

CHAPTER - II

Flood-2004

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

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

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

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

Rainfall in Catchments (5/10/04)

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

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

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

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

Rainfall during 1st week of October-2004.

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

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

[Table-2]

Impact

Districts Affected

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

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

Loss of life and properties

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

Impact of Flood-2004

Affected

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

[Table-3]

Damage

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

[Table-4]

a) **Human Population**

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

[Table-4.1]

b) **Damage to Infrastructure**

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

Roads

Damage to infrastructure

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

[Table-5]

c) **Water Supply**

Gajapati District

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

f) **Loss Assessment**

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

Loss Assessment due to Flood-04

(Rs. in lakh)

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

[Table-6]

FLOOD MANAGEMENT

1. Rescue

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

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

2. Emergent Relief

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

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

3. Safe Drinking Water

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

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

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

4. Health & Sanitation

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

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

5. Animal Care

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

6. Ex-gratia Assistance

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

7. House Building Assistance

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

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