of the monsoon, in the month of October, may result in cyclonic storms.

The land surface of the State slopes from west to east. Its rivers originating from the hills of Orissa, Chhatisgarh and Jharkhand run eastward and flow through the State before falling into the Bay of Bengal. Some of the rivers also flow through the neighbouring states of West Bengal or Andhra Pradesh. Floods are frequent and devastating. Almost 80% of the annual rainfall is concentrated over a short monsoon period of 3 months. Recent experience shows frequent formation of depressions during the period of July to September and there were as many as 13 depressions during 2006. This combined with factors like flow of water from the western part of the State, upper catchments areas of the neighbouring states of Chhattisgarh and Jharkhand, flat coastal belts with poor drainage, high degree of siltation of rivers, lack of systematic treatment of upper catchments, breaching and spilling over

embankments causes severe floods in river basins and delta areas. Further, heavy and intensive rains in hilly areas cause flash floods, while the coastal areas are inundated by tidal surges during cyclones. Damages due to floods are caused mainly by the Mahanadi, the Brahmani and the Baitarani which have common delta, where flood water intermingle, and when in spate simultaneously, wreak considerable havoc. Rivers like Subarnarekha, Vamsadhara, Rushikulya and Budhabalang also cause floods. Orissa faced major floods during the years 2001, 2003 and 2006.

Natural Calamities

Generally, seven types of natural calamities occur in the state. The calamities are -

1. Floods / Heavy rain
2. Cyclones
3. Droughts
4. Fire accidents / Lightning
5. Boat accidents
6. Hailstorms and whirlwind
7. Heat wave

Special Features of Fire, Heat wave and Lightning

Hazards like fire and lightning frequently occur throughout the year. A good number of people succumb to death due to lightning. Average causality per year due to lightning comes to 220. Similarly, fire hazards bring miseries to the poor & vulnerable sections of the society

Natural Calamities (2007-08)

During 2007-08, the state had encountered the following types of calamities-

1. Floods
2. Cyclones (Saline inundation due to Storm Surge)
3. Heat wave
4. Fire Accidents
5. Lightning death
6. Hailstorms
7. Landslide

Month of occurrence -

Sl.	Calamities	Period / duration
1.	Flood / Heavy rain	July & August (<i>four times</i>)
2.	Cyclonic Storm Surge / Saline Inundation	1 st week of July
3.	Landslide	06.08.07 & 23.09.07
4.	Heat Wave	March to June
5.	Fire Accidents	Round the year
6.	Lightning death	Round the year
7.	Hail Storms	March to June

Rainfall-2007

The rainfall during 2007 from January to December along with deviation is given in *Annexure-I*.

Flood & Heavy Rain - 2007

District wise occurrence of floods during 2007

Sl.	Districts	Occurrence of floods from July to September 2007				No. of occurrence
		1 st phase (1 st week of July)	2 nd phase (1 st week of August)	3 rd phase (2 nd week of August)	4 th phase (last week of September)	
1.	Angul	√				1
2.	Balasore	√	√	√	√	4
3.	Bhadrak	√	√	√	√	4
4.	Ganjam	√	√			2
5.	Jajpur	√	√	√	√	4
6.	Kandhamal	√			√	2
7.	Kendrapara	√	√	√	√	4
8.	Keonjhar	√			√	2
9.	Koraput	√				1
10.	Mayurbhanj	√	√	√	√	4
11.	Nayagarh	√				1
12.	Sundergarh	√		√		2
13.	Cuttack		√		√	2
14.	Gajapati		√			1

15.	Rayagada		√			1
16.	Kalahandi		√			1
17.	Jagatsinghpur		√			1
18.	Khurda		√		√	2
19.	Bolangir		√			1
20.	Sambalpur			√	√	2

<u>Duration of flood</u>	<u>Name of the affected district</u>
1) 1 st week of July	Balasore, Bhadrak, Jajpur, Mayurbhanj, Kandhamal, Ganjam, Keonjhar, Koraput, Naygarh, Sundergarh, Angul
2) 1 st and 2 nd week of August	Balasore, Bhadrak, Jajpur, Mayurbhanj, Kendrapara, Cuttack, Gajapati, Rayagada, Kalahandi, Jagatsinghpur, Ganjam, Sambalpur, Sundergarh, Bolangir, Khurda
3) Last week of September	Balasore, Bhadrak, Jajpur, Mayurbhanj, Kendrapara, Cuttack, Kandhamal, Keonjhar, Sambalpur, Khurda

FLOODS / HEAVY RAIN

(July)

Due to continuous heavy downpour over upper & lower catchments of river Subarnarekha, Jalaka, Baitarani, Budhabalanga and their tributaries from 4th to 6th July, flood wrought havoc in five districts namely Balasore, Bhadrak, Jajpur, Keonjhar and Mayurbhanj in the first week of July. Storm surge and saline inundation affected parts of Kendrapara district during the said period.

Heavy rainfall was experienced during the last week of June due to deep depression over the Bay of Bengal affecting the districts of Koraput, Kandhamal, Nayagarh, Ganjam, Sundargarh and Angul. Event wise details are given below

Event	Period	Affected Districts
Flood	1 st week of July	Balasore, Bhadrak, Jajpur, Keonjhar, Mayurbhanj & Kendrapara (storm surge)

Heavy Rain	Last Week of June (Dt.26.6.07 to 29.6.07)	Koraput, Kandhamal, Nayagarh, Sundargarh, Angul & Ganjam
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Cause

i) Low Pressures and Depressions

Depressions in the Bay of Bengal in the first week of July caused widespread rainfall in different parts of the state and upper and lower catchment areas of different river basins leading to flood, which affected Balasore, Bhadrak, Jajpur, Kendrapara, Keonjhar and Mayurbhanj. Heavy rain in the last week of June affected Angul, Ganjam, Kandhamal, Koraput, Nayagarh, and Sundergarh districts. Date-wise formation of depressions and their impacts are indicated below.

27th June

A low pressure area formed over Northwest Bay of Bengal off Orissa Coast. The system was likely to concentrate into a depression, cross the Orissa coast on 29th and move in a West North westerly direction across Orissa, Chhatisgarh and Madhya Pradesh.

28th June

The depression over the North West and adjoining West Central Bay of Bengal remained practically stationary. It further intensified into a deep depression and lay centered at 0830 Hrs near latitude 18.5⁰ N and longitude 87.0 degree E about 200 KM South East of Puri. It was likely to intensity further and moves in a West-North Westerly direction and cross Orissa Coast between Gopalpur and Paradeep close to Puri by midnight. The deep depression over North West and adjoining West Central Bay of Bengal moved west wards and lay centred at 17.30 hours IST of 28th June '07 over the same area near latitude 19.0 degree N and longitude 86.0degree E about 100 km South of Puri. It was likely to intensify further and move in a west

north westerly direction and cross Orissa coast between Gopalpur and Paradeep, South of Puri near Chilka by 28.06.07 midnight.

4th July

The low pressure area over North East Bay of Bengal off Bangladesh coast concentrated into a depression and lay centred at 0830 Hrs IST near latitude 20.0° N and longitude 89.5° E over Bangladesh coast about 270 KM East North East of Balasore.

5th July

The depression over Bangladesh & neighbourhood moved West North Westwards and lay centered at 0830 hours IST near latitude 23.0° N and longitude 88.0° E about 50 KM north of Kolkata. The system was likely to move in West North Westerly direction. Under the influence of the depressions during June & July, IMD warned that heavy to very heavy rainfall (more than 25 CM) were likely to occur over Orissa with a possible wind speed ranging between 45-55 KM per hour along and off Orissa coast. The fishermen in coastal districts were advised not to venture into the open sea. Signal number three (LC-III) was hoisted at Gopalpur, Puri, Paradeep and Chandbali Ports.

ii) Rainfall

The average annual rainfall of the state is 1464.1mm, which includes 326.1mm expected between June 1 and July 10. But in 2007, the state received 26% excess rainfall (410.2mm) during this period. Heavy to very heavy rainfall occurred in Balasore, Bhadrak, Jajpur, Kendrapara, Keonjhar, Mayurbhanj, Angul, Ganjam, Kandhamal, Koraput, Nayagarh and Sundargarh. Rainfall in the districts on different dates is given in the table below.

Average Rainfall in mm.

District	JUNE'07			JULY'07			
	28	29	30	4	5	6	7
Angul	8.5	11.2	29.6	5.6	10.1	35.4	53.9
Balasore	28.7	58.4	16.7	40.9	30.8	91.6	44.4
Bhadrak	20.8	30.2	1.9	1.7	7.6	40.1	34.2
Ganjam	34.8	39.1	25.2	0.2	0.0	0.2	1.3
Jajpur	15.6	38.6	4.5	6.6	19.6	31.9	35.0
Kandhamal	8.9	48.8	128.7	0.2	0.3	0.6	31.7
Kendrapara	14.7	18.0	2.4	11.6	7.4	11.4	9.8
Keonjhar	10.8	26.0	15.4	8.1	13.3	125.3	106.9
Koraput	46.1	155.5	24.9	0.0	3.9	3.5	16.6
Mayurbhanj	5.1	34.0	13.7	18.9	52.4	159.1	58.9
Nayagarh	36.2	55.2	43.7	0.0	0.0	2.8	6.8
Sundargarh	0.4	1.5	6.3	6.0	15.5	71.9	134.5

Situation in River Basins

Subarnarekha Basin

Subarnarekha basin experienced heavy rainfall during the period from 4.7.07 to 7.7.07. Rainfall to the magnitude of 200 mm and more occurred at many places in the catchment area of Subarnarekha basin as mentioned below.

Station	Rainfall in MM.				
	4.7.07	5.7.07	6.7.07	7.7.07	Total
Bhograi	135.4	41.0	122.0	19.0	317.4
Fekoghat	152.6	147.0		0.8	300.4
Ghatosila	27.8	139.4	226.6	15.0	408.8
Jaleswar	120.5	75.0	104.0	38.0	337.5
Jamshedpur	77.6	143.6	241.8	32.4	495.4
Jamsolaghat	24.6		266.6	11.2	302.4
Rairangpur			210.0	36.0	246.0
Rajghat	69.0	84.4	201.4	35.4	390.7
Ranchi	66.3	21.9	70.2	46.9	205.3

Such heavy rain within a short period caused a deluge in Subarnarekha and the flood water touched 12.38 m against the warning level of 9.45 m and danger level of 10.36 m at Rajghat and remained steady above the warning level for about 54 hours from 6.7.07 to 9.7.07. The flood inundated parts of Balasore and Mayurbhanj districts. The problem was aggravated due to inflow of water from adjoining Midnapur district of West Bengal.

Jalaka Basin

Jalaka a small rivulet- experienced heavy flood due to the uninterrupted rainfall for consecutive 4 days from 4.7.07 to 7.7.07 and continued to flow above danger level of 5.50 m with water level reaching the peak of 7.40 m on 7.7.07. The flood inundated vast areas of Basta Block in Balasore district with propelling effect.

Budhabalanga Basin

Due to heavy precipitation from 4.7.07 to 7.7.07, the river Budhabalanga experienced a flood that topped the warning level of 7.21m at NH5, Govindpur and touched 7.74 m and remained above warning level for more than 36 hours. It affected parts of Balasore and Mayurbhanj districts. The rainfall experienced over Budhabalanga basin during the same period is mentioned below:

Station	Rainfall in MM.				
	4.7.07	5.7.07	6.7.07	7.7.07	Total
Balasore	28.6	37.1	97.9	51.6	215.2
Balimundali	20.2	57.4	105.8	39.2	222.6
Bangiriposi	17.2	55.0	142.8	9.2	224.2
Baripada	26.8	135.6	189.0	28.4	379.8
Bonth		2.0	52.0	38.0	92.0
Chandanpur	9.8	49.8	155.4	8.4	223.4
Jaipur	18.2	46.6	124.4	43.0	232.2

NH5 G.pur	23.0	38.4	108.8	44.6	214.8
Nilagiri	19.0	26.0	76.0	35.0	156.0
Soro	13.0	16.0	71.0	49.0	149.0
Udala		34.0	146.0		180.0

Baitarani Basin

Due to effect of deep depression, heavy rainfall was experienced over upper and lower catchments of Baitarani from 4th July to 7th July. As a result, the river experienced a severe flood that topped the danger level 17.83 m at Akhuapada and touched 19.96m and remained above danger level for more than 48 hours. Parts of Bhadrak, Jajpur and Keonjhar were most affected. The rainfall recorded in the Baitarani river basin is mentioned below:

Station	Rainfall in MM.			
	5.7.07	6.7.07	7.7.07	Total
Akhuapada	28.8	42.6	31.8	103.2
Anandpur	17.4	86.8	61.4	165.6
Champua	13.2	153.8	88.6	255.6
Chandbali	8.6	25.5	11.4	45.5
Ghatagaon	5.0	165.0	65.0	235.0
Jajpur	14.0	21.0	19.0	54.0
Jhumpura	11.0	206.2	161.8	379.0
Jashipur	-	208.2	-	208.2
Karanjia	12.0	99.0	126.0	237.0
Keonjhar	7.4	175.2	84.4	267.0
Rajkanika	6.0	19.0	15.0	40.0
Swampatna	5.4	150.7	107.8	263.9
Thakurmunda	16.4	163.0	72.2	251.6

Comparative position of water levels in different rivers during the period from 5th July to 8th July 2007 (in metres) is indicated below.

River	Place	Warning level	Danger level	Water Level in July			
				5 th	6 th	7 th	8 th
Subarnarekha	Jamsolaghat	48.32	49.16	45.58	53.90	53.30	53.30
	Rajghat	9.45	10.36	7.90	12.22	12.38	11.98
Budhabalanga	Baripada	29.70	30.92	23.42	28.72	26.98	23.96
	NH5 Govindpur	7.21	8.13	3.74	5.50	7.74	6.90
Baitarani	Anandpur	37.45	38.36	33.73	39.38	39.80	37.58
	Akhuapada		17.83	15.60	17.60	19.96	19.04
Jalaka	Balasore		5.5	6.14	6.75	7.40	6.75

Impact

The flood of July 2007 is a calamity of severe nature. The water level recorded in the Subarnarekha exceeded all the previous records. The floods caused extensive damage to natural resources, physical infrastructure and livelihood. It had adverse impact on the social fabric of the flood affected areas. The resilience of the affected people has been put to test and it will take years to recover from the losses sustained and trauma undergone.

Extent of Damages

Floods and heavy rains during last week of June and 1st week of July caused extensive damages in twelve districts. Abstract of extent of damages are indicated below:

1.	No. of Districts affected	Flood - 6 Heavy rain - 6 Total - 12
2.	Names of the affected Districts	Flood - Balasore, Bhadrak, Jajpur, Kendrapara, Keonjhar, Mayurbhanj Heavy rain - Angul, Ganjam, Kandhamal, Koraput, Nayagarh, Sundergarh

3.	Blocks affected	Flood - 25 Heavy rain - 21 Total - 46
4.	GPs affected	Flood - 243 Heavy rain - 61 Total - 304
5.	Villages affected	Flood - 1,745 Heavy rain - 120 Total - 1,865
6.	ULBs affected	Flood - 5
7.	Population affected	Flood - 13.32 lakh
8.	Human lives lost	32
9.	Livestock affected	7.16 lakh
10.	Cattle / Livestock lost	19,495
11.	Crop Area affected	1.21 lakh hectare
12.	Crop Area Sand cast (in hect.)	556
13.	Houses damaged	Fully - 2,611, Severely - 6,742, Partially - 18,457 Total - 27,810

Human Casualty

32 persons lost their lives due to wall collapse & swept away due to flood rain in July. The district wise break up is as follows.

Sl.	Districts	Human Casualty
1.	Balasore	20
2.	Bhadrak	06
3.	Jajpur	01
4.	Keonjhar	01
5.	Angul	02
6.	Koraput	01
7.	Nayagarh	01
Total		32

Loss of livestock

As many as 19,495 livestock perished in Balasore district due to flood.

Sl.	Type	Number
1.	Big animals	105
2.	Small animals	278
3.	Poultry	19,112
Total		19,495

House Damage

About 27,810 houses had been damaged. The district wise house damages are given below:

Sl.	Districts	Fully	Severely	Marginally	Total
1.	Balasore	2,010	4,711	9,315	16,036
2.	Bhadrak	122	789	4,090	5,001
3.	Jajpur	43	132	608	783
4.	Keonjhar	384	892	4,127	5,403
5.	Mayurbhanj	52	218	317	587
Total		2,611	6,742	18,457	27,810

Crop Damage

About 1,20,761 hectares of Kharif crop had been damaged due to flood and storm surge in six districts as mentioned below during 1st week of July.

(Area in hectare)

Sl.	Districts	Crop Area Affected
1.	Balasore	55,457
2.	Bhadrak	24,430
3.	Jajpur	2,512
4.	Kendrapara	8,407
5.	Keonjhar	8,955
6.	Mayurbhanj	21,000
Total		1,20,761

Out of the crop area affected, 57,989.64 hectares of crop area sustained crop loss of more than 50%. Agricultural land having 556 hectares had been sand cast.

Population affected

The flood in Subarnarekha, Baitarani, Budhabalanga and Jalaka rivers caused havoc and brought miseries to the people of Balasore, Bhadrak, Keonjhar and Mayurbhanj districts. About 13.32 lakh people were affected in six districts as mentioned below. Inhabitants were marooned for days together.

Sl.	Districts	Population Affected
1.	Balasore	8,44,211
2.	Bhadrak	2,45,459
3.	Jajpur	1,06,756
4.	Kendrapara	47,880
5.	Keonjhar	68,215
6.	Mayurbhanj	20,000
Total		13,32,521

Out of 1,745 villages affected about 1,004 villages were marooned for days together and miseries of the marooned people multiplied. Communication to the affected area was cut off. It was not possible to provide emergent relief to the marooned people by boat. The State Govt. decided to provide relief in the shape of dry food like chuda & gur and other immediate necessities like candles, biscuits, match box etc by air-dropping from 8th to 10th July in Balasore district.

Loss of livelihood

Due to the flood, 285 traditional craftsmen of Balasore district have been affected causing damage to their equipments and raw materials. 347 handloom weavers of the district have been affected during this flood. Similarly, 821 sericulture farmers have been affected.

Damage to Nets and Boats of Fishermen

12 country boats and 74 fishing nets have been fully damaged due to flood and deep depression during 1st week of July.

Damage to infrastructure

Road Sector

a) PWD Roads:

204 PWD roads (length 1321.63 kms) had been damaged during this flood. 106 breaches had been occurred in these roads. Seven (07) culverts had been washed away and 363 culverts had been damaged due to flood and heavy rain. District-wise details are given below.

Sl. No	District	Roads damaged	Breaches	Length of road damaged in Km	Culverts damaged	Culverts washed away
1	BHADRAK	22	04	194.29	41	-
2	BALASORE	35	24	214.69	41	02
3	KEONJHAR	23	21	254.69	54	03
4	MAYURBHANJ	34	10	101.23	47	02
5	JAJPUR	14	13	52.53	-	-
6	GANJAM	23	01	118.7	3	-
7	PURI	01	-	0.48	-	-
8	KORAPUT	13	33	88.50	92	-
9	SUNDARGARH	08	-	47.00	4	-
10	NAYAGARH	13	-	79.20	39.00	-
11	KENDRAPARA	18	-	170.32	42	-
	Total	204	106	1321.63	363	07

b) Rural Roads

572 rural roads having 2,015 kms length had been badly damaged due to flood and heavy rain during first week of June and first week of July. 858 breaches had been occurred in such damaged roads. 24 culverts of rural roads had been washed away and 774 culverts had been damaged extensively. The detailed damage position is given below.

Sl. No.	Name of the District	Roads damaged	Breaches occurred	Length of Road damaged (In Kms)	Culverts damaged	Culverts washed away
1	Balasore	186	489	636.760	278	10
2	Bhadrak	30	89	112.900	44	-
3	Jajpur	51	86	133.870	33	04
4	Keonjhar	97	59	342.630	187	05
5	Mayurbhanj	111	53	535.420	132	05
6	Kendrapara	08	01	15.000	01	-

7	Angul	05	01	10.000	01	-
8	Ganjam	41	27	90.000	40	-
9	Koraput	41	51	138.643	58	-
10	Kandhamal	02	02	0.000	-	-
Total		572	858	2015	774	24

c) Panchayat Roads

4361 Panchayat roads having length of 5066.67 kms had been badly damaged due to flood and heavy rain during first week of June and first week of July. 251 culverts on these damaged roads had been badly affected. The detailed damage position is given below.

Sl. No.	Name of the District	Roads damaged	Length of Road damaged (In Kms)	Culverts damaged
1	Balasore	2,821	3039.100	-
2	Bhadrak	343	406.550	92
3	Jajpur	230	222.530	-
4	Keonjhar	772	1206.360	159
5	Mayurbhanj	195	192.130	-
Total		4,361	5,066.67	251

d) Urban Roads

Due to heavy flood and heavy rain during 1st week of July, the roads of urban areas had been extensively damaged. 157.34 kms of urban roads and 22 culverts had been damaged. Urban drains of length 10.83 kms had also been damaged. The district-wise details are given below.

Sl. No	Name of the District	Length of Road damaged (In Km)	Culverts damaged	Length of drain damaged (In Km)
1	Balasore	27.47	-	-
2	Jajpur	28.36	-	4.06
3	Keonjhar	49.52	05	6.77
4	Mayurbhanj	51.99	17	-
Total		157.34	22	10.83

Drinking Water Supply Works

a) Rural Water Supply

Six piped water supply systems and 4,708 tube wells had been damaged due to continuous inundation of flood water. The district-wise damage position is given below.

Sl. No.	Districts	Tube wells damaged	Platforms damaged	PWS damaged	Stand posts damaged
1.	Balasore	1,559	260	2	20
2.	Bhadrak	846	130	-	-
3.	Mayurbhanj	132	30	-	-
4.	Keonjhar	1,378	90	2	-
5.	Jajpur	793	-	1	10
6.	Sundargarh	-	-	1	10
Total		4,708	510	6	60

d) Urban Water Supply

511 tube wells and 28 pump houses were damaged in urban areas as shown below.

Sl. No.	Districts	No. of Tube wells damaged	No. of Pump house damaged
1.	Balasore	150	04
2.	Bhadrak	40	05
3.	Mayurbhanj	120	04
4.	Keonjhar	35	05
5.	Jajpur	166	10
Total		511	28

Irrigation

a) Minor Irrigation

1,121 breaches in main canals and 3,713 breaches in branch canal of different minor irrigation projects had been occurred due to high flood in Baitarani, Subarnarekha and Budhabalanga rivers.

Sl. No.	Nature of damage	No. of breaches / Structure	Total length of breaches in mtr.
1	Main Canal	1,121	3,119
2	Branch Canal	3,713	10,429
3	Masonry Structure	1,374	-
Total		6,208	13,548

b) River and Canal Embankment

Due to heavy flood in Subarnarekha, Baitarani, Budhabalanga and Jalaka, 182 breaches of length of 13.36 kms occurred in river and saline embankment. 272 breaches in canal embankments and 385 breaches in river embankments occurred. The district-wise breach position is given below.

Sl. No.	District	River Embankment		Canals		River Embankment		Canals	
		Breaches		Breaches		Partial Damages		Partial damages	
		No.	Length in Km.	No.	Length in Km.	No.	Length in Km.	No.	Length in Km.
1	Balasore	117	9.72	29	1.00	89	162.57	01	0.03
2	Bhadrak	34	1.45	70	2.03	85	47.99	55	35.87
3	Jajpur	11	1.45	-	-	180	108.62	16	16.68
4	Keonjhar	03	0.18	132	1.39	16	38.06	64	14.59
5	Mayurbhanj	17	0.56	41	0.69	15	0.75	06	0.04
Total		182	13.36	272	5.11	385	357.98	142	67.21

Scouring also occurred in river embankments. The district wise position is given below

Sl. No.	District	Length of scouring needs stone pitching in Km.
1	Balasore	12.58
2	Bhadrak	15.0
Total		27.58

c) Drainage System

Due to heavy flood and rain, drainage clearance in the rivers had been badly affected. 725.678 km of drainage system in rivers had been affected by debris and vegetative material. District details are given below:

Sl.No.	District	No. of Works	Deposition of debris & vegetative materials etc. in drainage system(length in K.m)
1	Balasore	191	243.818
2	Bhadrak	141	395.98
3	Jajpur	26	85.88
Total		358	725.678

Primary School Building

335 primary school buildings had been damaged. The district-wise position is given below.

Sl. No.	Districts	Primary Schools damaged
1.	Balasore	146
2.	Bhadrak	43
3.	Mayurbhanj	03
4.	Keonjhar	106
5.	Jajpur	37
Total		335

Primary Health Center

Nine PHC buildings of Balasore and Keonjhar districts were damaged due to flood.

Sl. No.	Districts	PHC Buildings damaged
1.	Balasore	05
2.	Keonjhar	04
Total		09

Community Assets

300 Panchayat buildings and 27 community centers in rural areas were damaged by flood.

Sl. No.	Districts	Panchyat Ghars damaged
1.	Balasore	271
2.	Bhadrak	22
3.	Jajpur	07
Total		300

Sl. No.	Districts	Community Halls damaged
1.	Mayurbhanj	08
2.	Keonjhar	16
3.	Jajpur	02
4.	Angul	01
Total		27

LOSS ASSESMENT

The total loss to various sectors due to floods/ heavy rain in July was Rs 306.70 crore. The department-wise loss assessment is given below in table.

Sl.	Department	Amount (Rs. in lakh)
1.	Special Relief Commissioner	1548.685
2.	Women and Child Development	22.72
3.	Agriculture	1751.01
4.	Fishery and Animal Resources Development	566.39
5.	Handloom & Textile	36.55
6.	Housing and Urban Development	1640.39
7.	Health and Family Welfare	147.65
8.	Rural Development	3967.75
9.	Panchayati Raj	9665.14
10.	Water Resources	8529.64
11.	Works	2045.71
12.	School and Mass Education	389.58
13.	Energy	358.44
Total		30669.655

FLOOD MANAGEMENT

Response

Meetings of District Level Natural Calamity Committees were held twice in all the Districts under the chairmanship of the Collectors to review flood preparedness measures. The meeting of the State Level Natural Calamity Committee was held on 31st May, 2007 under the chairmanship of the Hon'ble Chief Minister to finalize response plans of Departments at the State level.

Warnings issued by the IMD were communicated and the concerned Districts Administrations were put on alert. Adequate advanced preparatory measures such as warning communication to vulnerable areas, fishermen, meetings to review preparedness, activation of response plans of different Departments along with evacuation of people & livestock, wherever required, were taken up.

Specific preparedness review meetings were conducted in the Districts of Balasore, Bhadrak, Jagatsinghpur, Kendrapara and Jajpur on 3rd July, 2007. Officers were deputed from Orissa State Disaster Mitigation Authority (OSDMA) to such meetings to assist the Districts administrations of the above districts to review the contingency plans of different line departments and review compliance of the decisions taken in the meetings of the District Level Natural Calamity Committees. Relief materials were pre-positioned in vulnerable areas likely to be cut-off. Senior District level officers were kept in charge of different Blocks and they were stationed in their respective areas prior to occurrence of floods to streamline warning, evacuation and relief activities.

Rescue and Evacuation

Flood warnings were transmitted to the field areas. People from low lying areas were shifted to safer places. All the five units of Orissa Rapid Action Forces (ODRAF) consisting of 55 power boats were deployed in Balasore, Bhadrak and Jajpur districts for rescue operation. 376 boats were engaged for evacuation of people. 70,290 persons were evacuated to safer places. The district wise details are mentioned below:

Sl.	District	People evacuated	Boats
1.	Balasore	51,343	282
2.	Bhadrak	2,785	35
3.	Jajpur	1,523	40
4.	Keonjhar	8,462	10
5.	Mayurbhanj	6,177	09
Total		70,290	376

Free kitchen

Evacuated persons were provided with adequate quantities of dry food and cooked food through free kitchen centres. 242 free kitchen centres were opened and these covered 1,28,736 beneficiaries. District wise details are given below:

Sl.	District	Free kitchen centres opened	Beneficiaries covered
1.	Balasore	203	1,14,555
2.	Bhadrak	07	2,785
3.	Keonjhar	21	8,396
4.	Mayurbhanj	11	3,000
Total		242	1,28,736

Emergent Relief

34,686.77 quintals of Rice, 2,876.11 quintals of Chuda, and 232.93 quintals of Gur were provided to the marooned people of different districts as shown below.

(Quantity in quintals)

Sl.	District	Rice	Chuda	Gur
1.	Balasore	26,426.22	2,173.86	152.97
2.	Bhadrak	6,151.00	380.00	21.00
3.	Jajpur	1,150.55	158.05	31.71

4.	Keonjhar	920.00	65.20	11.75
5.	Mayurbhanj	39.00	99.00	15.50
Total		34,686.77	2,876.11	232.93

Air Dropping

The water level in the river Subarnarekha did not recede and continued to flow over the warning level for 54 hours. Road communication was cut off and water routes could not be used for transportation of relief materials due to high current. In view of the above facts, it was decided to take up air dropping with the help of Indian Air Force. 7,560 packets of dry food (570 quintals) along with candles, matchbox and biscuits were air dropped in worst affected blocks i.e. Baliapal, Basta, Bhograi & Sadar with the help of two Mi 17 Helicopters from 8th to 10th July, under the direct supervision of the Special Relief Commissioner, Orissa.

Temporary Shelter Materials

9,353 families were provided with polythene sheets for temporary accommodation as their houses were fully or severely damaged.

Health & Sanitation

In order to prevent outbreak of epidemics, 59 medical teams were deployed in Balasore, Bhadrak, Jajpur, Keonjhar and Mayurbhanj districts. 180 Medical Relief Centres were opened. 4,58,248 ORS packets and 44,93,900 Halogen tablets were distributed. District wise details are given below.

SI	District	Medical Teams Deployed	Medical Centers opened.	ORS	Halogen Tablets
1.	Balasore	24	28	2,93,512	21,93,656
2.	Bhadrak	13	21	89,213	12,35,073

3.	Jajpur	03	75	32,353	5,20,768
4.	Keonjhar	09	25	15,302	2,52,063
5.	Mayurbhanj	10	31	27,868	2,92,340
Total		59	180	4,58,248	44,93,900

Drinking Water

Arrangements were made for supply of safe drinking water in the flood affected areas. 14 water tankers were deployed in Balasore and Keonjhar districts. 2,09,700 water pouches were distributed. 4,708 Tube wells and 758 open wells had been disinfected. District-wise details are mentioned below.

Sl	District	Tankers Deployed	Water Pouches Distributed	Open Wells Disinfected	Tube Wells Disinfected
1	Balasore	08	56,000	110	1,559
2	Bhadrak	-	50,000	367	846
3	Jajpur	-	90,800	-	793
4	Keonjhar	06	12,900	281	1,378
5	Mayurbhanj	-	-	-	132
Total		14	2,09,700	758	4,708

Animal Care

Affected animals were shifted to safer places. 71 cattle camps were opened. 53 veterinary teams were deployed in the flood affected areas. 7.16 lakh livestock were treated and vaccinated. 250 MT of cattle feed were provided to the affected cattle.

VISIT OF CENTRL TEAM

An Inter-Ministerial Central Team headed by Shri Dinesh Singh, Joint Secretary, Ministry of Home Affairs, Government of India, visited the state during 24th July to 26th July to assess the flood situation. They were apprised about the severity of damages due to flood / heavy rain.

Assistance sought from Govt. of India

The State Govt. had submitted a Memorandum on flood / heavyrain to Govt. of India vide letter No.28870/ R&DM Dt.24.07.2007 seeking the following assistance.

- i) Financial Assistance of Rs.306.70 crore out of NCCF for relief & immediate restoration measures.
- ii) Special allocation of 27,810 IAY house for flood victims of BPL category, whose houses had been damaged.
- iii) Restoration of the CRF allocation for 2007-08 to Rs319.38 crore, after adjusting the Central share of Rs 58.66 crore advanced during 2006-07 as a grant.

Assistance received from Govt. of India

The High Level Committee had approved the following assistance on the basis of the recommendation of Inter-Ministerial Committee and report of Central Team.

1. Rs. 59.33 crore from NCCF subject to adjustment of 75% of the balance available in the CRF account of the State for the instant calamity. Based on the expenditure details received from the State Govt., the assistance required to be released from the NCCF works out to nil.
2. Rs.0.719 crore from Special Component of ARWSP.

FLOODS / HEAVY RAIN

(August & September)

Cause

All the coastal districts had received heavy to very heavy rainfall due to deep depression over North West Bay of Bengal, which was centered on 6th August'07 close to Cuttack.

All catchments of major rivers of Southern and Northern Orissa received heavy rainfall from 5th to 7th August'07 & 23rd September to 26th September. As a result, floods came in rivers Vansadhara, Baitarani, Subarnarekha, Badanadi,

and Budhabalanaga. Similarly, the entire North Orissa was completely submerged during the current floods.

i) Low Pressures and Depressions

- i) On 05.08.07 at 1220 Hrs. IMD had informed that the depression over North West Bay of Bengal off Orissa West Bengal Coast remained practically stationary and lay centered at 8.30 Hrs. over North West Bay of Bengal near latitude 20.0 degree North and longitude 88.5 degree East about 230 K.M South East of Balasore. It was also informed that the system was likely to intensify further, move in a West North Westerly direction and cross North Orissa West Bengal coast between Paradeep and Digha. Heavy to very heavy falls were likely to occur (more than 25 cm) at isolated places over Orissa during next 48 hours.
- ii) On 06.08.07 at 11.30 Hrs the deep depression over North West Bay of Bengal moved West North West wards and crossed Orissa coast to the North of Paradeep between 0630 Hrs and 0730 hours. It lay centered at 0830 hours over coastal Orissa close to Cuttack.
- iii) On 10.08.07 at 1230 hours a low-pressure area over North Bay of Bengal and adjoining Gangetic West Bengal and Bangladesh lay over Gangetic West Bengal, North Orissa and adjoining North West Bay of Bengal. Under the influence of depression, heavy rainfall occurred over catchments of Mahanadi, Baitarani, Brahmani, Subarnarekha, and Vansadhara.
- iv) As per IMD the depression over North West Bay of Bengal has crossed Orissa coast near Puri around 18.30 hours of 22.09.07. Heavy to very heavy rainfall has been received all over the coastal districts.

ii) Rainfall (Average rainfall in mm.)

August

Sl.	Name of the District	5.8.2007	6.8.2007	7.8.2007	8.8.2007
1.	Bolangir	1.1	68.6	56.0	1.8
2.	Cuttack	142.3	123.8	20.0	1.1
3.	Gajapati	1.5	75.0	83.5	4.9
4.	Ganjam	6.3	85.2	115.9	1.5
5.	Jagatsinghpur	176.9	161.0	20.1	0.0
6.	Jajpur	33.1	69.2	24.5	0.0
7.	Kalahandi	10.4	114.8	193.1	1.7
8.	Kandhamal	1.3	106.4	119.1	3.8
9.	Kendrapara	86.8	112.3	19.6	0.0
10.	Khordha	45.1	96.3	49.8	1.5
11.	Koraput	14.8	45.4	68.9	9.8
12.	Malkangiri	26.6	66.1	38.6	10.4
13.	Nawarangpur	4.4	65.6	237.1	3.0
14.	Nayagarh	2.5	60.1	92.5	5.0
15.	Nuapara	1.0	40.8	88.1	27.1
16.	Puri	80.8	161.5	30.0	0.0
17.	Rayagarh	0.5	83.8	148.7	12.7
18.	Sonepur	0.0	61.5	17.0	0.7

September

Sl.	Name of the District	23.9.2007	24.9.2007	25.9.2007	26.9.2007
1.	Angul	99.5	83.9	7.6	11.7
2.	Balasore	268.0	187.1	132.3	19.4
3.	Bhadrak	87.9	42.2	1.4	3.1
4.	Boudh	123.3	114.7	3.0	0.0
5.	Cuttack	109.2	25.8	1.3	7.4
6.	Dhenkanal	102.9	51.8	2.0	2.8
7.	Jagatsinghpur	74.1	14.8	8.1	1.1
8.	Jajpur	117.5	28.5	0.5	33.2
9.	Kandhamal	128.6	61.4	4.4	1.3

10.	Kendrapara	98.5	29.1	3.3	1.1
11.	Keonjhar	108.1	49.6	23.5	7.7
12.	Mayurbhanj	126.0	61.4	18.8	5.6
13.	Sambalpur	48.7	124.6	18.2	7.6

Rivers (water level)

Due to heavy rainfall during 1st week of August'07 and last week of September'07, the water level had risen in the rivers Baitarani, Vansadhara, Rusikulya, Subarnarekha, Budhabalanga, Salandi for which floods occurred in these rivers affecting the downstream areas of the districts. The water level of rivers is given below:

Sl.	Name of the Rivers	Place	Danger level (in mtr)	Warning level (in mtr)	Water levels (in mtr.)					
					7.8.07	8.8.07	13.8.07	14.8.07	25.9.07	26.9.07
1.	Vansadhara	Gunpur	84.00	83.00	87.20	82.79	82.15	81.94	82.09	81.79
		Kashinagar	54.60	53.60	56.84	54.36	54.07	53.91	54.10	53.91
2.	Baitarani	Akhuapada	17.83		17.84	17.73	19.28	19.28	19.20	19.20
		Anandpur	38.36	37.44	37.31	36.62	38.00	38.90	37.91	37.67
3.	Subarnarekha	Rajghat	10.36	9.45	7.58	8.05	8.93	11.30	11.52	11.45
4.	Budhabalanaga	NH5 Govindpur	8.13	7.21	6.02	6.34	6.96	7.46	8.04	7.36
5.	Brahmani	Jenapur	23.00	22.00	19.48	19.16	19.46	20.16	22.08	22.08
6.	Rusikulya	Purusa-tampur	16.83	15.83	17.35	16.20	14.43	14.26	15.62	15.03

IMPACT

Extent of Damages

Heavy rains / floods during 1st & 2nd week of August and last week of September caused extensive damages; following table gives a brief account.

		August (2 nd / 3 rd phase)	September (4 th phase)
1.	No. of districts Affected :	15	10
2.	No. of Blocks Affected :	100	66

3.	No. of GPs Affected	:	952	969
4.	No. of Villages Affected	:	4865	5677
5.	No. of ULBs Affected	:	20	12
6.	Population Affected	:	22.47 lakh	42.35lakh
7.	No. of Human live lost	:	20	39
8.	Crop Area Affected	:	1.97 lakh hect. (Both August & September)	
9.	No. of Houses damaged	:	76902.(Both August & September)	

Districtwise Damages[2nd & 3rd Phase]

Sl. No.	District	Blocks	GPs	Villages	ULBs	Population	Human Casualty
1	Balasore	5	115	1249		933390	4
2	Cuttack	9	59	224	2	358473	
3	Rayagada	11	14	48	1	8000	2
4	Kalahandi	13	203	467		51155	1
5	Kendrapara	9	170	681	2	213306	
6	Jagatsinghpur	8	41	133		194082	
7	Khorda						1
8	Jajpur	8	77	260	2	285214	2
9	Ganjam	22	215	1535	12	11000	
10	Bolangir	5		49		18000	
11	Mayurbhanj	4	15	50	1	20000	9
12	Bhadrak	4	44	184		230545	1
13	Gajapati	1	4	5	1	5000	
14	Sambalpur	2	2		1	1500	
15	Sundargarh	1	2	7	1	8000	
Total		102	961	4892	24	2337665	20

Districtwise Damages[4th Phase]

Sl. No.	District	Blocks	GPs	Villages	ULBs	Population	Human Casualty
1	Balasore	12	265	2383	4	1723623	12
2	Bhadrak	7	149	722	2	717080	7
3	Cuttack	7	42	395	2	191565	3
4	Jajpur	9	107	379	1	407924	
5	Kandhamal	12	103	315		100000	3
6	Keonjhar	1	1	1		16	3
7	Kendrapara	9	241	1237	2	970030	5
8	Khurda	1	1	1			2
9	Mayurbhanj	7	59	217	1	119889	4
10	Sambalpur	1	1	27		5500	
Total		66	969	5677	12	4235627	39

Human Casualty

59 Persons lost their lives due to wall collapse, drowning etc. in the flood affected districts. Following table shows the district wise details.

Sl.	District	Human Casualty		
		August	September	Total
1.	Balasore	4	12	16
2.	Bhadrak	1	7	8
3.	Cuttack	-	3	3
4.	Kandhamal	-	3	3
5.	Keonjhar	-	3	3
6.	Khurda	1	2	3
7.	Mayurbhanj	9	4	13
8.	Rayagada	2	-	2
9.	Kalahandi	2	-	2
10.	Jajpur	1	-	1
11.	Kendrapara	-	5	5
Total		20	39	59

Loss of livestock

2179 livestock perished in Balasore district due to flood.

Sl.	Type	Number
1.	Big animals	59
2.	Small animals	220
3.	Poultry	1900
Total		2179

House Damage

About 76902 houses had been damaged. The district wise house damages are given below:

Sl.	Districts	Fully	Severely	Marginally	Hut	Total
1.	Balasore	7501	7739	17903	1700	34843
2.	Bhadrak	187	1874	5609		7670
3.	Mayurbhanj	2561	5017	8753	412	16743
4.	Kendrapara	173	380	1661		2214
5.	Kandhamal	9	44	830		883
6.	Sambalpur	74	25	379		478
7.	Cuttack	229	1220	2700	200	4349
8.	Kalahandi	7	122	1054	22	1205
9.	Jagatsinghpur	-	100	1905		2005
10	Ganjam	1	9	178		188
11	Sundergarh	74	16	1006		1096
12	Rayagada	262	3359	1557	50	5228
Total		11078	19905	43535	2384	76902

Crop Damage

About 197632 hectares of Kharif crop had been damaged due to flood and storm surge in six districts as mentioned below during August & September. Besides this 1065 hect. of perennial crops had been damaged.

Sl.	Districts	Crop Area Damaged [in Hect.]		
		Of SMF	Of Others	Perennial crops of SMF
1.	Balasore	69690	2356	498
2.	Bhadrak	44035	302	167
3.	Cuttack	5798	252	

4.	J.S.Pur	12904	657	
5.	Jajpur	18856	174	161
6.	K.pada	20710	0	153
7.	Phulbani	409	5	
8.	Mayurbhanj	13120	0	86
9.	Kalahandi	1833	366	
10.	Ganjam	4360	322	
11.	Gajapati	402	42	
12.	Rayagada	1039	0	
Total		193156	4476	1065

Sand-cast

Agricultural land of area 363.22 hectares had been sand cast. The district wise sand cast position is given below.

Balasore	-	65.00 hect
Sundargarh	-	9.00 hect
Mayurbhanj	-	19.42 hect
Ganjam	-	88.00 hect
Sambalpur	-	181.8 hect

Population affected

The floods in Subarnarekha, Baitarani, Budhabalanga and Jalaka rivers caused havoc and brought miseries to the people of Balasore, Bhadrak, Jajpur, Keonjhar and Mayurbhanj districts during August & September. About 22.47lakh and 42.35 lakh people were affected in districts during August and September respectively as mentioned below. Inhabitants were marooned for days together.

Sl.	Districts	Population Affected	
		August	September
1.	Balasore	933398	1723623
2.	Bhadrak	230545	717080
3.	Jajpur	240035	407924
4.	Mayurbhanj	20000	119889
5.	Kendrapara	168291	970030
6.	Cuttack	358473	191565
7.	Gajapati	5000	
8.	Rayagada	8000	
9.	Kalahandi	51155	
10.	Jagatsinghpur	194082	
11.	Ganjam	11000	

12.	Bolangir	18000	
13.	Sambalpur	1500	5500
14.	Sundergarh	8000	
15.	Kandhamal		100000
Total		2247479	4235611

Loss of livelihood

Due to flood, 307 traditional craftsmen of Balasore district were affected due to damage caused to their equipments and raw materials. 1138 handloom weavers of the districts namely, Balasore, Bhadrak, Mayurbhanj, Jajpur, Kendrapara had been affected during this flood. Similarly, 630 sericulture farmers had been affected.

Damage to Nets and Boats of Fishermen

150 country boats and 183 fishing nets had been fully damaged due to flood and deep depression during 1st week of August and last week of September.

Damages to Public Utilities

Road Sector

a) PWD Roads

523 PWD roads (length 3695.93 kms) were damaged during this flood. 196 breaches had been occurred in the damaged roads. 18 culverts had been washed away and 927 culverts had been damaged due to flood and heavy rain. District-wise details are given below.

Sl.	Name of the District	No of roads damaged	No of Breaches	Length of road damaged in Km.	No of Culverts damaged	No. of Culverts washed away
1	Balasore	38	33	219.09	12	2
2	Bhadrak	32	38	410.20	69	0
3	Cuttack	72	4	269.48	80	0
4	Jagatsinghpur	33	7	234.58	30	3
5	Jajpur	37	1	152.13	9	0
6	Kendrapara	30	7	303.27	11	1
7	Keonjhar	48	10	533.72	130	0

8	Koraput	8	21	18.95	30	0
9	Mayurbhanj	66	7	306.39	100	6
10	Nayagarh	19	0	104.15	20	0
11	Sambalpur	6	0	101.20	2	4
12	Sundergarh	21	0	61.75	29	0
13	Ganjam	72	48	346.45	213	1
14	Raygada	15	1	288.87	42	1
15	Kalahandi	12	8	112.30	85	0
16	Kandhamal	9	5	109.00	64	0
17	Gajapati	5	6	24.40	1	0
	Total	523	196	3595.93	927	18

b) Rural Roads

939 rural roads (length 2522.484 kms) had been badly damaged due to flood and heavy rain during August. 300 culverts of rural roads had been washed away and 695 culverts had been damaged extensively. The detailed damage position is given below.

Sl.	Name of the District	No of Roads damaged	No of Breaches occurred	Length of Road damaged (In Kms)	No. of culverts damaged	No. of Culverts washed away
1	Mayurbhanj	162	4288	548.549	82	88
2	Balasore	164	2197	467.4	211	0
3	Kendrapara	119	1729	262.085	6	34
4	Jagatsinghpur	95	600	150.890	62	
5	Jajpur	106	3081	301.130	89	
6	Sambalpur	48	9381	193.710	57	
7	Keonjhar	94	870	259.32	111	13
8	Ganjam	73	615	68.9	63	12
9	Bhadrak	78	8414	270.500	14	153
	Total	939	31175	2522.484	695	300

c) Panchayat Roads

8471 Panchayat roads (length 10491.31 kms) had been badly damaged due to flood and heavy rain during first week of August and last week of September. 258 culverts on these damaged roads had been badly affected. The detailed damage position is given below.

Sl.	Name of the District	Roads damaged	Length of Road damaged (In Kms)	Culverts damaged
1	Balasore	3038	3014.51	-
2	Bhadrak	183	1313.76	26
3	Jajpur	822	1347.23	93
4	Gagapati	26	22.12	-
5	Sundargarh	257	178.89	-
6	Kalahandi	670	654.21	21
7	Ganjam	640	741.32	-
8	Jagatsinghpur	641	548.36	-
9	Kendrapara	782	1265.32	25
10	Cuttack	144	123.65	14
11	Mayurbhanj	632	586.21	18
12	Keonjhar	168	156.21	8
13	Rayagada	412	453.28	36
14	Koraput	56	86.24	17
Total		8471	10491.31	258

d) Urban Roads

Due to heavy flood and heavy rain during August and September, the roads of urban areas had been extensively damaged. 424.92 kms of urban roads and 85 culverts had been damaged. Urban drains (length 92.30 kms) had also been damaged. The Urban Local Body wise details are given below.

Sl.	Name of the ULBs	Length of Road damaged (In Km)	No. of Culverts damaged	Length of drain damaged (In Km)
1	Balasore	16.18	-	3.20
2	Jaleswar	17.13	-	-
3	Jajpur	12.05	-	-
4	Keonjhar	8.72	5	2.17
5	Baripada	49.57	17	-
6	Joda	8.10	-	3.4
7	Vyasanagar	16.31	-	4.06

8	Anandpur	32.70	1	-
9	Soro	18.00	6	-
10	Barbil	14.05	-	19.62
11	Bhadrak	7.95	3	6.00
12	Kendrapara	17.49	-	6.26
13	Udala	0.62	-	1.83
14	Karanja	2.5	-	-
15	Rourkela	25.00	20	19.00
16	Phulbani	6.92	-	3.18
17	Basudevpur	44.66	-	-
18	Sundergarh	7.20	16	3.56
19	Chikiti	1.23	-	0.57
20	Jeypore	11.7	-	-
21	Rairangpur	12.00	-	8.11
22	Paralakhemundi	19.90	-	-
23	G. Udayagiri	2.55	2	2.7
24	Gudari	1.20	2	-
25	Rayagada	20.09	-	-
26	Nayagarh	3.84	-	1.00
27	Koraput	2.96	6	-
28	Kashinagar	2.16	-	1.14
29	Kesinga	3.48	1	-
30	Hinjlicut	7.00	4	-
31	Athagarh	3.20	1	2.00
32	Gunupur	3.21	1	3.20
33	Khandapara	2.00	-	1.30
34	Sambalpur	8.85	-	-
35	Pattamundai	14.4	-	-
Total		424.92	85	92.30

Drinking Water Supply Works

a) Rural Water Supply

35 piped water supply systems and 10370 tube wells had been damaged due to continuous inundation of flood water. Besides this 1590 nos. of

platforms had been damaged. The district-wise damage position is given below.

Sl.	Districts	No. of tube- wells damaged	No. of Platforms damaged	No of PWS damaged
1.	Balasore	2806	140	
2.	Bhadrakh	1964	220	2
3.	Cuttack	86	40	1
4.	Gajapati	92	40	
5.	Jajpur	978	400	1
6.	Kalahandi	1500	50	9
7.	Jagatsinghapur	800	50	2
8.	Kendrapada	936	200	
9.	Sambalpur	18		1
10	Mayurbhanj	470	50	
11	Rayagada	400	150	7
12	Sundergarh	18		1
13	Keonjhar	302	250	5
14	Ganjam			6
Total		10370	1590	35

b) Urban Water Supply

1935 tube wells, 138 pump houses and 39 nos. of pipe lines were damaged in urban areas as shown below.

Sl.	Districts	Tube- wells damaged	No. of Pump house damaged	No. of pipe line damaged
1.	Cuttack	1040	86	15
2.	Balasore	332	11	3
3.	Bhadrak	112	4	2
4.	Jagatsinghapir	314	4	6
5.	Jajpur	42	14	6
6.	Mayurbhanj	22	5	2
7.	Raygada	18	3	4
8.	Sundergarh	26	6	
9.	Kendrapara	29	5	1
Total		1935	138	39

Irrigation

a) Minor Irrigation

1473 nos. of MI Projects had been damaged due to flood and heavy rain in the State. The detail district-wise list is given below.

Sl.	Name of the District	No. of projects damaged.
1	Balasore	49
2	Bhadrakh	26
3	Cuttack	87
4	Gajapati	73
5	Ganjam	494
6	Jajpur	88
7	Kalahandi	88
8	Kandhamal	53
9	Kendrapada	4
10	Keonjhar	125
11	Koraput	45
12	Mayurbhanj	97
13	Rayagada	69
14	Sambalpur	34
15	Sundargarh	89
16	Nayagarh	52
Total		1473

b) River and Canal Embankment

Due to heavy flood in Subarnarekha, Baitarani, Budhabalanga, Rushikulya, Badanadi, Vansadhara, Hati and Jalaka, 297 breaches occurred in river and saline embankment. 259 breaches in canal embankments were occurred during this flood. The district-wise breach position is given below.

Sl.	District	Damage to River/Saline Embankment		Damage to Canals		Total
		Breaches	Partial Damages	Breaches	Partial Damages	
		No.	No.	No.	No.	
1	Balasore	61	120	62	40	283
2	Bhadrak	133	99	108	102	442

3	Keonjhar	6	0	39	45	90
4	Jajpur	25	88	1	17	131
5	Ganjam	17	26	7	63	113
6	Raygada	0	8	0	0	8
7	Gajapati	0	5	0	0	5
8	Cuttack	10	48	20	98	176
9	Nayagarh	0	24	0	0	24
10	Jagatsinghpur	0	34	0	27	61
11	Kendrapara	2	231	4	32	269
12	Kandhamal	0	0	18	4	22
13	Sundargarh	0	10	0	10	20
14	Mayurbhanj	43	10	0	0	53
Total		297	703	259	438	1697

c) Drainage System

Due to heavy flood and rain, drainage clearance in the rivers had been badly affected. 396.52 km of drainage system in rivers had been affected by debris and vegetative material. District details are given below:

Sl.No.	District	No. of Works	Deposition of debris & vegetative materials etc. in drainage system(length in K.M)
1.	Balasore	116	141.32
2.	Bhadrak	14	86.20
3.	Jajpur	25	78.50
4.	Kendrapara	27	56.50
5.	Cuttack	5	34.00
Total		187	396.52

d) Lift Irrigation Projects

Due to heavy flood and rain 1584 nos. of Lift Irrigation Projects had been damaged during August and September. The district-wise damage list is given below.

Sl.	District	No. of LIPs damaged by flood
1.	Balasore	381
2.	Bhadrak	414

3.	Jajpur	276
4.	Kendrapara	280
5.	Cuttack	128
6.	Jagatsinghpur	80
7.	Mayurbhanj	25
Total		1584

LOSS ASSESMENT

The total loss to various sectors due to floods/ heavy rain in August & September was Rs 1093.53 crore. The department-wise loss assessment is given below in table.

Sl.	Department	Amount (Rs. in lakh)
1.	Special Relief Commissioner	4219.185
2.	Women and Child Development	18.19
3.	Agriculture	5632.98
4.	Fishery and Animal Resources Development	734.405
5.	Handloom & Textile	69.596
6.	Housing and Urban Development	4292.20
7.	Health and Family Welfare	772.310
8.	Rural Development	7845.726
9.	Panchayati Raj	17428.54
10.	Water Resources	26180.37
11.	Works	37920.23
12.	School and Mass Education	1013.94
13.	Energy	3225.27
Total		109352.942

FLOOD MANAGEMENT

Rescue and Evacuation

Flood warnings were transmitted to the field areas. People from low-lying areas were shifted to safer places. All the five units of Orissa Rapid Action Forces (ODRAF) consisting powerboats were deployed in Balasore, Bhadrak and Jajpur districts for rescue operation. Powerboats and Country

boats were engaged for evacuation of people. 63016 persons were evacuated to safer places. The district wise details are mentioned below:

I.	District	People evacuated	Boats
1.	Balasore	20450	176
2.	Bhadrak	10145	45
3.	Jajpur	4586	37
4.	Mayurbhanj	9173	9
5.	Kendrapara	6132	220
6.	Keonjhar	16	
7.	Sambalpur	1921	
8.	Cuttack	4446	
9.	Rayagada	2464	
10.	Gajapati	1000	1
11.	Jagatsinghpur	1060	2
12.	Ganjam	839	
13.	Sundergarh	784	
Total		63016	490

Free Kitchen

Evacuated persons were provided with adequate quantities of dry food and cooked food through free kitchen centers. 268 free kitchen centers were opened and these covered 46162 beneficiaries. District wise details are given below:

Sl.	District	Free kitchen centres opened	Beneficiaries covered
1.	Balasore	144	22377
2.	Bhadrak	33	10145
3.	Jajpur	7	30
4.	Mayurbhanj	70	8273
5.	Sambalpur	5	1921
6.	Cuttack	9	3416
Total		268	46162

Emergent Relief

48498.40 quintals of Rice, 5133.52 quintals of Chuda, and 550.16 quintals of Gur had been provided the marooned people of different districts as shown below.

(Quantity in quintals)

Sl.	District	Rice	Chuda	Gur
1.	Balasore	18436.42	2812.00	280.00
2.	Bhadrak	20159.34	1199.00	93.00
3.	Jajpur	1151.00	28.12	2.91
4.	Mayurbhanj	608.26	318.94	34.99
5.	Kendrapara	5202.00	11.00	0.75
6.	Cuttack	2200.00	233.58	39.92
7.	Gajapati	20.00	12.00	3.00
8.	Jagatsinghpur	244.21	216.10	36.40
9.	Ganjam	475.25	298.00	58.50
10.	Sundergarh	1.92	4.78	0.69
Total		48498.40	5133.52	550.16

Temporary Shelter Materials

62490 families were provided with polythene sheets for temporary accommodation as their houses were fully or severely damaged.

Sl.	District	No. of polythene Pcs distributed
1.	Balasore	50690
2.	Bhadrak	4500
3.	Jajpur	3000
4.	Mayurbhanj	4000
5.	Kendrapara	300
Total		62490

Health & Sanitation

In order to prevent outbreak of epidemics, 171 medical teams were deployed in Balasore, Bhadrak, Jajpur, Cuttack, Jagatsinghpur and Mayurbhanj districts. 93 Medical Relief Centres were opened. 80,326 ORS packets and 802,820 Halogen tablets were distributed. District wise details are given below.

SI	District	Medical Teams Deployed	Medical Centers opened.	ORS	Halogen Tablets
1.	Balasore	33	46	37431	315700
2.	Bhadrak	47	17	8381	84240
3.	Kendrapara	57		20443	197700
4.	Mayurbhanj	7			
5.	Jajpur	7	30	14071	205180
6.	Cuttack	12			
7.	Jagatsinghpur	8			
Total		171	93	80326	802820

Drinking Water

Arrangements were made for supply of safe drinking water in the flood affected areas. 21 water tankers were deployed in Balasore, Kendrapara, Mayurbhanj, Cuttack, Jagatsinghpur and Keonjhar districts. 499400 water pouches were distributed. 3956 Tube wells had been disinfected. District-wise details are mentioned below.

SI	District	Tankers Deployed	Water Pouches Distributed	Tube Wells Disinfected
1	Balasore	6	50900	-
2	Bhadrak	-	94000	2042
3	Kendrapara	2	137000	704
4	Mayurbhanj	2	-	-
5	Jajpur	-	136500	1210
6	Cuttack	5	75000	
7	Gajapati	-	6000	
8	Keonjhar	2	-	
9	Jagatsinghpur	4	-	
Total		21	499400	3956

Animal Care

Affected animals were shifted to safer places. 107 veterinary teams were deployed in the flood affected areas. 38325 lakh livestock had been treated and vaccinated. 895 MT of cattle feed had been distributed. The district-wise position is mentioned below.

Sl.	District	Cattle feed distributed in MT	No. of mobile veterinary team deployed	No. of livestock treated
1.	Balasore	150	28	13149
2.	Bhadrak	180	27	6683
3.	Jajpur	140	15	3652
4.	Mayurbhanj	40	12	2361
5.	Kendrapara	190	25	12480
6.	Jagatsinghpur	195	-	-
Total		895	107	38325

VISIT OF CENTRAL TEAM

An Inter-Ministerial Central Team headed by Shri Naveen Verma, Joint Secretary, Ministry of Home Affairs, Government of India, visited the state during 24th October to 27th October to assess the flood situation.. They were apprised about the severity of damages due to flood / heavy rain.

Assistance sought from Govt. of India

The State Govt. had submitted a Memorandum on flood / heavyrain to Govt. of India vide letter No.3901 / SRC Dt.26.10.07 seeking the following assistance.

- iv) Financial Assistance of Rs.1093.53 crore out of NCCF for relief & immediate restoration measures.
- v) Special allocation of 30,983 IAY house for flood victims of BPL category, whose houses have been damaged due to floods.

Assistance received from Govt. of India

The High Level Committee had approved the following assistance on the basis of the recommendation of Inter-Ministerial Group and report of Central Team for flood,2007.

1. Rs. 139.69 crore from NCCF subject to adjustment of 75% of the balance available in the CRF account of the State for the instant calamity. Based on the expenditure details received from the State Govt., the assistance required to be released from the NCCF works out to nil.

2. Rs.2.376 crore from Special Component of ARWSP.

Other Calamities

Land slide

- 1) On 06.08.2007, landslide occurred near village Gohirgam of Srirampur GP of Kotagarh Block of Kandhamal district. About 33 families left the village and took shelter in nearby Srirampur M.E. School, no loss to the life and properties have been reported.

- 2) On 23.09.2007, from 9.00 PM to 1.00 PM due to heavy rain, massive landslide occurred in Laxmi Dungri of Sambalpur Municipal Area by the side of NH6. The landslide was accompanied by falling of huge stones. The dimension of landslide was 100 ft. high and 150 ft. wide, which had resulted in total blockage of NH6. There was no loss / damage to life and properties. Immediate steps were taken for clearance of landslide mass and restoration of vehicular traffic on NH6.

SIDR'2007

During November'2007 IMD issued a severe cyclonic storm (SIDR) warning and reported that the SIDR was likely to hit Orissa. As a preparedness measure, the Collectors of coastal districts namely

Balasore, Bhadrak, Ganjam, Jajpur, Jagatsinghpur, Kendrapara, Puri and Nayagarh were requested to evacuate the people from the low lying areas likely to be affected by SIDR. For such preparedness purpose, funds out of CRF were provided to coastal Collectors under different units in advance to meet any eventuality. Accordingly Collectors of coastal districts had evacuated the people from low lying areas of the coast and put themselves in nearby cyclone shelters. Fortunately, the cyclone (SIDR) did not hit Orissa and moved to Bangladesh. Lastly it hit Bangladesh coast causing massive destruction. The detail of funds provided to Districts is mentioned below.

Sl.	District	Rs in Lakh.
1	Balasore	30.00
2	Bhadrak	10.00
3	Jajpur	10.00
4	Kendrapara	32.00
5	Jagatsinghpur	22.63
6	Ganjam	25.00
7	Puri	20.00
8	Nayagarh	10.00
Total		159.63

Tsunami Threat

Indian National Centre For Ocean Information Services, Hyderabad (INCOIS) in their 1st bulletin dt.13.09.07 informed that an earthquake of magnitude 7.8 (Great) occurred in Southern Sumatra, Indonesia at 05.09.05 Hrs (IST). Ministry of Home Affairs had issued "Tsunami Warning" to the State requesting to keep close watch on the situation. Accordingly; alert message had been issued to Collectors of coastal districts.

Fire Accidents

Most of the people of the state are socially and economically backward, live in villages in thatched houses, which are prone to fire. Fire accidents generally occur during summer and it causes unpredictable loss of life and properties.

District wise loss of life and properties due to fire accident during the period under report is given below.

Death due to Fire Accident

Sl.	District	Name of the Deceased	Age	Village	Block /Tahasil / Police Station	Date of Death
1	2	3	4	5	6	7
1	Angul	Ajaya Kumar Gadanaik S/o Sridhar	36	Padapada	Chhendpada	29.01.07
1	Dhenkanal	Biswambar Sahoo S/o Madhu	58	Golapada	Balimi	14.01.07
2	do	Jugal Pradhan S/o Hadia	50	Mhalanda	Babiri	17.08.07
3	do	Laxmipriya Sahoo D/o Madhusudan	2	Gangadhar Prasad	Sadar	16.10.07
1	Jagatsinghpur	Jhunu Das S/o Ramesh	30	Odisa	Jagatsinghpur	31.03.07
1	Jajpur	Sulekha Rout W/o Sudarshan		Arthanga	Mangarajpur	16.03.07
2	do	Ganesh Tarei		Purusottampur	Sadar	20.03.07
1	Kandhamal	Anama Bindhani S/o Petu		Budrumaha	Baliguda	18.12.07
1	Kendrapara	Dali Behera		Alapua	Pattamundai	24.01.07
2	do	Ranjan Mandal S/o Aswini		Pankapal	Mahakalpada	10.07.07
1	Khurda	Chhabi Behera S/o Satyabadi		Biswalpada	Bhubaneswar	09.03.07
1	Mayurbhanj	Jivani Soren S/o Chaitanya	29	Dhodichua	Badampahar	01.04.07
2	do	Modiary Hembram S/o Sriram	42	Maharajapur hill		16.1.07
3	do	Chulba Hembramw/o- Modiary	35	Maharajapur hill		16.1.07
4	do	Dambu Sikra S/o Galai	8	Ambatalia		16.1.07
1	Nawarangpur	Panka Bhatra S/o Sanu	47	Saraguda	Dabugaon	26.03.07
1	Rayagada	Huika Anjana D/o Huika aBari	3	Kandha Khatigada	Rayagada	18.2.07
2	do	Achhana majhi D/o Cherunga	8	Limadar	Kasipur	11.02.07
3	do	Dasarathi Majhi s/o Cherangu	1	Limadar	Kasipur	11.02.07
1	Subarnapur	Bhikari Sahoo S/o Rajan	75	Raipali		26.12.07
1	Sundergarh	Machindra Dhrua brother of Ajit	28	Bandhapali	Sadar	13.10.07

Loss of Property due to Fire Accident and Account of Relief given during the year 2007-08

[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	
								HBA & Others	Ex-gratia
1	2	3	4	5	6	7	8	9	10
1	Angul	240	211	434	5609800	1	9	762,600	50000
2	Balasore	336	191	336	9556500			1,275,600	
3	Bargarh	24	24	29	81300				
4	Bhadrak	248	241	284	8163470			616,650	
5	Bolangir	46	30	129	1107000	1		141,501	50000

6	Boudh	121	121	536	11088000		18	746,473	
7	Cuttack	565	324	750	6867100	3	4	393,200	
8	Deogarh	21	18	21	194500			18,000	
9	Dhenkanal	215	215	585	8872500			854,650	
10	Gajapati	53	66	234	654400			1,311,436	
11	Ganjam	387	361	2493	18588900	2		2,117,131	10000
12	Jagatsinghpur	246	197	275	4483500		4	376,900	
13	Jajpur	261	261	353	720000			46,000	
14	Jharsuguda	2	2	16	114800			75,400	
15	Kalahandi	20	20	20	261650			9,000	
16	Kandhamal	143	124	168	2196100			226,000	
17	Kendrapara	301	251	341	8248800			503,700	
18	Keonjhar	175	167	391	19298500	1		1,055,400	50000
19	Khordha	216	216	530	8276800			667,150	
20	Koraput	209	172	227	1437100			247,850	
21	Malkanagiri	116	87	116	1482450			62,800	
22	Mayurbhanj	440	301	431	6816500	1		310,100	50000
23	Nawarangpur	150	119	144	1926880	1		178,900	50000
24	Nayagarh	132	130	497	4871541		1	574,200	
25	Nuapara	4	4	4	100500			3,900	
26	Puri	266	269	647	8042000	1	6	1,474,100	
27	Rayagada	56	56	167	3146100			746,350	
28	Sambalpur	49	48	64	769520			46,900	
29	Subarnapur	108	108	265	3085500	1	12	541,700	100000
30	Sundargarh	7	7	7	123100				
Total		5157	4341	10494	146184811	12	54	15383591	360000

Lightning

In comparison to other natural calamities, the number of death cases due to lightning is high in Orissa. It occurs through out the year. 351 persons were lost their

valuable lives during the year 2007. The detail list of the victims died due to lightning is given below.

Lightning Death

2007

Sl.	Districts	Name of the Deceased	Age	Village / PS / Tahasil	Block /Tahasil / Police Station	Date of Death
1	Angul	Saarat Behera W/o Kastu	30	Telisinga	Kaniha	01.05.07
2	do	Rekha Biswal W/o Madhab Biswal	70	Sapoinali	Chhendipada	07.05.07
3	do	Ahlya Sahoo W/o late Pradeep Pradhan	26	Madhapur	Bantala	07.05.07
4	do	Cina Sahoo W/o Banambar Sahoo	55	Madhapur	Bantala	07.05.07
5	do	Dhableswar Sethi S/o Karmu		Sorgiseni	Athamallik	18.05.07
6	do	Kusuma Dehury W/o Sarata	22	Budhapark		15.06.07
7	do	Labanya Sahoo W/o Banambar	55	Benagadia	Banarpal	04.06.07
8	do	Gunapradhan W/o Bhaskar		Bhagna	Jhakargarh	26.07.07
9	do	Rusi Sahoo S/o late Sikhar		Nizgar Town	Talcher	27.07.07
10	do	Lachman Behera S/o Prafulla	50	Panduri Pathar	Athamallik	21.09.07
11	do	Alekha Sethy S/o Budhu	55	Tentalipalli	Athmalik	21.09.07
12	do	Babula Behera S/o Kantara	12	Dinabandhupur	Athmalik	20.09.07
13	do	Dinabandhu Pradhan S/o Basu		Balasingha	Angul	14.09.07
14	do	Binod Sahoo S/o Harihar	40	Jakub	Angul	07.10.07
1	Balasore	Santilata Das	48	Chotakhanpur	Baliapal	08.04.07
2	do	Laba Kumar Pal S/o Prafulla	41	Khedasahi	Bhogarai	22.02.07
3	do	Harapriya D/o Haranarayan	12	Deula	Bhogarai	22.02.07
4	do	Tapan @ Bhagaban Behera S/o Gouranga	30	Dabunda	Bhogarai	04.08.07
5	do	Banshi Behera S/o Navendra	25	Dabunda	Bhogarai	04.08.07
6	do	Jhadeswar Sahoo S/o Kali	37	Dabunda	Bhogarai	04.08.07
1	Bargarh	Manabihar Dansena S/o late Hrushikesh	30	Banamal	Paikmal	17.04.07
2	do	Jayanti Banchher W/o Narayan		Kuisina	Bhatli	27.06.07
3	do	Sadanand Mesua S/o Ghondu		Piteipali		13.06.07
4	do	Biswanath Bisi S/o late Parikha		Tingipali	Barpali	26.07.07
5	do	Kaiash Bariba S/o Sukhidar		Rasamunda	Paikmal	02.08.07
6	do	Ghanashyam Naik S/o Mahadev		Jhenganadihi	Paikmal	01.09.07

7	do	Pabitra Sahu W/o Munuka		Halapali	Bhatli	01.09.07
8	do	Aswini Sahu W/o Anirudha		Garvana	Sohela	01.09.07
1	Bhadrak	Basanti Jana W/o Sunil		Sanasankarpur	Naikanidhi	05.02.07
2	do	Babaji Rout S/o Laxmidhar Rout	58	Belgadia	Bhandaripokhari	12.04.07
3	do	Lipi Das D/o Arjun Das	8	Uttarbad	Bhandaripokhari	25.05.07
4	do	Panchanan Bal S/o Maguni	45	Karanpokhari	Bansada	01.06.07
5	do	Kasinath Das S/o Jagabandhu		Padhuan	Basudevpur	13.06.07
6	do	Jayanti Jena W/o Kartik	45	Nuapokhari	Agarpada	18.07.07
7	do	Hadibandhu Ghadei S/o Indramani	60	Prabodhpur	Basudevpur	17.07.07
8	do	Pradeep Kumar Nayak S/o Mayadhar	22	Baralpokhari	Bhadrak	14.06.07
9	do	Srikant Jena S/o Sanatan	37	Rambhila	Bhadrak	18.07.07
10	do	Subash Ch. Ray S/o late Bishnumohan	50	Rajualibindu	Bhadrak	22.07.07
11	do	Ranjita Ray W/o Bhimsen Sahoo	50	Dhamnagar	Bhadrak	22.07.07
12	do	Prasant Kumar Sahoo S/o Jitendra	32	Sarapada	Bhandaripokhari	01.09.07
13	do	Laxmidhar Nayak W/o Purusottam	40	Barapada	Bonth	12.09.07
14	do	Kalpna Patra W/o Anant	42	Badahabeli Sahi	Naakaridhi	18.10.07
1	Bolangir	Kunu Nag S/o late Ramachandra		Zuhakhan	Tusra	26.06.07
2	do	Sitaram Bag S/o Fagun		Sirabahal	Tusra	10.08.07
3	do	Dayanidhi Nag S/o Budhu		Singhanimunda	Bolangir	26.08.07
4	do	Radheshyam Bagary S/o Tahasil		Budalguma	Tusra	05.09.07
5	do	Rajkishore Mishra S/o late Laxman		Sudpara	Bolangir	31.05.07
6	do	Binod Bihari Mishra S/o late Seshdev		Kangaon	Bolangir	20.09.07
7	do	Sukula Patel W/o Kartik		Dhanomunda	Khaprakhol	26.06.07
8	do	Jhash chandan D/o Tanua		Siluar	Titilagarh	20.09.07
9	do	Prafulla Chandan S/o Tanau		Siluar	Titilagarh	20.09.07
10	do	Bhasa Banchhar S/o Mulia		Chilhuda	Titilagarh	20.09.07
11	do	Mayadhar Chigun S/o Milu		Madhyapur	Patnagarh	24.08.07
12	do	Dudheswar Bag S/o Rupdhor		Gargarhbahal	Kantabanji	12.05.07
13	do	Balmukunda Tumunia S/o Mayadhar		Antavla		
14	do	Mena Pandi S/o Chatur		Madhyapur	Patnagarh	24.08.07
15	do	Bishikeshan Bhati S/o Bhagat Bhati		Uding	Belpara	13.06.07

1	Boudh	Gividhari Rana S/o Anirudha		Gadaguva	Kantamal	07.05.07
1	Cuttack	Nirmal Das S/o Dijabar		Balimunda	Athagarh	28.04.07
2	do	Sodasa Mukhi S/o Rasananda		Kamar Sahi	Niali	07.05.07
3	do	Dipes Karan S/o Jogendra		Kumarpaur	Athagarh	09.05.07
4	do	Balaram Jena S/o Gobardhan		Nistipur	Banki	17.05.07
5	do	Pintu Sinku S/o Dula		Ramachandrapur	Tangi-choudwar	28.04.07
6	do	Balabhadra Jena & Balaram S/o Gobardhan		Nistipur	Banki	17.05.07
7	do	Bankanidhi Behera S/o Fakir		Balisahi Samit	Badabar	13.06.07
8	do	Purna Ch. Behera S/o Bharat		Balisahi Samit	Badabar	13.06.07
9	do	Japani Nayak S/o Sridhar		Padanpur		14.06.07
10	do	Madhab Ch. Basti S/o Duryadhan		Talabasta		14.06.07
11	do	Snehalata Behera S/o Surendera		Mandapada	Ward No.-14	14.06.07
12	do	Gundicha Mahakud S/o Surath	22	Sukata	Narasinghpur	27.07.07
13	do	Mili Nayak D/o Purach	12	Sakata	Narasinghpur	27.07.07
14	do	Mamali Parida D/o Goutam	6	Krushna Prasad	Narasinghpur	27.07.07
15	do	Santosh Behera S/o late Muli		Balrampur	Samil Baunsidhar	14.06.07
16	do	Kalpna Sahoo D/o late Mahendra		Raghunathpur Patra	Athagarh	21.06.07
17	do	Bimbardhar Behera S/o Dhari	83	Manapur	Baramba	12.07.07
18	do	Anadi Pradhan S/o Dutiya	22		Angul	05.08.07
19	do	Anji Pradhan D/o Madan	23		Angul	05.08.07
20	do	Sarbeswar Dehury S/o Panu	24		Angul	05.08.07
21	do	Nakhia Dehury S/o Budu	23		Angul	05.08.07
22	do	Agasti Majhi	23		Sambalpur	05.08.07
23	do	Indira Singh W/o Raja			Angul	05.08.07
24	do	Jogendra Sahoo S/o Bidyadhar Sahoo		Sudu Sailo	Kantapada	04.08.07
25	do	Kuma Mallik W/o Natabar		Toroto Sasan	Salipur	09.08.07
26	do	Golak Chandra Swain S/o Balu		Konapada	Cuttack	20.07.07
27	do	Maguri Jena S/o Chaitanaya		Parajapada	Baramba	03.08.07
28	do	Bimbardhar Behera S/o late Dhani		Manpur	Baramba	12.07.07
29	do	Rutuparna Behera S/o Santosh		Kumsar	Banki	05.08.07
30	do	Golapa Ghadei D/o Basanta		Bali	Athagarh	03.08.07
31	do	Tikili Ghadei W/o Basanta		Bali	Athagarh	03.08.07

32	do	Basanta Ghadei S/o Bairagi		Bali	Athagarh	03.08.07
33	do	Kabita Nayak W/o Parsaram		Deula	Athagarh	27.08.07
34	do	Pitabasa Nayak S/o Jagabandhu		Guali	Tangi-Chowdwar	29.08.07
35	do	Sita Dei W/o Bansidhar Behera		Jamadeipur	Tangi-Chowdwar	29.08.07
36	do	Akshay Kumar Nayak S/o Babaji		Adaspur	Niali	26.09.07
37	do	Bibekananda Behera S/o Laxman		Sabtripar	Gurudijhatra	25.09.07
1	Dhenkanal	Prakash Sethi S/o Sudarshan	13	Maidharpur	Sadar	29.04.07
2	do	Kumari Dehuri W/o Ramesh	35	Sagarpasi	Sadar	29.04.07
3	do	Nilamani Naik S/o Chaitanya	45	Sagarpasi	Sadar	29.04.07
4	do	Phagu Choudhury S/o Rajkumar	26	Suraia	Sandeva, Bihar	17.04.07
5	do	Rasmita Mallick D/o Bidesi	15	Khajuridiha	Kamakshyanagar	07.05.07
6	do	Ratani Naik W/o Golekh	45	Mugupada	Kamakshyanagar	07.05.07
7	do	Fhuika Behera W/o Kandha	55	Gulhei	Hindol	07.05.07
8	do	Basant Kumar Sahoo S/o Madhu	45	Rajamohanpur	Hindol	07.05.07
9	do	Raghu Munda S/o Ram Munda	21	Dallar	Gondia	07.05.07
10	do	Raibari Kandakel W/o Nalu	50	Ramei Khaman		28.05.07
11	do	Birabar Hota S/o Benudhar	34	Chirulei	Gondia	28.05.07
12	do	Naran Naik S/o Dhaneswar	34	Kankana	Kamakshyanagar	31.05.07
13	do	Guru Palei S/o Purna Chandra	12	Arnapurnapur		01.06.07
14	do	Munu Sathy S/o Gouranga	10	Sogar	Khamar Tumusi	30.05.07
15	do	Pankajini Mohanty W/o Hadibandhu		Sograpasi	Sadar	28.05.07
16	do	Pabitra Dehury S/o Darsani	32	Arnapurnapur	Gondia	01.06.07
17	do	Sasika Dehury W/o Pada	35	Karageh	Kamakshyanagar	04.06.07
18	do	Panchanan Naik S/o Dhoboi	60	Dudurkote	Hindol	14.06.07
19	do	Gayachand Naik S/p Panchanan	38	Dudurkote	Hindol	14.06.07
20	do	Govinda Naik S/o Chakradhar	85	Motong	Motong	14.06.07
21	do	Bimbardhar Palei S/o late Anadi	33	Chirulei	Gandia	12.07.07
22	do	Bathi Dehury W/o Bhima	57	Arnapar	Gandia	12.07.07
23	do	Sunatan Dehury S/o Padan		Nadiali	Sadar	12.07.07
24	do	Golekh Das S/o Auta	55	Bramhania	K. Nagar	19.07.07
25	do	Usha Bhoi W/o Hari	65	Bramhania	K. Nagar	10.07.07
26	do	Sanju Patra W/o Rabi	20	Kuninda	Bhuban	19.07.07

27	do	Samir Mallik S/o Hemanta	20	Kingal	Bhuban	18.07.07
28	do	Tikirani Behera W/o Purusottam		Mahulakhandi	Gondia	03.08.07
29	do	Sumati Pradhan W/o Laxmidhar	35	Pingua	Gondia	09.08.07
30	do	Dhruba Charan Das S/o Kartik	32	Jakia	Gondia	09.08.07
31	do	Kunal Pradhan S/o Bholeswar	30	Makuakateni	Kamakhsya	08.08.07
32	do	Silua Behera S/o Laxmidhar	18	Chandipal	Bhuban	10.08.07
33	do	Anita Majhi D/o Ekadasi	17	Sundekateni	Bhuban	20.08.07
34	do	Nirmal Chandra Dash S/o Kailas	19	Arakhapal	Kamakshyanagar	21.08.07
35	do	Choudhury Samal S/o Kathe	50	Kochilamoda	Motanga	
36	do	Sarat Ghadei S/o Bansidhar	40	Ostapal	Sadar	04.09.07
37	do	Prafulla Kumar Rout S/o Akula	56	Pimpla	Kamakshyanagar	28.08.07
38	do	Hadibandhu Dehury S/o late Padan	49	Nadiali	Sadar	26.09.07
1	Gajapati	Sankura Mandal S/o Sadanga	47	Balimunda	Guma	22.05.07
2	do	Subodini Mandal W/o Sakura	50	Balimunda	Guma	22.05.07
1	Ganjam	Satyabhama Arakh W/o Mahana		Dubduba	Bhanjanagar	21.03.07
2	do	Sunita Behera D/o Nakula		Dasapur	Konisi	10.04.07
3	do	Jambubati Parida W/o Dinabandhu		Kelapankala	Baguda	11.03.07
4	do	Kabi Nayak S/o Tarini		Sunapali	Bhaminagar	29.04.07
5	do	Alekha Nahak S/o Tarini		Kanabhai	Kodala	07.05.07
6	do	Jayram Gouda S/o Gantei		Burupada	Hinjiliput	22.05.07
7	do	Tofan Gouda S/o Kasi		Narayanpur	Aska	22.05.07
8	do	Bauri Gouda S/o Khetra		Satpenthia Gopalpur	Digapahandi	22.05.07
9	do	Sahadev Nayak S/o Sakuri		Chingudghai	Purusottampur	22.05.07
10	do	Ramnath Pradhan S/o Biswanath		Padmapur	Aska	31.05.07
11	do	Kanhia Gouda S/o Khali		Khajuria	Kodala	31.05.07
12	do	Dhabari Singha W.o Surendra		Biswanathpur	Digapahandi	01.06.07
13	do	Sania Sahu S/o Khetra		Gada Govindpur	Gada Govindpur	01.06.07
14	do	Narasingha Mohanty		Patrapur	Patrapur	14.06.07
15	do	P. Laxmi W/o P. Sarath		Palura	Konisi	14.06.07
16	do	Narayan Jena S/o Dandapani		Gajendra	Bhanjanagar	26.06.07
17	do	M. Bulu S/o M. Kuruga	26	Kalaba	Chikiti	12.07.07
18	do	Kalia Gouda S/o Ulla	34	Sindhaba	Digapahandi	12.07.07

19	do	Dibaka Swain S/o Arakhita	25	Nuagaon	Bhanjanagar	12.07.07
20	do	Sudarsan Mohanty S/o Gantayat		Kaniyaribadi	Kholikote	07.06.07
21	do	Sudarsan Sahu S/o late Banambar	42	Dimiria	Khalikote	05.10.07
22	do	Bagha Behera S/o late Jushistir		Bada Harijan Sahi	Suruda	03.10.07
1	Jagatsinghpur	Pitabasa Hazra S/o late Satrugna	34	Nuabazar	Paradeep	06.02.07
2	do	Prabhash Kumar Hazra, S/o Pitabash	7	Nuabazar	Paradeep	06.02.07
3	do	Prahallad Das S/o late Janmu	55	Nimakana	Tirtol	07.05.07
4	do	Basanta Barik s/o Dambarudhar	45	Ghosaghar	Ersama	12.09.07
1	Jajpur	Haladhar Swain S/o Brajakishore		Odogoon	Dharmasala	25.04.07
2	do	Sulekha Rout W/o Sadarsan		Arthanga	Mangarajpur	16.03.07
3	do	Sasmita Sutar		Mangalpur	Mangalpur	17.05.07
4	do	Dinabandhu Das S/o Bikal		Badachapoi		30.05.07
5	do	Sarat Behera S/o Gobinda		Kantira	Sukinda	06.06.07
6	do	Gadadhar Mallik		Bairmal	Sukinda	03.08.07
7	do	Prafulla Sahoo		Anjira	Dharmasala	17.09.07
8	do	Bidyadhar Behera S/o Dhaneswar		Bichhakhandi	Dharmasala	01.06.07
9	do	Harihar Pradhan S/o Tiham		Bichhakhandi	Dharmasala	01.06.07
10	do	Ajaya Kumar Parida S/o Narayan		Buleipur		08.09.07
1	Jharsuguda	Munu Hemram S/o late Sukhram	22	Pipilimal	Belmhar	12.05.07
2	do	Runulubara S/o late Ramratan		Jamgaon	Rengali	22.06.07
3	do	Pandabamajhi S/o Hari Majhi		Jamgaon	Rengali	26.06.07
4	do	Jagatkhadia S/o Bedar Khadia		Jamgaon	Rengali	26.06.07
5	do	Pitambar Bhue S/o Gothai	55	Pandari	Lakhanpur	10.08.07
6	do	Nikita Badei D/o Minaketan	8	Barpalli	Brajarajnaragar	02.10.07
1	Kalahandi	Lalita Majhi W/o Lipin	25	Sanrapadar	Kesinga	21.04.07
2	do	Md. Kalam S/o Md. Bhola		Ghodaghat Chowk	Bhawanipatna	13.05.07
3	do	Mamata Besra D/o Devi Singh	17	Badapadaguda	Koksora	04.06.07
4	do	Dujan Sabar S/o Prahallad	40	Phapgaon	Koksora	13.06.07
5	do	Kamal Lochan Bisi S/o Bamdev	35	Nuaguda	Junagarh	19.06.07
6	do	Khageraj Kumura S/o Bipindra	7	Damharlakhunta	M. Rampur	19.06.07
7	do	Kalendri Sagar W/o Satyananda		Chikbila	Dharamgarh	14.09.07
8	do	Dasumat Bag S/o Ghasi		Mundraguda	Junagarh	21.09.07

9	do	Navendra Panigrahi S/o Mukunda		Mahima	Koksora	12.09.07
1	Kandhamal	Ramesh Penthes S/o Lebe	35	Tadameru	Khajuripada	31.05.07
2	do	Nilanchal Pradhan S/o Bulu		Jidingisabi	Raikia	07.06.07
3	do	Sujit Nayak S/o late Kamraj		Madinajia	Raikia	07.06.07
4	do	Punyabanta Mallik S/o Subash	11	Brodegua	Khajuripada	03.06.07
5	do	Ragi Baliarsingh S/o Narberda		Bujuli	Raikia	03.06.07
6	do	Prasant Pradhan S/o late Sesha	35	Budedipada	Raikia	27.08.07
1	Kendrapara	Sarbeswar Mallik S/o Arakhita		Bharatpur	Kendrapara	18.04.07
2	do	Nrushinga Charan Sahoo S/o Dushasan		Benipur	Derabis	29.04.07
3	do	Umesh Mallik S/o Pari Mallik	18	Ayeba	Kendrapara	19.05.07
4	do	Panchanan Mallik S/o Gaji Mallik	63	Palakama	Kendrapara	20.05.07
5	do	Trilochan Pradhan S/o Hrushkesh Pradhan		Haladia	Marshaghai	21.06.07
6	do	Batakrushna Jena S/o Yudhistir	30	Brahanapur	Patamunda	12.07.07
7	do	Ramesh Ch. Swain S/o Muralidhar	49	Badari	Patkura	14.07.07
8	do	Rajkishore Behera S/o Dolagobindo	35	Kanheipur	Kendrapara	21.06.07
9	do	Sarat Ch. Rout S/o Nakula	50	Jayapur	Brahmansahi	25.07.07
10	do	Krupasindhu Behera S/o Purnananda		Tentulikol	Rajkankina	05.08.07
11	do	Ramesh Ch. Nayak S/o Narayan		Manitri	Patkura	04.08.07
12	do	Baidhar Nayk S/o Nari	22	Khamasahi	Rajnagar	09.08.07
13	do	Bhaskar Jena S/o Rai	55	Krushnadaspur		01.06.07
14	do	Bhabani Sankar Satpathy S/o Narendra		Naraharipur	Kendrapara	26.09.07
15	do	Sarat Rout S/o Adhikari	40	Nagapur	Kendrapara	11.09.07
16	do	Ajay Kumar Nayak S/o Narayan	56	Hatia	Patkura	03.10.07
17	do	Rajkishore Lenka S/o Dhari	50	Koro	Kendrapara	07.10.07
18	do	Krushna Chandra Mallik S/o Banchhanidhi	57	Nadia barai	Patkura	17.10.07
1	Keonjhar	Baruan Jhalia S/o Mahendra		Pachanga	Anandpur	13.07.07
2	do	Syamsundara Naik S/o Punia		do	do	13.07.07
3	do	Babaji Naik S/o Pania		do	do	13.07.07
4	do	Ghasiram Munda		Dasapada	Patna	26.07.07
5	do	Kautuki Naik W/o Nisakar		Kashipal	Baria	02.08.07
6	do	Nandi Guman D/o Jaladhar		Anandpur	Anandpur	08.08.07
7	do	Manoj Kumar Mohanty S/o Nabaghana		Siapada	Ramachandrapur	07.09.07
8	do	Sita Hasda W/o Laxman		Badakusapada	Anandpur	21.05.07
9	do	Sadasiba Das S/o Narayan		Dhenkia	Ghasipur	13.07.07

10	do	Sursingh Munda S/o Khatu		Jamudala	Champua	13.07.07
11	do	Giridhari Das S/o late Gunduri		Salabani	Anandpur	13.09.09
12	do	Santilata Pradhan W/o Umakanta Pradhan		Mahula Pankha	Soso	19.07.07
13	do	Kailash Ch. Dehury S/o late Arjun Dehury		Telkoi	Telkoi	26.08.07
14	do	Susila Munda W/o Trinath		Saleikana	Telkoi	22.06.07
15	do	Kanchan Dehury		Ptulia	Ssadav	04.06.07
16	do	Sukala Naik @ Dinabandhu Naik		Goras	Patna	19.08.07
17	do	Sriram Naik S/o Haladhar		Goras	Patna	19.08.07
1	Khurda	Bijaya Tarei S/o Gati Tarei		Narendrapur	Banapur	22.05.07
2	do	Bhadi Nayak W/o Ratnakar	55	Tapanga	Baghatangi	14.06.07
3	do	Kailash Naik S/o late Baraja		Japsara	Chandaka	12.06.07
4	do	Ramesh Munda S/o Garadi		Jaganath Prasad	Chandaka	04.08.07
5	do	Gobinda Pradhan S/o Gopi		Aseli	Jankia	13.09.07
6	do	Chaitanya Nayak		Haripur	Bolgarh	07.05.07
7	do	Sasmita Mohapatra W/o Satyabrata		Chandrasekharpur	Khurda	
1	Koraput	Damadar Lengudia S/o Madhusudan	35	Sundhiput	Patangi	30.05.07
2	do	Gita Pujari W/o Prasant	18	Sundhiput	Patangi	30.05.07
3	do	Parvati Pujar W/o Harendra	27	Sundhiput	Patangi	30.05.07
4	do	Damburu Jani S/o Nabin	30	Hingliput	Patangi	31.05.07
5	do	Sugudhi Nachika S/o Bharat	28	Paridiguda	Koraput	01.06.07
6	do	Gurubari Nayak W/o Durjya	22	S. B. Nuagad		01.06.07
7	do	Sitru Khora S/o Bisu	38	Badal Karai	Potangi	13.06.07
8	do	Karma Minika	36	Titijha	Koraput	13.06.07
9	do	Somodan Muduli S/o Trinath	25	Koraput		13.06.07
10	do	Arjun Guntal S/o Sania	32	Polisbeda	Machkund	28.07.07
11	do	Manika Gouda W/o Saheb	27	Pandsaguda	Boriguma	24.07.07
12	do	Dakhi Pandaka W/o Dhana		Podagada	Maliguda	30.09.07
13	do	Gangadhar Pajari S/o Niran		Guniaguda	Kotpad	26.09.07
1	Malkangiri	Balaram Petia S/o Pradhan Petia	43	Patraguda	Malkangiri	27.05.07
2	do	Prabn Bairagi S/o Pankaj	25	Medical Colony	Malkangiri	27.05.07
3	do	Pankaj Bairagi S/o Dulal	48	Medical Colony	Malkangiri	27.05.07
4	do	Ganesh Nial S/o Chandra	30	Edn. Colony	Malkangiri	27.05.07
5	do	Inge Durua W/o Late Irma	45	Challanguda	Malkangiri	27.05.07
6	do	Kamlesh Gupta S/o late Rama Karan	35	Matheili	Mathili	20.07.07
7	do	Lachman Gadba S/o late Nanda		Gandiaguda	Malkangiri	25.07.07
8	do	Smt. Michu Addi W/o late Michu Mala		Tendrapalli	Mota	23.07.07
9	do	Sombara Mandagadia S/o Mangda	45	Kamalapadar	Mathali	01.09.07

10	do	Ananta Biswas S/o Panchuram	55	M.V. 84	Malkangiri	02.10.07
1	Mayurbhanj	Raibari Hembram W/o Raju	25	Nuapana	Raruan	07.02.07
2	do	Anjana Hembram D/o Raju	5	Nuapana	Raruan	07.02.07
3	do	Taranun Bewa W/o Md. Sagir		Dundu	Bahalda	08.04.07
4	do	Sambari Laguri W/o Sanapanda Laguri		Nedhuapal	Karanjia	15.05.07
5	do	Mangal Singh S/o Tuna Singh		Balagadia	Kaptipada	06.05.07
6	do	SK. Mansur S/o Makram	61	Gobindpur	Baising	21.05.07
7	do	Rajendra Nayak S/o late Chintamani	36	Ghagiander	Rauran	04.06.07
8	do	Thakura Maund S/o Sogram Murmu		Ghodabandha	Moroda	12.06.07
9	do	Santosh Kumar Singh		Pandasole	Suliapada	21.06.07
10	do	Umakant Singh		Pandasole	Suliapada	21.06.07
11	do	Rajendra Nayak S/o late Chintamani	36	Ghagi	Raruan	04.06.07
12	do	Rukmani Mohant D/o Purnachandra		Damurdiha	Karanjia	16.06.07
13	do	Rajani Mohanta, w/o Sanatana		Mirgimunda		22.06.07
14	do	Gambhei Behera		Chandria	Khunta	01.07.07
15	do	Rupasingh D/o Madhusudan		Chhruni	Khunta	04.07.07
16	do	Manua Kandha @ Naik	48	Matiagad	Jashipur	04.07.07
17	do	Gopinath Maharana S/o Tahani		Baria	Karanjia	
18	do	Rebati Mahant W/o Rabindra		Kendumundi	Jharpokhoria	25.07.07
19	do	Smt. Kunduri Khatua W/o Jagabandhu		Balasha	Karanjia	12.07.07
20	do	Govinda Murmu S/o late Ramesh		Rajabaga	Udala	14.07.07
21	do	Kalpana Behera W/o Jages Behera	28	Dimgadia	Udala	30.05.07
22	do	Laba Tudu S/o Jagannath		Kendumundi	Tungasole	
23	do	Debi Singh D/o Babulu		Bhugudakata	Baripada	
24	do	Rajendra Majhi S/o Panda		Badakhuntasahi	Khaparadhol	20.09.07
25	do	Tanuja Naik D/o Surendra		Kalabadia	Bangiriposhi	04.09.07
26	do	Dasarathi Mahant S/o Sukadev		Nuagaon	Thakurmunda	20.04.07
27	do	Rasai Singh Gilua S/o Kaira		Gourachandrapur	Sarat	24.05.07
28	do	Sania Singh S/o Hari Singh		Raipadasamil	Khunta	21.05.07
1	Nawarangpur	Samar Bairagi S/o Amulya	45	Sukigaon	Umerkote	11.04.07
2	do	Tikam Bag S/o late Sarama	30	Haladi		30.04.07
3	do	Jagannath Bhatru S/o Mangla	65	Badornosigam	Kodiana	30.04.07
4	do	Pitama Bisoi S/o Sahuram	8	Nuagada	Umerkote	31.05.07
5	do	Premalal Goud S/o Kasturam	14	Deobharandi	Raighar	31.05.07
6	do	Lachana Paika S/o Raghunath	28	Gumidiora	Nawarangpur	01.06.07
7	do	Rupdhar Amanat S/o Laba	23	Ekamba	Nawarangpur	07.06.07

8	do	Laxmidhar Bhatra S/o Chaitan	35	Duragaom	Kodinga	10.06.07
9	do	Banita Bhatra D/o Dama	19	Khuntuda	Dabugaon	17.06.07
10	do	Ramlal Mali S/o Mohan	18	Parua	Umerkote	26.09.07
11	do	Sampath Majhi S/o Dinu		Semla	Kodinga	14.04.07
1	Nayagarh	Lily Behera D/o Prahallad	15	Arkhapali	Fategarh	12.05.07
2	do	Chaitanay Behera S/o Chakradhar		Rakesia	Khandapara	07.05.07
3	do	Banambar Nayak	40	Nilakanth Prasad	Fategarh	12.06.07
4	do	Rabindra Kumar Rout S/o late Khalewar		Kantilo Sanil	Panchusahu Patna	21.06.07
5	do	Banka Majhi S/o Kasinath	65	Banuasahi	Nuagaon	17.09.07
6	do	Bijuli Swain S/o Paramananda	50	Gudupangi	Nayagarh	17.09.07
7	do	Bipin Kumar Behera S/o Biswanath		Gohinapada	Fategarh	27.08.07
8	do	Purusottam Behera S/o Banchha	55	Maichheli	Nuagaon	06.08.07
9	do	Ranjan Kumar Dash S/o Prasanna	24	Maradabadi	Fategarh	13.02.07
1	Nuapada	Bhagaban Sabar S/o Braja Sabar		Kendetora	Komna	07.08.07
2	do	Urmila Rana W/o Shankar		Chindaguda	Khariar	04.0.07
3	do	Phula Majhi W/o Gorekh		Kulingamal	Boden	05.09.07
4	do	Hira Majhi W/o Banbasi	30	Bhela	Komna	31.08.07
5	do	Premlal Majhi S/o Dasarath	18	Jhalkusum	Komna	31.08.07
1	Puri	Prasanna Baliarshingh S/o Arta	31	Gangapurpatna	Ghonodia	04.09.07
2	do	Padmalav Mallik S/o Gajala	24	Chhaitana	Puri	04.0.07
3	do	Krushnachanda Sahoo S/o Babaji	30	Gunta Pilipih	Pipili	04.0.07
4	do	Natha behera S/o Ghana		Tarakora	Konark	04.0.07
5	do	Sarat Bhoi S/o Shyam	45	Kathuamadi	Brahmagiri	04.0.07
1	Rayagada	Mita Hial S/o Laxman	10	Badaharjansahi	Bisumcuttack	18.04.07
2	do	Krushnawadaka S/o Sambharu	32	Badalima	Bisumcuttack	18.04.07
3	do	Dumi Majhi S/o Sukru Majhi	22	Kumbharasila	Kasipur	03.05.07
4	do	Krutibas Majhi S/o Laxman Majhi	28	Saringiguda	Kasipur	29.05.07
5	do	Rama Sabar S/o Badei	60	Ambabadi	Gunupur	17.09.07
6	do	Lachhi Majhi S/o Majhi	22	Jhadabadmali	Kashipur	04.09.07
7	do	Biswambar Sabar S/o Jaya	65	Jagapadav	Cuttack	09.09.07
8	do	Muna Gouda S/o Gopal	20	Panganapadar	Gunupur	07.10.07
1	Sambalpur	Justin Suman Hasda S/o Phuljames	11	Kantibahal	Charmal	16.04.07
2	do	Pabitra Sandha S/o Natabara	50	Mikitimal	Kuchinda	30.04.07
3	do	Jagadish Bag S/o Prahallad	14	Kuntubahal	Kuchinda	30.04.07
4	do	Meghukisan S/o Nilambar	13	Phalsachuan	Mahalpal	12.05.07
5	do	Bhisma Sankar Naik S/o Tularam	32	Kachhaipani	Govindpur	23.06.07
6	do	Mahadev Nag S/o Shyamsundar		Khuntapali	Sasan	20.07.07
7	do	Mita Banhur @ Sasmita D/o		Jhankarpali	Charmal	26.08.07

		Bhagarathi				
8	do	Rajan Bhoi s/o Kalia		Mundhanpali	Jamankina	30.09.07
9	do	Rasanta Bagar S/o late Lataban	24	Barampara	Burla	20.09.07
1	Subarnapur	Sadanada Mesua S/o Ghumda		Piteipali		13.06.07
2	do	Lalji Sa		Banjipali		27.06.07
3	do	Puspanjali padhi, W/o Padmalochan		Duleswar		20.09.07
4	do	Purandar Bhoi		Siripura		03.10.07
1	Sundergarh	Birsa Minz S/o Gangu		Phalsakani	Rajgangpur	19.04.07
2	do	Chandra Kanti Barik W/o Tikeswar	26	Allapaku	Kingirkela	10.06.07
3	do	Manoj Kumar Keshari S/o Susarma	24	Sakaraposh	Bargon	13.06.07
4	do	Binod Beck S/o late Conrnlius		Khampar	Talsar	09.06.07
5	do	Dinesh Kairi S/o Amin	15	Donia	Hatibari	19.06.07
6	do	Rajesh Kairi S/o Pusa	27	Donia	Hatibari	19.06.07
7	do	Benjamin Bage S/o Jolen	15	Donia	Hatibari	19.06.07
8	do	Madu Lakra S/o Fagu	19	Ranitia	Kutra	19.07.07
9	do	Trinath Kuar S/o Ujalsingh		Chileimunda	Hemgiri	04.07.07
10	do	Christina Soreng W/o Julias	85	Ratabasa	Kutra	17.06.07
11	do	Euta Lohar S/o Jayaram		Sunaparbat		24.08.07
12	do	Rohit Lohar S/o Nanda		Sunaparbat		24.08.07
13	do	Sujanta Naik S/o Sakamra	14	Latdega	Tolsara	19.09.07
14	do	Pradeep Majhi S/o Dillip Majhi	15	Samelimunda	Sundergarh	13.09.07
15	do	Asmita Dang W/o Walter	24	Lodasara	Biramitrapur	26.09.07

Hailstorm

149 villages of 12 districts were affected due to hailstorms and whirlwinds during the year 2007-08. Rs.196.95 lakh have been provided to the Collectors of Angul, Bargarh, Subarnapur, Bhadrak, Jajpur, Kandhamal, Khurda, Mayurbhanj, Nayagarh, Puri, Rayagada and Malkangiri districts, out of CRF for disbursement of House Building Assistance, damaged due to these hailstorms.

The district wise details are at *Table mentioned below:-*

Hail Storm / Whirlwind / Cyclone wind / Tornado (2007-08)

Sl. No.	Districts	Date of Occurrence		No. of Blocks affected	No. of GPs affected	No. of villages affected	Population affected	Casualty	
								Human	Cattle
1	2	3		5	6	7	8	9	10
1	Angul	20.05.07, 08.06.07		1	9	24			
2	Bargarh	08.05.07 & 14.05.07		4	15	34		-	-
3	Subarnapur	14.05.07		2	12	22			
4	Bhadrak	17.04.07		1	1	1			
5	Jajpur	05.08.07		1	1	1		1	
6	Kandhamal	03.05.07 to 06.05.07		3	1	19	94		2
		1st week of June'07		4		17	36		
7	Khurda	27.04.07		1	1	1			
		20.02.08						1	
8	Mayurbhanj	13.04.07, 08.04.07, 08.05.07 & 09.04.07		3	6	18			
9	Nayagarh	21.05.07		1	1	1			
		03.06.07		2	3	7		1	
10	Puri	18.05.07		1	1	1		2	
11	Rayagada	April, May'07, 03.05.07, 07.05.07, 12.05.07, 17.05.07 & 08.05.07		2		1			
12	Malkangiri	26.05.07		1	1	1			
13	Khurda	20.02.08		1	1	1		1	
	Total			28	53	149	130	6	2

Sl. No.	Districts	No. of House damaged				Crop damage more than 50% (in hect.)	Relief Assistance Provided			
		Fully	Severely	Margi-nally	Total		House Building Assistance	For repair / restoration of public utilities	For input subsidy on crop loss	Total amount released
1	2	11	12	13	14	15	16	17	18	19
1	Angul			94	94		47000			47000
2	Bargarh	4	5	569	578	2629.8	669200		17400000	18069200
3	Subarnapur					1722.2				
4	Bhadrak		1		1		2000			2000
5	Jajpur	50	149	465	664		383400			393400
6	Kandhamal		10	49	59		51200			51200
		3	21	12	36		52800			52800
7	Khurda			3	3		3600			3600
										100000
8	Mayurbhanj		7	263	270		85900			85900
9	Nayagarh			9	9		7200			7200
					16		12800			62800
10	Puri									20000
11	Rayagada	8	277	340	625		659600			659600
12	Malkangiri			51	51		40800			40800
13	Khurda					20.80				100000
	Total	65	470	1855	2406	4372.80	2015500	0	17400000	19695500

Heat Wave/ Drinking Water Problem

Death due to heat wave or Sunstroke is a disaster caused by ones exposure to environmental heat and humidity. During the year 2007-08, heat wave conditions prevailed in almost all the districts of the State. The issue for

inclusion of heat wave in the list of Natural Calamities has been repeatedly raised by the State Government before the Government of India and Finance Commission which is under consideration. So the ex-gratia amount @ of Rs.10, 000/- are now being sanctioned from the CMRF to the bereaved families of the sunstroke victims.

The district wise number of human casualties due to sunstroke for the year 2007-08 is given below.

Death due to Sunstroke

Sl.	Name of the District	No. of persons died
1	Angul	1
2	Balasore	1
3	Bargarh	1
4	Bhadrak	3
5	Bolangir	2
6	Cuttack	6
7	Dhenkanal	7
8	Ganjam	8
9	Jagatsinghapur	1
10	Jharsuguda	1
11	Kandhamal	1
12	Kendrapara	2
13	Khordha	2
14	Koraput	1
15	Nayagarh	2
16	Nuapara	2
17	Sambalpur	1
18	Sundergarh	5
Total		47

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

ground water level. Water tankers were deployed in scarcity pockets. An amount of Rs.1128.43 lakh out of CRF was released in favour of various Departments in order to combat drinking water scarcity problem. The Department / District-wise release of funds is given below.

Name of the Department / District	Amount released (in lakh)
R.D. Department	613.73
H & U.D. Department	505.99
Collector Kalahandi	8.68
Total	1128.43

Calamity Relief Fund (CRF)

Expenditure on account of different calamity mitigation measures are met out of CRF at the State level. As per the procedures and norms prescribed by Govt. of India, a committee headed by the Chief Secretary of the State administers the fund. The fund is constituted by the sharing of Central and State Govt. at the ratio of 75:25.

The position of both CRF and NCCF is shown at *Table below*

FUNDS POSITION

2007-08

(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	7.02	241.17	129.66	377.85	375.08	2.77
NCCF	1.41	-	4.05	5.46	5.46	-
Total	8.43	241.17	133.71	383.31	380.54	2.77

**RELEASE OF FUNDS
2007-08**

(Rs. in Crore)

Category of Funds	Receipt	OB & Unspent augmented	Total	Funds Released			Balance
				District	Department	Total	
1	2	3	4	5	6	7	8
CRF	241.17	136.68	377.85	42.69	332.39	375.08	2.77
NCCF	-	5.46	5.46	-	5.46	5.46	-
Total	241.17	142.14	383.31	42.69	337.85	380.54	2.77

UTILIZATION CERTIFICATE

Utilization Certificate amounting to Rs.260.82 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 2007-08.

[Rs. in lakh]

	<u>District</u>	<u>Department</u>	<u>Total</u>
CRF	2780.02	20799.60	23579.62
NCCF	72.65	2429.62	2502.27
Grand Total	2852.67	23229.22	26081.89

(1) An amount of Rs.2775.21 crore has been received from 1999-2000 to 2007-08 under CRF and NCFR / NCCF. Out of which utilization certificate to the tune of Rs.2145.10 crore has already been furnished to AG, Orissa till 31.03.2008. The table below has shown the details.

[Rs in crore]

Fund	Receipt 1999-2000 to 2007-08	UC Submitted 1999-2000 to 2007-08	Percentage
CRF	1592.73	1033.75	64.90
NCCF	1182.48	1111.35	93.98
Total	2775.21	2145.10	77.29

- (2) The submission of UC in respect of allotment provided to different districts and department from 1999-2000 to 2007-08 till 31.03.08 is shown below.

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	29840.37	29242.45	9249.63	8351.03	4545.52	3753.56
Department	18393.59	15621.77	22942.40	22539.88	21655.20	21323.06
Total	48233.96	44864.22	32192.03	30890.91	26200.72	25076.62

Contd..

Agency	2002-03		2003-04		2004-05	
	Allotment	UC Submitted	Allotment	UC Submitted	Allotment	UC Submitted
District	6711.04	5833.53	7396.50	5509.59	685.87	454.83
Department	13588.77	12891.68	19977.97	18616.62	25726.59	24268.86
Total	20299.81	18725.21	27374.47	24126.21	26412.46	24723.69

Contd..

Agency	2005-06		2006-07		2007-08	
	Allotment	UC Submitted	Allotment	UC Submitted	Allotment	UC Submitted
District	3528.29	1792.74	5545.44	3528.29	4268.91	104.55
Department	20167.75	17059.33	39323.35	20167.75	33785.84	600.00
Total	23696.04	18852.07	44868.79	23696.04	38054.75	704.55

Disaster Management Initiatives

Communication:

Keeping in view vital role of the communication system for timely dissemination of warning of upcoming disaster and monitoring the post disaster interventions, measures have been taken to place failsafe communication systems to be available during and after a disaster in addition to the existing means of communications.

1. A Dedicated Civil VHF Network has been set up in the State with 414 base stations covering all District and Block Headquarters, some Tahasils, GPs, ODRAF units, and other locations. Besides, 36 mobile stations have been installed in the vehicles of the Collectors and other officers at the State level. 140 VHF handsets (Walkie-Talkie) have also been provided to the State & District Emergency Operation Centres, ODRAF units.
2. 19 Portable Mini-M Inmarsat Satellite Phones have been procured and placed with 17 District Collectors and one each in OSDMA and the Control Room of Revenue & Disaster Management Department. Another Mini-M Inmarsat Terminal with Provident Antenna (pole mounted) has been installed in the State Emergency Operations Centre. Apart from these, two such satellite phones with voyager antenna have been installed in two vehicles of OSDMA. These phones, which operate directly through satellite, can provide failsafe communication in any eventuality. 13 more satellite phones are being procured for providing to the remaining districts.
3. Toll Free Telephones with Numbers 1077 And 1070 have been installed in District Emergency Operations Centres and State Emergency Operations Centre respectively for communication of disaster related messages by the public.
4. Five batches of Amateur (HAM) Radio Training programmes were organized during the year 2007-08 in which 291 volunteers and

ODRAF & Fire Services personnel were trained with the help of technical institution National Institute of Amateur Radio, Hyderabad.

5. **Internet connectivity** has been provided to the State and District Emergency Operations Centres.
6. A user node under the satellite based **Disaster Management Support (DMS) Network** established by Ministry of Home Affairs, Government of India has been set up in the State Emergency Operations Centre. This communication network has six primary nodes in the national Emergency Operations Centre at Ministry of Home Affairs (MHA), National Remote Sensing Agency (NASA), India Meteorological Department (IMD), Central Water Commission (CWC), National Institute of Disaster Management (NIDM) and Prime Minister's Office (PMO) and 22 user nodes in the State Emergency Operations Centres (EOC) of 22 disaster-prone States and Union Territories. The network provides data, audio and video connectivity to the State EOC with the remaining nodes at the above mentioned offices.
7. **VSAT System (Radio Frequency Link) under the GRAMSAT Pilot Project**, Orissa has been provided to the State Emergency Operations Centre, Bhubaneswar which has connectivity with 314 blocks and 30 DRDAs in the State.
8. **Mobile phones** have been provided to the officers of State Emergency Operations Centre and 16 District Emergency Operations Centres.

Strengthening Emergency Operations Centres:

Emergency Operation Centres (EOCs) at the State level and in 30 districts have been improved with provision of computer, fax, other communication and essential emergency equipment like life buoy, life jacket, mega phone, siren, inflatable tower light, power saw, first aid box, etc. Construction of multi-hazard resistant buildings for 16 District EOCs (Angul, Balasore, Bhadrak, Cuttack, Ganjam, Jagatsinghpur, Jajpur, Kendrapara, Keonjhar, Khurda, Koraput, Mayurbhanj, Nuapada, Puri, Rayagada, Sambalpur)

and the State EOC has been completed under the Gol-UNDP Disaster Risk Management programme. Construction of such buildings in the remaining 14 districts taken up under CRF is under progress.

The EOCs at the three Revenue Divisional headquarters have been strengthened and inflatable tower light and power saw have been provided to the Sub-divisional EOCs of independent sub-divisions.

Emergency equipment like life buoy, life jacket, mega phone, siren, and inflatable tower light, power saw, first aid box, etc. have also provided to all the multi-purpose cyclone shelters.

School Buildings-cum-Shelters:

Apart from the large multi-purpose cyclone shelters constructed within 10 km band along the coast, 8890 primary school buildings and 1150 high school buildings have been constructed in the cyclone affected areas with funds made available from various sources such as DFID, Operation Black Board, Prime Minister's National Relief Fund, Chief Minister's Relief Fund, MPLADS funds, other State Governments, other donors and NGOs). These buildings will be also used as shelter during cyclone, flood and other emergencies.

Observance of Disaster Preparedness Day-2007:

29th of October 2007 was observed as Orissa Disaster Preparedness Day (Biparjyaya Prastuti Divas) and National Day for Disaster Reduction throughout the State. Various activities were undertaken from village to State level to enhance the awareness on the need for greater preparedness to reduce the impact of disasters. Hon'ble Chief Minister, Orissa, Hon'ble Minister, Revenue & Disaster Management and Hon'ble Minister, Women & CD graced the function organized at the State level and experts from NRSA, INCOIS, IIT, Madras, IMD and Geo-Hazard International gave technical presentations. Students and teachers from the coastal districts participated in the State level function. Persons who had great contribution in management of the disasters were felicitated during the occasion. Competitions were also organised among the village level volunteers on search & Rescue and First Aid techniques and prizes were awarded. The activities organised at the State level on the occasion

included cycle rallies, signature campaign, demonstration of Search & Rescue technique by ODRAF, exhibition of materials on disaster management, general meeting, etc. The theme for the observance of the year was "Preparedness for Earthquake & Tsunami Disasters" .

Coordination with UN Agencies and NGOs

Constant coordination was maintained with UN agencies and NGOs to get their support in case of any eventuality. Significant help in flood response especially temporary shelter materials like tent and polythene was mobilised from the NGO sector for the people affected by the unprecedented floods during the year. The NGOs also played crucial role in raising awareness among the people on disaster preparedness. Meeting of State Level NGO Coordination Committee was organised regularly.

Miscellaneous

Management Information System

Management Information System

Based on the verdict and observation of Supreme Court derived out of Writ Petition (Civil) No.196/2001, the Management Information System for Tracking Hunger and Malnutrition came into force from 2nd fortnight of January 2003 in the State. It is the prime and foremost duty of State Government to prevent death due to starvation or malnutrition and ensure food security to the needy people. Accordingly, Government of Orissa introduced a suitable policy for regular monitoring of malnutrition and hunger for ensuring Food security etc. with emphasis on following categories.

1. Employment Generation Work
2. Food for Work
3. For vulnerable population
4. In scarcity pockets

5. In epidemic prone areas
6. Of Individual with prolonged illness
7. For Mothers and children with malnutrition
8. Social Security Net

Keeping in view the guidelines and format issued on these aspects, district authorities of the State are submitting required information collecting from grass-root level (G.P.level) twice in a month i.e. at the end of each fortnight to Special Relief Commissioner, Orissa. On receipt of the information from the Collectors of the District, compilation and analysis work are done at SRC level and evaluation of the data is made as per the prescribed indicators. As monitoring authority, advice and guidance are given to the concerned Departments of Government and all Collectors for making necessary interventions on the feedbacks from the field and submit regular compliance thereof. Thus, Management Information System has proved its utility for effective management of disaster.

Conclusion

Orissa is prone to multiple natural calamities. Flood, cyclone, drought, heatwave, lightning, landslide and even tsunami are as though regular visitors with unmatching fury and a trial of catastrophe. Many a time nature turns nasty where no one is safe for the forces involved are colossal and widespread. The natural calamities are stories of nightmare mingled with astonishing instances of human resilience and courage, of compassion and solidarity. Sometimes the devastation is worse than our worst fears. Needless to say the recurring disasters contribute to slow growth and delayed development.
