



Government of Orissa

**MEMORANDUM
ON
NATURAL CALAMITIES
2009-10**

**Special Relief Commissioner
Revenue and Disaster Management Department**

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Chapter - I

Introduction

Climate change has emerged as one of the most important issues confronting humanity. The change is visible in terms of unusual weather phenomena like increase in the heat pattern, deviations in temperature, shifting of seasons and abnormality in rainfall. This change, it is apprehended, may result in serious ecological problems with damaging impacts on vegetation, flora and fauna and overall ecological balance of the earth. Scientists believe this is mostly due to global warming. Global warming is the increase in the average temperature of the earth's near surface air and oceans since the mid-20th century. The average global surface temperature has arisen by about 0.6° c since the last 19th century. Over the past 25 years, temperature has gone up by about 0.3° c.

The inter-governmental panel on climate change (IPCC) concludes that most of the observed temperature increase since the middle of the 20th century was caused by increasing concentrations of green house gases resulting from human activity such as fossil fuel burning and deforestation. People all over the world suffer from the disastrous effects of summer heat. Rise in temperature has affected agriculture and led to water scarcity in some areas. It has caused more extreme weather in the form of heat waves, severe air pollution events and tropical storms, more floods and droughts causing crops failure and imposing immediate and significant costs. It has increased the instances of many human, plant and animal diseases.

As far as India is concerned, the Asian mega deltas, such as Ganga-Brahmaputra delta and Mahanadi delta, are at risk because of large populations and high exposure to sea-level rise, storm surge and river flooding. Also, the Himalayan glaciers can melt leading to flooding, rock avalanches, disruption of water sources. In tropical areas, crop yield is projected to decrease. The UN Copenhagen summit in December 2009 is a key moment for our future. This summit, which is currently in progress, is expected to thrash out a successor to the Kyoto protocol.

In the backdrop of this Climatic variation, the strategy of Disaster management has changed. The classical method of Disaster Management has now become obsolete. The focus of Disaster Management has now shifted from relief and rehabilitation measures to planning, preparedness and prevention.

The State of Orissa is experiencing one calamity or another almost every year. The table below indicates how the State has been devastated by various natural calamities in the last 15 successive years.

Year	Calamity	Districts Affected
1995	Floods & Cyclone	23
1996	Drought	28
1997	Drought	16
1998	Drought, Heat wave	26
1999	Super Cyclone	14
2000	Drought	29
2001	Floods	24
2002	Drought	29
2003	Floods	23
2004	Floods	05
2005	Floods	15
2006	Floods	27
2007	Floods (July)	12
2007	Floods (Aug. & Sept.)	15
2008	Floods (June & September)	21
2009	Tornado / Hailstorm	01
	Flood	17
	Drought / Pest Attack	15

Chapter - II

Occurrence of Natural Calamities during 2009-10

In the current financial year 2009-10, the State has experienced following natural calamities:

- I) Tornado/Hailstorm
- II) Heat-wave
- III) Flood
- IV) Drought
- V) Pest Attack

Due to occurrence of these calamities in the current year, the expenditures on relief measures are bound to increase considerably. In view of the mounting expenditures, the release of adequate Central Assistance has become extremely necessary. The Central Government has already been requested by the Government of Orissa to restore the corpus of CRF for the current year. Commensurate assistance from the Central Government at this critical juncture would be of immense help to the State Government to clear up the liabilities for floods 2008 and 2009, tornado and hailstorm 2009, and to meet the impending drought and pest attack situations.

This Memorandum presents a realistic picture of the occurrence of natural calamities in the State of Orissa, the steps already taken by the State government in facing these calamities including the expenditure incurred and the likely expenditure that the Government would have to undertake for giving relief to people.

Tornado / Hailstorm

A severe tornado accompanied with wind speed of about 250 kmph, thunderstorm, rainfall and hailstorm affected Rajakanika block of Kendrapara District of Orissa in the late afternoon of 31st March 2009 causing massive damage to life and property. 16 precious human lives were lost in the span of a mere half an hour of nature's fury. The India Meteorological Department (IMD) has assessed the phenomenon as one of the six worst tornadoes to have hit the country ever.



The special features of this tornado/hailstorm are as follows.

1. It was embedded in a thunder squall line.
2. According to Doppler weather Radar (DWR), Kolkata, the convective cloud cluster moved from north- northwest to south- southeast during its genesis, growth and maturation stage like a Nor'wester.
3. The maximum surface wind speed was about 250 kmph.
4. The convection developed after 1430 hrs IST and dissipated over Sea by 1730 hrs IST with a life period of less than three hours.
5. The tornado survived for about 10 minutes, hitting ground at 1640 hrs IST, according to eyewitnesses.

A well marked trough of low pressure area with associated upper air trough in lower levels from Jharkhand to Rayalsheema across interior Orissa coupled with strong pressure gradient towards the east and upper tropospheric divergence over the region at 0530 hours IST of 31st March, 2009 was the synoptic system leading to the tornado in the afternoon.

The origin of Tornado was Ostia village of Rajkanika Panchayat of Rajkanika Block and it touched down the village according to eyewitness at 1640 hours of 31st March 2009. It then passed over Barada, Badatala, Asasa, Baghabuda, Govindpur, Kantapada (Rajkanika Block Headquarters), Ganja, Achutapur, Mukundpur, Manaidiha, Dasabhgaria, Mangalpur and Dalikainda village. The most affected area is of 0.6 km width and 6 km length covering the above villages out of which Baghabuda village was the most severely affected one.

The fury of Tornado can be well imagined from the following instances of significant damages.

- i. A loaded tractor was broken into two pieces and flown up to 50 feet and dashed with a big tree. A dumper vehicle (JCB) was also overturned.
- ii. All thatched and asbestos houses were smashed away.
- iii. Some RCC roofs of non-structural concrete buildings were flown away and fell at a distance of 30 feet to 40 feet away.
- iv. Some of those fell at a distance of 70 feet away along with fitted electric fan upside down.
- v. Fishes weighing 1-2 kg were scattered here and there in villages which were thrown away by it from the nearby pond.

The Ministry of Home affairs was intimated about the occurrence on the same day. The State Government immediately responded to the killer twister. The officials of Special Relief Commissioner and Orissa State Disaster Management Authority (OSDMA) were deployed to Rajkanika. The ORDAF unit stationed at Cuttack equipped with inflatable tower lights, cutters and other tools meant for search and rescue was mobilized and pressed into service. The roads were cleared up by cutting thousands of uprooted trees in the same night itself by Orissa Disaster Rapid Action Force (ODRAF) unit with inflatable tower lights and tree cutters. By morning of 1st April, 2009, all arterial roads of affected villages were cleared up and restored for normal traffic.

The injured persons were, in the same night, shifted to different hospitals of Kendrapara District and severely injured persons were shifted to SCB, Medical College, Cuttack for treatment. Adequate polythene sheets were kept stock well in advance in the District as buffer-stock. Tents were mobilized from the State level

and pitched there for use as temporary shelter. Realizing the severity of the disaster and vulnerability, emergent relief for 15 days was provided.

In a record time, as per the norms of Calamity Relief Fund, all entitlements of the affected persons such as ex-gratia assistance to the next of kins of the deceased, house building assistance and emergent relief were provided. Due to massive response activities undertaken at the State level, such a calamity of high magnitude could be responded immediately.

Further, repair/restoration of immediate nature of the damaged infrastructure in eligible sectors worth **Rs.765.87 lakh** has been completed.

The incident occurred on 31st March, 2009, but all the relief and rehabilitation measures have been made out of the opening balance in CRF Account of the year 2009-10 amounting to Rs.4.349 crore and State's share of CRF Account for the year 2009-10. The following amount out of CRF has already been sanctioned for management of this nature's fury:

Sl.	Item	Amount Released (Rs. in lakh)
1	Immediate Repair / Restoration of damaged infrastructures	840.50
2	Assistance for repair/restoration of damaged houses	65.79
3	GR in kind	8.14
4	Ex-gratia payment to the families of the deceased	16.00
5	Ex-gratia payment for loss of a limb or eyes	4.68
6	Cash in lieu of clothing	13.26
7	Cash in lieu of utensil	13.26
8	Replacement of draught animals, milch animal	11.55
Total		973.18

Format-II

Extent of Damage due to Natural Calamities

State : Orissa

Nature and period of natural calamity – *Hailstorm / Tornado on 31.03.2009*

Sl.	Item	Details
1	Total number of Districts in the State	30
2	No. and Names of the Districts affected	1
3	Number of Villages affected	12
4	Population affected	10000
5	Total land area affected (in ha)	482
6	Crop Area affected (in ha)	
	(i) Total cropped area affected	389
	(ii) Estimated loss to crops (Rs. in lakh)	26.93
	(iii) Area where cropped damage was more than 50%	134.66 ha.
7	Percentage of area held by SMF	
	(i) In the state as a whole	-
	(ii) In the affected districts	-
8	Houses damaged	
	(a) No. of houses damaged	1425
	(i) Fully damaged pucca houses	1
	(ii) Fully damaged kutcha houses	403
	(iii) Severely damaged pucca houses	118
	(iv) Severely damaged kutcha houses	506
	(v) Partially damaged houses (pucca+kutcha)	251
	(vi) No. of huts damaged	146
	(b) Estimated value of damage to houses (Rs. in lakh)	142.32
9	No. of Human lives lost	16
10	No. of persons with grievous injuries	15
11	No. of persons with minor injuries	127
12	Animal lost	
	(a) No. of big animals lost	48
	(b) No. of small animals lost	464
	(c) No. of poultry (birds) lost	91
13	Damage to public properties :	State road damage – 4 Km District road damage – 5 Km Village road damage – 2 Km Culvert damage – 5 Km School building damage – 4
	(a) In physical terms (sector-wise details should be given – e.g. length of State roads damaged, length of district roads damaged, length of village roads damaged, No. of bridges damaged, No. of culverts damaged, No. of school buildings damaged etc.	
	(b) Estimated value of the damage to public properties	Rs.24.17 crore
14	Estimated total damage to houses, crops and public properties.	Rs.110.24 crore

Format-VIII

**Format for working out the requirements under the head of repair of damaged infrastructure of immediate nature
(Hailstorm / Tornado-2009)**

(Rs. in lakh)

Sector	Damage in physical terms	Requirement of funds for repair of immediate nature	Out of (3), amount available from annual maintenance budget	Out of (3), amount available from related schemes/ programs/ other sources	Out of (3), amount proposed to be met from CRF/NCCF in accordance with list of works indicated in the Appendix to the revised items and norms
1	2	3	4	5	6
Roads / Bridges / Building	PWD Roads	57 Nos. 3522.06 mtr.	Nil	Nil	31.62
	Rural Works (Building)	70 Nos.	Nil	Nil	644.25
	Saline embankment divisions (Buildings and other structure)	6 Nos.	Nil	Nil	16.50
	DPC, SSA Kendrapara Building	4 Nos.	Nil	Nil	3.50
	Panchayati Raj Buildings	33 Nos.	Nil	Nil	70.00
Power	Irrigation Buildings	3 Nos.	Nil	Nil	1.00
	33 KV line 11 KV line Substations		Nil	Nil	73.63
Total		Nil	Nil	840.50	840.50

Heat-wave

In Orissa, the conditions of heat-wave had existed in the past, mainly in the western Districts of the State. In the last eleven years, the temperature of the rest of the State during summer months has steadily risen leading to heat-strokes, death and other suffering to people. In the summer of 1998 as many as 2,042 people died in the State due to heatstroke.

Heat-wave is defined as a condition of rise in atmospheric temperature that leads to physiological stress, which sometimes can claim human life.

The death toll as mentioned below due to heat-wave year-wise since 1998 gives a clear picture regarding the calamity.

Year	Human Casualty
1998	2042
1999	91
2000	29
2001	25
2002	41
2003	67
2004	43
2005	236
2006	22
2007	44
2008	68
2009	83

Poor people, farmers and workers mostly suffer from sunstroke and lose their lives. State Government has been representing both to Government of India as well as Finance Commission to include heat-wave as a notified natural calamity, but till date, it has not been considered. In fact, the State Government after the large number of deaths in 1998 started making concerted efforts to minimise the death toll and related suffering of the people on account of heat-wave conditions. The main activities to minimise the death toll and other sufferings because of heat-wave are through sustained awareness campaigns in the print & electronic media, prevention and response activities.

In the current year the conditions of heat-wave existed in the State in the months of April, May and June. The Atmospheric Maximum Temperature for the months from March to June is given in **Annexure-A** for better appreciation of the situation.

The impact of the heat-wave in the current year can be judged from the fact that there was early closure and late opening of schools. A number of preparedness/ preventive activities were undertaken by the State Government for management of heat-wave situation, 2009, some of which are given below:

1. On 6th March, 2009 all collectors were requested to take all precautionary measures for mitigating the heat-wave situation.
2. A meeting was convened under the chairmanship of Hon'ble Chief Minister, Orissa on 2nd March 2009 and 24th April 2009 to review the preparedness activities of all concerned Departments for mitigating the drinking water problem in water scarcity areas of the State.
3. All Collectors were requested to hold the District level meeting on heat-wave and take immediate necessary measures to tackle the heat-wave conditions. Necessary actions as per the proceedings of these District level meetings on heat-wave were undertaken.
4. IEC materials relating to heat-wave were prepared and published by OSDMA for general awareness of the public. Doordarshan and other Television channels were requested to broadcast programmes for creating awareness among people.
5. Action plan for mitigating water scarcity problems in different towns and rural areas, where acute scarcity of drinking water is felt was prepared. Adequate water tankers were deployed for supply of drinking water and defunct Tube Wells were replaced / repaired.
6. Essential Medicines, Saline, ORS packets were stored in the District headquarters Hospitals, Community Health Centres and Primary Health Centres. Separate beds were earmarked for treatment heat-stroke patients in the District headquarters hospitals.
7. The working hour for daily labourers was re-scheduled i.e. from 6 a.m. to 11 a.m. and 3 pm to 6 pm Provision of drinking water was made at the works site.
8. Plying of buses during peak hour i.e. between 11.00 AM to 3.00 PM was restricted.
9. Power distributing companies were instructed to ensure uninterrupted power supply during the summer.

10. The time table of the Schools was re-scheduled from 6.30AM to 10.30 AM. Provision of drinking water and first aid was made available at the examination centres. Tub wells inside the school campus were repaired to ensure uninterrupted drinking water supply.
11. Ex-gratia assistance to the next of the kins of the victims of the heat-wave has been provided out of Chief Minister Relief Fund @ Rs.10, 000/- each.
12. Seniors officers of OSDMA and Office of Special Relief Commissioner were deputed to different Districts to have an on the spot assessment of the situation and guide the District Administration in taking corrective measures.

Despite these measures of the State Government, the number of casualties due to Sunstroke this year has exceeded those of the preceding three years. The District-wise number of human casualties due to sunstroke of the year 2009 is given below.

Sl.	District	Death due to heatstroke
1	Angul	4
2	Balasore	4
3	Bargarh	4
4	Cuttack	3
5	Dhenkanal	8
6	Ganjam	9
7	Jagatsinghpur	5
8	Jaipur	4
9	Jharsuguda	1
10	Kandhamal	1
11	Kendrapara	1
12	Keonjhar	5
13	Khurda	18
14	Mayurbhanj	2
15	Nayagarh	4
16	Puri	2
17	Rayagada	1
18	Sambalpur	3
19	Sundargarh	4
Total		83

Since heat-wave has, so far, not been notified as a natural calamity, the State Government undertook all measures to tackle the situation out of its own fund.

Sl.	District	Blocks Affected	G.Ps Affected	Villages Affected	ULBs Affected	Wards Affected	Human Casualty	Area Sand Cast(Hec)
1	Kalahandi	08	175	743	02	40	01	379.61
2	Puri	01	01	01	-	-	02	-
3	Sundergarh	-	-	-	-	-	03	-
4	Koraput	05	18	29	-	-	03	-
5	Jajpur	01	05	14	-	-	-	-
6	Bhadrak	-	-	-	-	-	07	-
7	Cuttack	06	68	249	01	17	09	88.00
8	Khordha	02	05	06	-	-	-	-
9	Ganjam	05	34	108	02	15	09	1384.8
10	Balasore	07	61	318	1	-	01	-
11	Nayagarh	07	39	127	-	-	14	546.63
12	Keonjhar	-	-	-	1	03	04	-
13	Bolangir	07	107	495	-	-	-	-
14	Kandhamal	12	120	413	-	-	06	-
15	Kendrapara	03	22	52	01	06	-	-
16	Subarnapur	06	-	107	01	-	-	-
17	Mayurbhanj	04	15	44	01	03	-	-
Total		74	672	2706	10	84	59	2399.04

House Damages

13,547 houses were damaged due to flash flood and heavy-rain during 2009.

The detailed category of damaged houses are given in the table mentioned below.

District	House Damage				
	Fully	Severely	Partially	Hut	Total
Kalahandi	103	273	2529	--	2905
Puri	--	--	--	--	--
Sundergarh	--	--	--	--	--
Koraput	11	15	107	--	133
Jajpur	--	--	--	--	--
Bhadrak	--	--	--	--	--
Cuttack	12	54	345	03	414
Khordha	--	--	--	--	--
Ganjam	198	876	2325	76	3475
Balasore	02	08	120	14	144
Nayagarh	04	286	3297	--	3587
Keonjhar	11	11	--	--	22
Bolangir	13	--	2431	423	2867
Total	354	1523	11154	516	13547

Human Casualty

59 persons have lost their lives due to flash floods. The District-wise death tolls are given in the table mentioned below.

Sl.	District	No. of Human Casualties
1	Bhadrak	07
2	Cuttack	09
3	Ganjam	09
4	Kalahandi	01
5	Kandhamal	06
6	Keonjhar	04
7	Koraput	03
8	Nayagarh	14
9	Puri	02
10	Sundergarh	03
11	Balasore	01
Total		59

Sand Cast

Agricultural areas of 2399.04 hectare have been sandcast due to flash flood.

Loss to Public Utilities

Loss to public utilities due to impact of flash flood is enormous. There has been again extensive damage to rural roads, river embankments, bridges and other public infrastructures. The total loss to public utilities comes to Rs.483.02 crore.

Response

- ODRAF teams with power boats and emergency equipments were deployed in Nayagarh and Balasore Districts for search and rescue operation.
- 62,200 people were evacuated.
- 98 boats were deployed for relief and rescue operation.
- Emergent relief was sanctioned for a period of 7 days and 15 days for the marooned people of the flood affected areas of Nayagarh and Ganjam Districts respectively. 77 free kitchen centre were opened.
- Emergent Relief in shape of rice (1707.15 Qtl.), chuda (772.70 Qtl.) and gud (103.55 Qtl.) were distributed in the flood affected villages. In addition to that

dry food, candles, matchboxes, kerosene and other essential commodities were distributed.

- 48 MT of concentrated cattle feed were despatched through OMFED and distributed to the affected animals in the marooned areas.
- Funds to the tune of Rs.231.49 crore has been spent towards Flood-2009 mitigation measures.

It may be stated here that continuous calamity has undone a large part of the best developmental efforts of the State and has severely dented its economic foundation. It would not be possible to bring back the entire thing to pre-calamity condition without central assistance. Even immediate restoration requires a large sum. Due to paucity of funds in the CRF, immediate repair/restoration work to damaged public infrastructure could not be taken up. Hence, it is expected that this calamity will not be judged in isolation but assessed in the backdrop of its impact on the vast damages of the State during the last four years.

Assistance sought for-Flood 2009

Ex-gratia Payment to the families of deceased persons: [Para-1(a) of CRF Norms]

59 persons died due to floods in the State in 2009. The District-wise human casualty and amount disbursed as per revised CRF Norms for payment of ex-gratia assistance to the families of deceased persons are given in table below:

(Rs. in Lakh)

Sl.	District	No. of Death cases	Amount spent as per CRF Norms @ Rs.1.00 lakh per death case
1.	Bhadrak	07	7.00
2.	Cuttack	09	9.00
3.	Ganjam	09	9.00
4.	Kalahandi	01	1.00
5.	Kandhamal	06	6.00
6.	Keonjhar	04	4.00

7.	Koraput	03	3.00
8.	Nayagarh	14	14.00
9.	Puri	02	2.00
10.	Sundergarh	03	3.00
11.	Balasore	01	1.00
Total		59	59.00

Gratuitous Relief for families in dire need of immediate sustenance after a calamity: [Para-1 (f) of CRF Norms]

1.34 lakh persons who were in dire need of immediate sustenance after the floods were provided with Gratuitous Relief for 3 to 15 days @Rs.20/- per adult per day and @Rs.15/- per child per day. The total expenditure incurred towards providing gratuitous relief comes to **Rs 255.00 lakh**.

Assistance to Small and Marginal farmers

Cost of desilting of agricultural land: Subsidy for sand cast [Para-3(a) of CRF Norms]

2399.04 hectares of agriculture land have been sand cast due to this flood. An amount of **Rs.143.95lakh** is spent for removal of sand to make the land fit for agriculture purpose.

(Rs. in lakh)

Sl.	District	Total Area under sandcast (in Hect.)	Amount spent @ Rs.6000/- per hect.(Rs. in lakh)
1	Cuttack	88.00	5.28
2	Ganjam	1384.8	83.09
3	Kalahandi	379.61	22.78
4	Nayagarh	546.63	32.80
Total		2399.04	143.95

Provision of fodder / feed concentrate in the cattle camps: *[Para-7 (ii) of Revised CRF Norms]*

48 MT cattle feed has been provided to affected livestock @Rs.20 per day per large animal and Rs.10 per day per small animal. Expenditure has been incurred to the tune of **Rs.7.68 lakh** for the purpose.

Assistance for repair / restoration of damaged houses: *[Para-10 of revised CRF Norms]*

13547 houses have been damaged due to floods out of which 354 houses have been fully damaged and 1523 houses severely damaged. 11154 Houses have been partially damaged. This apart, 516 Huts have also been damaged. An amount of **Rs.251.14 lakh** is spent for providing assistance for repair / restoration of the damaged houses of affected people. The detail expenditure as per revised CRF Norms is given in the prescribed **Format-VI**

Repair / restoration of immediate nature of the damaged infrastructure in eligible sectors: - *[Para-18 of revised CRF Norms]*

A sum of **Rs.224.32 Crore** is required for repair/restoration of immediate nature of the damaged infrastructure in eligible sectors.

List of activities, which are of immediate nature, are given below.

i) Roads and bridges

PWD Roads

An amount of **Rs.28.27 Crore** is required for immediate repair and restoration of 129 breaches and 856 culverts in 2769.697 Kms of PWD roads damaged due to such floods. These roads used as important relief lifelines during natural calamities.

Rural Roads

Total 284 nos. of breaches occurred in Rural roads in the Districts affected by floods. An amount of **Rs. 43.46 crore** is required for immediate restoration of these roads. These roads are important for rescue and relief management.

Urban Roads

Road length of 128.37 km has been damaged in urban areas. Those roads are used to ferry relief materials from the towns to rural areas. The total requirement of funds for immediate repair of these roads comes to **Rs.30.99 crore**.

Panchayat Roads

1635.86 km of 1887 nos. of Panchayat roads have been damaged due to the floods. These roads are extensively used in rural areas for carrying relief materials during disaster. The total requirement of funds for immediate repair of these roads comes to **Rs.57.34 crore**.

ii) Irrigation

River and Canal Embankments

123 breaches occurred in river embankments of different rivers. Besides breaches, partial damage has been caused to 268 nos. of sites in river embankments. Similarly, 145 breaches occurred in different canal embankments. River and canal embankments are also used as roads by the public and administration for transport of relief materials. An amount of **Rs.37.81 crore** is required for immediate closure of breaches and repair of partial damaged sites.

Minor Irrigation

Rs.14.16 crore is required for immediate repair of 614 nos. of damaged Minor Irrigation Projects

Drainage Systems

Rs.7.29 crore is required for immediate removal of debris & vegetative materials etc. from drainage system of length 332.76 Km.

Information on requirement of fund under the head of repair of damaged infrastructure of immediate nature is given in the prescribed **Format- VIII**.

Format-I
District-wise Rainfall Data
Month : JULY, 2009

Sl.	Name of the affected districts	Rainfall during the calamity						Rainfall during the corresponding period in the last three years					
		2009			2008			2007			2006		
		Actual	Normal	Deviation	Actual	Normal	Deviation	Actual	Normal	Deviation	Actual	Normal	Deviation
1	Balasore	430.4	308.6	39.5	263.5	308.6	-14.6	452.0	308.6	46.5	369.8	308.6	19.8
2	Bhadrak	600.4	293.6	104.5	145.4	293.6	-50.5	240.6	293.6	-18.0	277.4	293.6	-5.5
3	Bolangir	840.2	360.5	133.1	335.4	360.5	-7.0	278.1	360.5	-22.9	577.3	360.5	60.1
4	Cuttack	740.7	308.3	140.3	280.2	308.3	-9.1	186.5	308.3	-39.5	438.8	308.3	42.3
5	Ganjam	459.3	220.8	106.0	225.6	220.8	2.2	130.1	220.8	-41.1	384.0	220.8	73.9
6	Jajpur	608.4	350.9	73.4	150.8	350.9	-57.0	229.3	350.9	-34.7	307.4	350.9	-12.4
7	Kalahandi	913.1	327.7	178.6	304.2	327.7	-7.2	241.4	327.7	-26.3	816.6	327.7	149.2
8	Kandhamal	853.0	325.1	165.5	238.9	325.1	-26.6	181.6	325.1	-44.1	634.9	325.1	95.3
9	Kendrapara	586.3	317.1	84.9	176.0	317.1	-44.5	206.2	317.1	-35.0	329.3	317.1	3.9
10	Keonjhar	442.3	318.0	39.1	332.4	318.0	4.5	444.3	318.0	39.7	300.9	318.0	-5.4
11	Khordha	567.6	304.9	86.2	293.1	304.9	-3.9	133.5	304.9	-56.2	432.3	304.9	41.8
12	Koraput	436.5	375.6	16.2	226.4	375.6	-38.9	205.4	375.6	-45.3	488.9	375.6	30.2
13	Mayurbhanj	284.3	337.3	-15.7	295.1	337.3	-12.5	541.3	337.3	60.5	400.6	337.3	18.8
14	Nayagarh	757.4	288.5	162.5	329.0	288.5	14.0	145.9	288.5	-49.4	391.6	288.5	36.7
15	Puri	606.3	292.0	106.7	334.3	292.0	14.5	99.2	292.0	-56.0	498.2	292.0	70.6
16	Sonepur	917.2	399.6	129.5	361.8	399.6	-8.5	206.5	399.6	-48.3	418.8	399.6	4.8
17	Sundargarh	395.8	386.4	2.4	423.0	386.4	9.6	462.7	386.4	19.7	435.9	386.4	12.8

Format-I
District-wise Rainfall Data
Month : SEPTEMBER, 2009

Sl.	Name of the affected districts	Rainfall during the calamity						Rainfall during the corresponding period in the last three years					
		2009			2008			2007			2006		
		Actual	Normal	Deviation	Actual	Normal	Deviation	Actual	Normal	Deviation	Actual	Normal	Deviation
1	Balasore	335.0	267.6	25.2	298.5	267.6	11.9	602.5	267.6	125.3	429.3	267.6	60.4
2	Bhadrak	278.9	216.8	28.6	323.5	216.8	49.2	466.7	216.8	115.3	267.5	216.8	23.4
3	Bolangir	134.1	237.4	-43.5	472.5	237.4	99.0	338.6	237.4	42.7	114.1	237.4	-52.0
4	Cuttack	240.6	229.2	5.0	495.8	229.2	116.3	640.7	229.2	179.5	329.1	229.2	43.6
5	Ganjam	125.1	216.3	-42.2	303.4	216.3	40.3	357.5	216.3	65.3	272.5	216.3	26.0
6	Jajpur	305.7	238.0	28.4	491.6	238.0	106.6	578.2	238.0	142.9	379.4	238.0	59.4
7	Kalahandi	100.4	204.6	-50.9	455.4	204.6	122.6	399.1	204.6	95.1	305.0	204.6	49.1
8	Kandhamal	217.0	239.1	-9.2	550.7	239.1	130.3	511.0	239.1	113.7	260.0	239.1	8.8
9	Kandrapara	359.0	237.3	51.3	510.0	237.3	114.9	498.0	237.3	109.9	246.3	237.3	3.8
10	Keonjhar	167.6	241.1	-30.5	332.7	241.1	38.0	419.4	241.1	73.9	282.6	241.1	17.2
11	Khordha	206.5	234.5	-11.9	332.6	234.5	41.8	475.8	234.5	102.9	279.9	234.5	19.4
12	Koraput	122.6	256.3	-52.2	313.0	256.3	22.1	376.7	256.3	47.0	346.6	256.3	35.2
13	Mayurthanj	241.8	262.0	-7.7	281.0	262.0	7.3	471.0	262.0	79.8	335.9	262.0	28.2
14	Nayagarh	161.5	226.8	-28.7	414.9	226.8	62.9	401.8	226.8	77.1	179.6	226.8	-20.7
15	Puri	240.0	243.2	-1.3	267.4	243.2	9.9	390.8	243.2	60.7	241.8	243.2	-0.6
16	Sonepur	171.3	228.0	-24.9	348.3	228.0	52.8	333.5	228.0	46.3	128.5	228.0	-43.6
17	Sundargarh	107.5	211.5	-49.2	249.0	211.5	17.7	263.7	211.5	24.7	131.9	211.5	-37.6

Format-II

Extent of Damage due to Natural Calamities

State : Orissa

Nature and period of natural calamity – *Flood in July and September 2009*

Sl.	Item	Details
1	Total number of Districts in the State	30
2	No. and Names of the Districts affected	17
3	Number of Villages affected	2706
4	Population affected (in lakh)	6.61
5	Total land area affected (in lakh ha)	2.83
6	Crop Area affected (in lakh ha)	
	(i) Total cropped area affected	1.41
	(ii) Estimated loss to crops (Rs. in lakh)	-
	(iii) Area where cropped damage was more than 50%	-
7	Percentage of area held by SMF	
	(i) In the state as a whole	-
	(ii) In the affected districts	-
8	Houses damaged	
	(a) No. of houses damaged	13547
	(i) Fully damaged pucca houses	-
	(ii) Fully damaged kutcha houses	354
	(iii) Severely damaged pucca houses	-
	(iv) Severely damaged kutcha houses	1523
	(v) Partially damaged houses (pucca+kutcha)	11154
	(vi) No. of huts damaged	516
	(b) Estimated value of damage to houses (Rs. in lakh)	
9	No. of Human lives lost	59
10	No. of persons with grievous injuries	-
11	No. of persons with minor injuries	-
12	Animal lost	
	(a) No. of big animals lost	-
	(b) No. of small animals lost	-
	(c) No. of poultry (birds) lost	-
13	Damage to public properties : (a) In physical terms (sector-wise details should be given – e.g. length of State roads damaged, length of district roads damaged, length of village roads damaged, No. of bridges damaged, No. of culverts damaged, No. of school buildings damaged etc.	Rs. 224.32 Crore [Details are in Format-VIII]
	(b) Estimated value of the damage to public properties	Rs. 483.02 crore
14	Estimated total damage to houses, crops and public properties	Rs. 856.17 crore

Format-VI

Assistance sought for repair/ restoration of damaged houses

(Rs. in Lakh)

Sl.	District	Fully Damaged				Severely Damaged				Partially		Huts		Total
		Pucca	Amount Rs. 35000/-	Kutcha	Amount Rs. 10000/-	Pucca	Amount Rs. 5000/-	Kutcha	Amount Rs. 2500/-	Nos.	Amount Rs. 1500/-	Nos.	Amount Rs. 2000/-	
1	Balasore	-	-	2	0.20	-	-	8	0.20	120	1.80	14	0.28	2.48
2	Bolangir	-	-	13	1.30	-	-	-	-	2431	36.47	423	8.46	46.23
3	Cuttack	-	-	12	1.20	-	-	54	1.35	345	5.18	3	0.06	7.79
4	Ganjam	-	-	198	19.80	-	-	876	21.90	2325	34.87	76	1.52	78.09
5	Kalahandi	-	-	103	10.30	-	-	273	6.83	2529	37.94	-	-	55.07
6	Keonjhar	-	-	11	1.10	-	-	11	0.28	-	-	-	-	1.38
7	Koraput	-	-	11	1.10	-	-	15	0.38	107	1.61	-	-	3.09
8	Nayagarh	-	-	4	0.40	-	-	286	7.15	3297	49.46	-	-	57.01
Total		-	-	354	35.40	-	-	1523	38.09	11154	167.33	516	10.32	251.14

Format-VIII

Format for working out the requirements under the head of repair of damaged infrastructure of immediate nature for Flood - 2009

(Rs. in crore)

Sector	Damage in physical terms	Requirements of funds for repair of immediate nature	Out of (3), amount available from annual maintenance budget	Out of (3), amount available from related schemes/ programs/ other sources	Out of (3), amount proposed to be met from CRP/MCCF in accordance with list of works indicated in the Appendix to the revised items & norms
1	2	3	4	5	6
Roads & Bridges	PWD Roads	Nil	Nil	28.27	28.27
	No. of breaches-129 Length of Road damaged - 2769.697km. No. of culverts damaged - 856 No. of culverts washed away - 18				
	Rural Roads	Nil	Nil	43.46	43.46
	No. of Roads damaged - 868 Length of Road damaged - 1522.919 Km No. of breaches - 284 No. of CD/Bridge damaged - 447 No. of CD/Bridge washed away - 188				
	Urban Roads	Nil	Nil	30.99	30.99
Irrigation	Panchayat Roads	Nil	Nil	57.34	57.34
	No. of Roads damaged - 1867 Length of breaches - 97.98 Km Length of Road damaged - 1635.95 Km No. of culverts damaged - 721 No. of culverts washed away - 41				
	River Embankment	Nil	Nil	31.97	31.97
	No. of breaches - 123 Length of breach in Km - 11.20 No. of partial damage - 268 Length of partial damage in Km - 36.51				
	Canal Embankments	Nil	Nil	10.84	10.84
Total	Minor Irrigation projects	Nil	Nil	14.16	14.16
	Clearance of Drainage channels	Nil	Nil	7.29	7.29
	No. of breaches - 145 Length of breach in Km - 3.36 No. of partial damage - 129 Length of partial damage in Km - 42.99 No. of Minor Irrigation projects damaged - 614 Length of drainage channels congested with vegetative materials - 332.78 Km				
				224.32	224.32

Drought

Drought is a temporary reduction in water or moisture availability significantly below the normal or expected amount for a specific period. This condition occurs either due to inadequacy of rainfall or lack of irrigation facilities, under-exploitation or deficient availability for meeting the normal crop requirements in the context of the agro-climatic conditions prevailing in any particular area. This has been scientifically computed as Moisture Index (MI). There is a drought if there is not enough rainfall for bringing the paddy crop to maturity.

There are three types of drought

- Meteorological Drought describes a situation where there is a reduction in rainfall for a specific period (days, months, season or years) below a specific amount (long term average for a specific time).
- Hydrological Drought involves a reduction in water resources (stream flow, lake level, ground water, underground aquifers) below a specified level for a given period of time.
- Agricultural Drought is the impact of meteorological/hydrological drought on crop yield.

Rainfall

Normally the rainy season starts from early June and continues till the end of September. On April 2009, the India Meteorological Department released its first long range forecast for the 2009 south-west monsoon season. At 96 per cent of the long period average, rainfall was predicted to be near normal for the country as a whole including Orissa during June-September 2009. The error margin for the forecast was placed at +/- five per cent.

But the heat-wave in the State of Orissa continued till the end of June. Since January 2008, reservoir levels in the State remained below their year ago levels. Water level was the lowest in April 2009 when compared to the corresponding month of the past three years. The table below indicates the level of water in major reservoirs of the State in comparisons to that of the country as a whole in the month of April.

Water Levels in Major Reservoirs during April 2009

	No of reservoirs	Live storage at FRL in TM CUM	Live storage in TM CUM		% change	As % of storage
			01 May 2008	30 Apr 2009		
Orissa	7	15.34	4.22	2.11	-50.00	13.75
India	81	151.77	40.23	25.58	-34.09	17.42

It has been our experience in a number of years that late onset and / or early withdrawal of monsoon, scanty and erratic rainfall and absence of soil moisture is the main reason for crop loss/ drought. The timely arrival of the south-west monsoon and its satisfactory temporal and spatial distribution are important for a good kharif crop.

The 2009 south-west monsoon hit Kerala on 23 May, much ahead of its normal onset date of 1st June. This raised hopes of its smooth progress across the country including our state. However, the early arrival of monsoon proved to be a false start. The cyclone AILA played spoilsport, diverting the normal course of the monsoon. It blew over the eastern coast of India following which there was no progress in rainfall activity for almost a week. After a two-week hiatus, it revived in the last week of June 2009. It took rapid strides thereafter, and by 3 July 2009, covered the entire country. But this apparent fast progress after a long weak spell was misleading. In fact, by 28 May 2009, live water storage levels dropped by 42 per cent to 18.9 bcm in India and by 55 per cent to as low as 1.15 bcm in Orissa.

Water Levels in Major Reservoirs during May

	No of reservoirs	Live storage at FRL in TM CUM	Live storage in TM CUM		% change	As % of storage
			29 May 2008	28 May 2009		
Orissa	7	15.34	2.58	1.15	-55.43	7.50
India	81	151.77	32.84	18.90	-42.39	12.45

Though monsoon breaks around the 10th of June in Orissa, during the current monsoon season, it actually broke around end of June in some parts of the State and beginning of July in some other parts. All four weeks of June recorded deficient rainfall. During June, rainfall was deficient by about 61%.

As rainfall was deficient in June, sowing was delayed for most kharif crops and affected yield of the early sown crops. A lot of areas remained unsown as there was no prospect of any crop coming satisfactorily. Poor rains further depleted the already low water levels in major reservoirs. Due to the absence of rainfall for a considerable period in June and also due to the weak spell thereafter, hardly any sowing activities could commence during the month. By 02 July 2009, live water storage levels dropped by 59 per cent to 14.3 bcm in India and by 82 per cent to as low as 0.48 bcm in Orissa.

Water Levels in Major Reservoirs during July

	No of reservoirs	Live storage at FRL in TM CUM	Live storage in TM CUM		% Change	As % of storage
			03 July 2008	02 July 2009		
Orissa	7	15.34	2.66	0.48	-81.95	3.13
India	81	151.77	34.87	14.32	-59.11	9.41

The Southwest monsoon revived in July 2009 after playing truant in June. However its spatial distribution in the State remained unsatisfactory. During July 2009, there was excess rainfall by about 76%. But there was 93 per cent of excess rainfall up to 21st of July, whereas from 22nd July onwards, the rainfall was deficient by about 63%. The trend of deficient rainfall, which started from 22nd of July, continued in August as well as September. In August 2009, rainfall was deficient by about 23%. Hence, the paddy transplantation was delayed due to lack of sufficient rains and could not be undertaken in many areas later on. The pattern of rainfall as afore mentioned clearly indicates that the month of June had almost a totally dry spell, which affected sowing of crops whereas the dry spell after 22nd July delayed transplantation, beushaning and the growth of the paddy crop across the State.

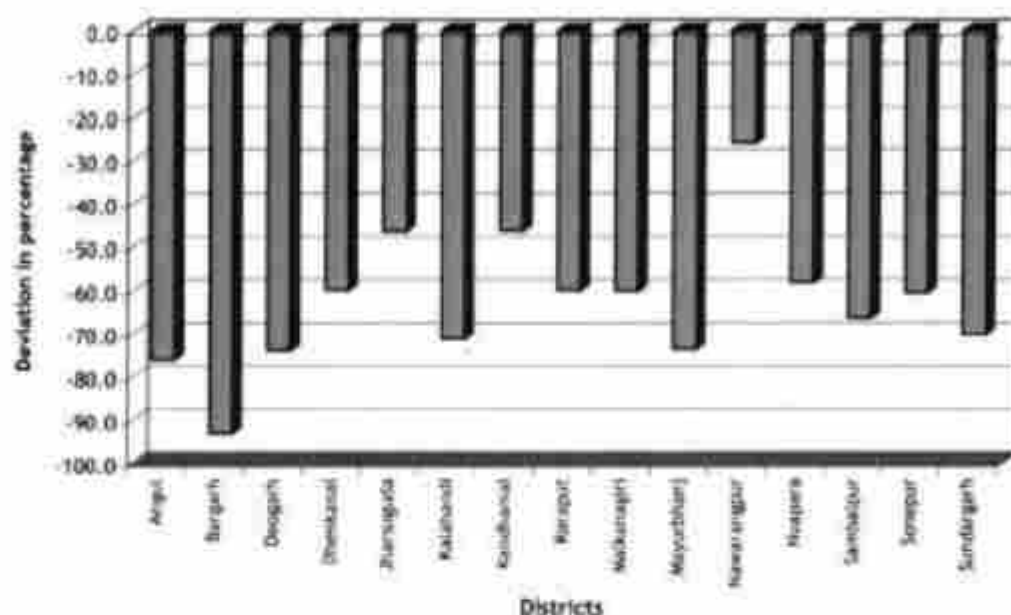
During September the axis of monsoon did not lie in all parts of the State. Five Districts such as Cuttack, Jajpur, Kendrapara, Balasore and Bhadrak received more rainfall as compared to normal due to the effect of low pressure over North-West Bay of Bengal. The remaining Districts received rainfall much less than the normal and the State cumulatively received 31% less rainfall than the normal. This situation added a major setback to the standing crop. Further, there was no sufficient soil moisture for the crops sown very late and there was moisture stress upon the standing crops. Thereafter, infestation of swarming caterpillar in August and September also affected the crop growth.

The District-wise actual rainfall and percentage of deviation from the month of June to September are given in the following table.

June

Sl.No.	District	Rainfall (in mm)		% of Deviation
		Normal	Actual	
1	Angul	225.1	53.8	-76.1
2	Bargarh	205.6	13.8	-93.3
3	Deogarh	242.4	63.0	-74.0
4	Dhenkanal	225.7	90.1	-60.1
5	Jharsuguda	218.8	117.4	-46.3
6	Kalahandi	240.4	68.8	-71.4
7	Kandhamal	207.9	111.8	-46.2
8	Koraput	206.8	82.6	-60.1
9	Maikanagiri	212.2	84.4	-60.2
10	Mayurbhanj	265.8	70.0	-73.7
11	Nawarangpur	251.8	185.9	-26.2
12	Nuapara	210.3	87.6	-58.3
13	Sambalpur	221.0	73.9	-66.6
14	Sonepur	217.4	85.7	-60.6
15	Sundargarh	237.4	70.5	-70.3

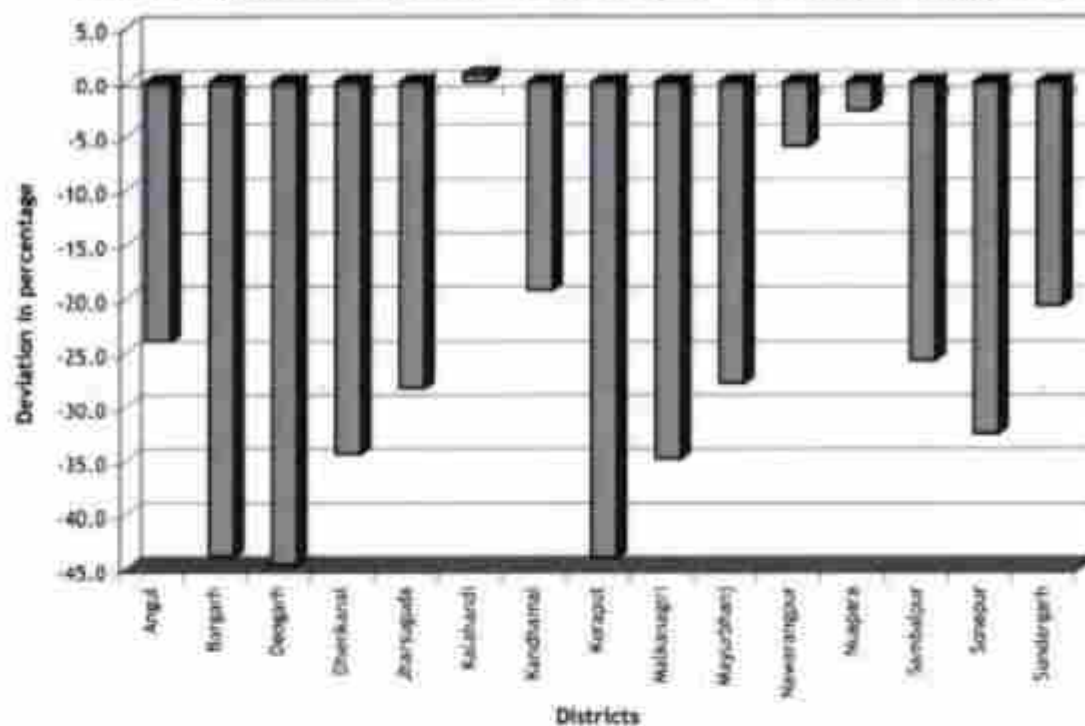
Fig.1.1. Rainfall Deviation of the affected Districts for the Month of JUNE 2009



August

Sl.No.	District	Rainfall (in mm)		% of Deviation
		Normal	Actual	
1	Angul	357.5	271.9	-23.9
2	Bargarh	374.4	210.0	-43.9
3	Deogarh	443.4	245.8	-44.6
4	Dhenkanal	344.8	226.1	-34.4
5	Jharsuguda	382.9	274.4	-28.3
6	Kalahandi	355.4	357.9	0.7
7	Kandhamal	330.8	267.1	-19.3
8	Koraput	393.6	220.4	-44.0
9	Malikarjuna	472.8	308.0	-34.9
10	Mayurbhanj	359.9	259.6	-27.9
11	Nabarangpur	407.5	383.4	-5.9
12	Nuapara	327.8	319.2	-2.6
13	Sambalpur	442.4	328.6	-25.7
14	Sonepur	408.9	276.0	-32.5
15	Sundargarh	393.9	312.6	-20.6

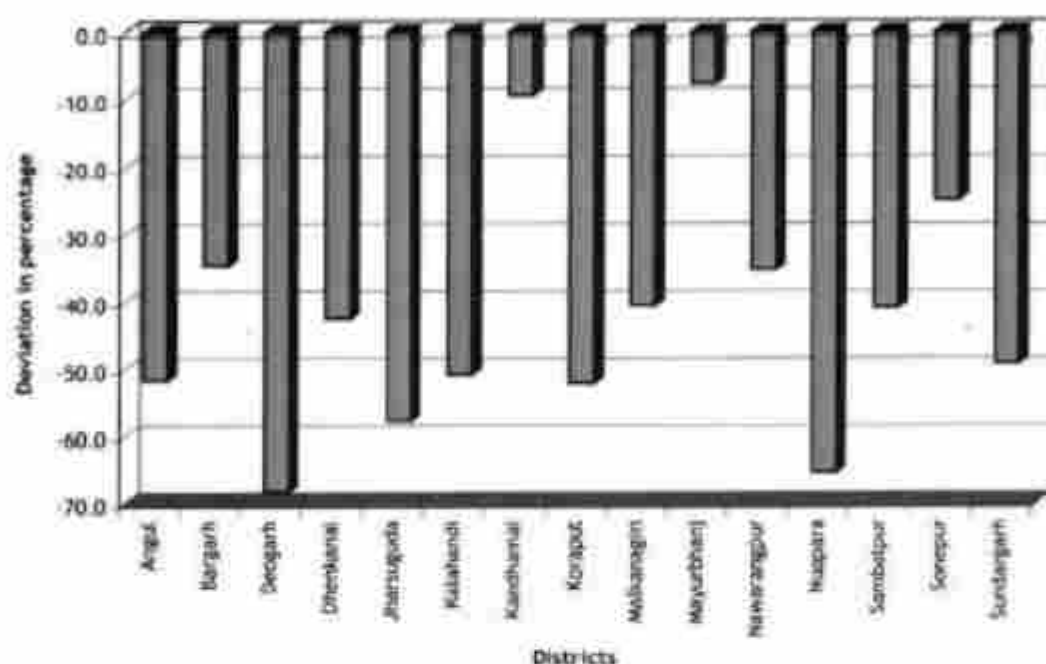
Fig.1.2. Rainfall Deviation of the affected Districts for the Month of AUGUST 2009



September

Sl.No.	District	Rainfall (in mm)		% of Deviation
		Normal	Actual	
1	Angul	217.5	104.7	-51.9
2	Bargarh	222.6	145.8	-34.5
3	Deogarh	228.2	72.6	-68.2
4	Dhenkanal	220.6	127.1	-42.4
5	Jharsuguda	210.7	89.2	-57.7
6	Kalahandi	204.6	100.4	-50.9
7	Kandhamal	239.1	217.0	-9.2
8	Koraput	256.3	122.6	-52.2
9	Malkangiri	281.2	166.9	-40.6
10	Mayurbhanj	262.0	241.8	-7.7
11	Nabarangpur	225.6	146.1	-35.2
12	Nuapara	214.5	74.0	-65.5
13	Sambalpur	224.7	132.7	-40.9
14	Sonepur	228.0	171.3	-24.9
15	Sundargarh	211.5	107.5	-49.2

Fig.1.3. Rainfall Deviation of the affected Districts for the Month of SEPTEMBER 2009



The table below indicates the normal and actual rainfall position in the State from June to October 2009.

Month	Normal	Rainfall in MM	
		Actual	Deficiency
June	216.5	85.0	-60.7
July	339.9	601.4	76.9
August	356.0	281.2	-21.9
September	231.9	159.6	-31.2

Rainfall Pattern

June, 2009

Sl.	District	Number of Blocks with deficient rainfall			
		0 to -20%	-20 to -40%	-40 to -50%	Above -50%
1	Angul	-	-	-	8
2	Bargarh	-	-	-	12
3	Deogarh	-	-	-	3

4	Dhenkanal	2	-	-	6
5	Jharsuguda	1	-	1	11
6	Kalahandi	2	2	-	8
7	Kandhamal	1	1	3	9
8	Koraput	2	1		2
9	Malkangiri	-	1	1	5
10	Mayurbhanj	1	1	-	24
11	Nawarangpur	5	4		1
12	Nuapada	-		3	2
13	Sambalpur	-	1	-	8
14	Subarnapur	-		1	5
15	Sundargarh	-	3	-	14

August, 2009

Sl.	District	Number of Blocks with deficient rainfall			
		0 to -20%	-20 to -40%	-40 to -50%	Above -50%
1	Angul	-	-	-	8
2	Bargarh	-	-	-	12
3	Deogarh	-	-	-	3
4	Dhenkanal	-	-	-	8
5	Jharsuguda	-	5	-	-
6	Kalahandi	-	13	-	-
7	Kandhamal	-	12	-	-
8	Koraput	14	-	-	-
9	Malkangiri	7	-	-	-
10	Mayurbhanj	26	-	-	-
11	Nawarangpur	4	-	-	-
12	Nuapada	-	-	-	-
13	Sambalpur	-	-	-	-
14	Subarnapur	-	-	-	-
15	Sundargarh	-	-	-	-

September, 2009

Sl.	District	Number of Blocks with deficient rainfall			
		0 to -20%	-20 to -40%	-40 to -50%	Above -50%
1	Angul	-	3	1	5
2	Bargarh	2	2	-	5
3	Deogarh	-	-	-	3
4	Dhenkanal	2	-	3	3
5	Jharsuguda	1	-	1	3
6	Kalahandi	1	2	3	7
7	Kandhamal	3	3	-	2
8	Koraput	2	2	2	8
9	Malkangiri	2	-	1	4
10	Mayurbhanj	8	8	3	-
11	Nawarangpur	2		1	5
12	Nuapada	-	1		4
13	Sambalpur	1	2	1	4
14	Subarnapur	3	1	-	1
15	Sundargarh	1	1	5	9

Progress of Rainfall Pattern 2009 in the affected districts

Sl.No	Month	Number of Blocks with deficient rainfall			
		0 to -20%	-20 to -40%	-40 to -50%	Above -50%
1	June	14	14	9	118
2	July	9	2	3	5
3	August	51	30	0	31
4	September	28	25	21	63

The rainfall data of the affected districts is given in the prescribed **Format –I**.

Drought Management

The strategy for this management is basically threefold.

- Close monitoring of the emerging drought scenario so as develop an advance warning system
- Relief measures required for providing immediate succour to the affected population and the upkeep of the cattle wealth, and if possible to integrate it with long term objectives and

- Hammering out an alternative crop strategy for maximum possible retrieval of the Kharif crop and a better ensuing Rubi crop.

Since drought prediction methods are at a very nascent stage, IMD has made efforts to provide a long range forecast of monsoon rainfall. In 1988, a parametric power regression model was developed on the basis of global and regional meteorological and oceanic parameters (physically related monsoon and rainfall) for estimating the monsoon rainfall. The model is successful in estimating the correct nature of monsoon and can be utilized for drought mitigation planning. IMD carries out rainfall monitoring up to District level on a real time basis. All this helps in estimating the drought conditions over any particular region.

Measures taken up by the State Government

Crop Weather Watch Group

A committee of Crop Weather Watch Group has been constituted under the Chairmanship of Agriculture Production Commissioner, Orissa with the following members to monitor the progress of Kharif 2009 crops on weekly basis. The committee held its meeting in each Monday.

- i) Commissioner-cum- Secretary, Agriculture Department
- ii) Principal Secretary, Water Resources Department
- iii) Special Relief Commissioner, Orissa
- iv) Director of Agriculture & Food Production
- v) Director of Economics & Statistics
- vi) Director of Horticulture
- vii) Director, India Meteorological Centre, Bhubaneswar
- viii) Agro Meteorologist, Orissa University of Agriculture and Technology
- ix) Managing Director, OSSC Ltd.
- x) Agriculturist, Agriculture Department (Nodal Officer)

Drought Monitoring Committee

A Drought Monitoring Committee under the Chairmanship of Agriculture Production Commissioner, Orissa has been constituted w.e.f. 28.10.2009 for regular monitoring of various short term and long term measures to deal with the situation arising out of deficient and erratic rainfall. The Monitoring Committee

meets every 15 days to take stock of the progress. The Members of the Committee are mentioned below.

Agriculture Production Commissioner	-	Chairman
Commissioner-cum-Secretary, Department of Agriculture	-	Member-Convenor
Commissioner-cum-Secretary, Department of Panchayati Raj	-	Member
Commissioner-cum-Secretary, Department of Water Resources	-	Member
Commissioner-cum-Secretary, Department of Energy	-	Member
Commissioner-cum-Secretary, Department of Revenue & Disaster Management	-	Member

High Level Meetings

- Hon'ble Chief Minister has taken a review meeting with high level officers on crop loss situation on 28.10.09.
- Hon'ble Minister Revenue and Disaster Management has also taken review meeting with Revenue Divisional Commissioners and high officials to take the stock of the situation on 29.10.2009.
- On 17.11.2009 Minister, Hon'ble Minister Revenue and Disaster Management took a review meeting with the concerned officers to review the crop loss position due to deficient rainfall and pest attack.

Instruction to Collectors

- All Revenue Divisional Commissioners and Collectors were requested vide letter No.2406 / SR dt.08.09.09 and 2423 / SR dt.09.09.09 to monitor the situation by conducting frequent tours and meetings with Revenue and Agricultural Field Level Officers and submit weekly report to Special Relief Commissioner.

Management Information System

Based on the verdict and observation of Hon'ble Supreme Court of India, arising 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 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 Employment Generation Work, Food for Work for vulnerable population in scarcity pockets and in epidemic prone areas. In the process, individual with prolonged illness, mothers and children with malnutrition are being brought safe through this Social Security Net.

As the state is passing through a severe drought situation, the vulnerability of the poorest of the poor to hunger and mal-nutrition is likely to increase. In spite of various schemes that aim at the amelioration of poverty and food security issues, there is a huge gap between the goals set and results achieved. This situation dictates that the monitoring and supervision mechanism in the field level be systematized and followed up.

In the above milieu, for the purpose of tracking information on the current drought situation and action taken at every level, a chapter on drought was incorporated in the MIS (Management Information System) report for the fortnight ending 15th October, 2009. The intension is to collect information from Gram Panchayat level, Sub Division level & District level in each fortnight. The parameters and indicators included in the MIS helps us to keep track of the situation in the field so that prompt interventions can be made to diffuse the situation with the resources available.

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.

The fortnight reports on MIS starting from 15th October 2009 to 30th November 2009 is as follows.

Analysis and Inference on feedbacks
[For the fortnight ending 15th October 2009]

(i) Job Seekers

- ❖ All Collectors except *Gajapati, Jajpur, Kendrapara & Koraput* have reported that there was no job seekers available for wage employment without work in the District. Panchayati Raj Department, which is supervising implementation of Orissa Employment Generation Scheme, may cross check.

[Action- Panchayati Raj Department]

- ❖ The report of Collector *Koraput, Jajpur, Kendrapara & Gajapati* indicates existence of **145, 291, 260 & 158** numbers of job seekers respectively without work during the fortnight. The Collectors must make required interventions through existing schemes for providing them with wage employment. The specific action taken in this regard should be intimated.

[Action- Collectors as above]

(ii) Food Security

- ❖ Reports show that **176** numbers of retail outlets have not lifted their stock during the fortnight. The Collectors of *Angul, Gajapati, Ganjam, Mayurbhanj, Nayagarh & Nuapada* should pay special attention to minimise the numbers in the next fortnight.

[Action- Collectors above]

- ❖ **4690** beneficiaries have not lifted their entitlement under Annapurna Yojana. **2153, 832, 746, 428 & 205** families those who have not lifted their entitlement are in *Cuttack, Ganjam, Nayagarh, Angul & Sundargarh Districts respectively where the nos. are comparatively high.*

[Action- Collectors above]

- ❖ Similarly **219734** families have not lifted their entitlement under Antodaya Anna Yojana. This has increased in comparison to the figure of **9902** relating to 2nd fortnight of September 2009. The figures in the Districts of *Balasore, Mayurbhanj, Nayagarh, Ganjam, Cuttack, Boudh, Gajapati, Rayagada, Angul and Sundargarh* are comparatively high.

[Action- Collectors above]

(iii) Social Security & Malnutrition

- ❖ **14** ICDS centre are not functioning during the fortnight in the District of Angul.

[Action- Collector above]

- ❖ The percentage of Gr.III and Gr.IV children is high in the Districts like *Ganjam, Keonjhar, Rayagada, Nuapada, Nawarangpur, Kalahandi, Jharsuguda, Kandhamal and Balasore.*

[Action- Collectors as above and W. & C.D. Department]

- ❖ It is seen that **8821** persons have not received their Old age pension/Widow pension. Collectors of *Mayurbhanj, Nayagarh, Angul, Jagatsinghpur, Rayagada, Gajapati and Ganjam* Districts must pay personal attention to this aspect where they are having the maximum no. of persons not receiving the pension.

[Action- Collectors as above]

(iv) **Health Care and Safe Drinking Water**

- ❖ There is no death in Malaria and **8** in Diarrhoea during the fortnight under report.

[Action- H & F.W. Deptt.]]

- ❖ At the end of the 2nd fortnight of September 2009, there were **1882** habitations without safe drinking water. But now the collectors have reported that this number is **1720**. However, it calls for immediate intervention of Collectors of *Kendrapara, Balasore, Gajapati, Deogarh, Angul & Boudh* where the figures are comparatively high.

- ❖ The Collectors of aforesaid Districts are requested to furnish the details i.e. Name, Tahasil and Block of such habitations at the time of submission of compliance in the next fortnight.

[Action- Collectors as above, Rural Development Department / H & UD Department]

(V) **Present Drought Like Situation**

All the Revenue Divisional Commissioners and Collectors were requested vide this office letter No.2406 /SR dt.08.09.2009 and letter No.2423/SR dt.09.09.2009 to monitor the present drought like situation by conducting field visits in consultation with concerned Collectors / Sub-Collectors / Tahasildars and Agricultural Field Level Officers and submit considered views every week for further action.

The Collectors of Sambalpur and Jharsuguda District have reported that Jamankira Block of Sambalpur District and Kimira, Laikera and Lakhanpur Block of Jharsuguda District have sustained crop loss of 50% and above due to inadequate rainfall / pest attack on eye estimation. Accordingly, two teams of Special Relief Organization headed by the Additional Commissioner Relief and Joint Commissioner Relief are in the field to take stock of the situation.

It has also been decided in the Crop Weather Watch Group committee meeting held on 12.10.2009 under the Chairmanship of Agriculture Production Commissioner that joint assessment of crop loss shall be taken up in those blocks by field official of Agriculture

Department and Revenue and Disaster Management where rainfall deficiency during August and September is more than 20%.

In the mean while, the High Level Committee (HLC) headed by Hon'ble Union Minister of Finance in its meeting held on dt.18.08.2009 has decided that gratuitous relief is to be provided only to those families in dire need of immediate sustenance, who have no food reserve or whose food reserve have been wiped out in a calamity and who have no other means of support. For such families, the State Governments may provide assistance under the National Rural Employment Guarantee Programme (NREGP) of the Ministry of Rural Development.

In response, all Collectors have been requested to start crop cutting experiment, where crops are matured and ready for harvest as per the rules laid down in the Orissa Relief Code. They have also been requested to ensure food security through NREGS and strengthening Public Distribution System where there is drought like situation, pending the detailed crop loss assessment.

[Action- Agriculture Department / Revenue & D.M. Department /
All R.D.C.s / All Collectors]

Suggestions

- ❖ The objective of collecting information from grass root level involving the Panchayati Raj Institutions was to have a broad picture of the constraints and deficiencies if any in implementation of various schemes. In the absence of the involvement and commitment from all concerned it will be a futile fortnightly exercise.

[Action- All Collectors]

- ❖ In view of the availability of job seekers to the tune of **854**, Collectors should try to cover the job seekers under the various existing wage employment programmes. They may seek further Funds for starting labour intensive works in the event of inadequacies.

[Action- Panchayati Raj Department]

- ❖ The Collectors concerned should immediately ascertain as to why some beneficiaries under Annapurna Yojana and Antodaya Arna Yojana have not lifted the stock.

[Action- All Collectors]

- ❖ The Collectors have reported that **0.61** lakh additional beneficiaries need to be covered under supplementary nutrition programme. The W&CD Department may therefore examine the matter and suggest remedial action.

[Action- W. & C.D. Department]

- ❖ The reports received from the Districts reveal that **8,821** persons have not received Old age pension/Widow pension. It requires a detailed field verification and substitution in case of death and migration. This has been reiterated time and again. In spite of repeated request, compliance on this score is not forthcoming. Hence, the Collectors should expedite this and complete the substitution *immediately* and report compliance.

[Action- All concerned Collectors & W.& C.D. Deptt.]

- ❖ It is seen from the reports that **1720** habitations need provision of Safe Drinking Water immediately. R.D. and H. & U.D. Department should verify the position as claimed by Districts and expedite response in the matter.

[Action- Rural Development and H & U.D. Department]

- ❖ **44** main bread earners are suffering from prolonged illness. Collectors of *Keonjhar, Nuapada & Kandhamal* should provide them Food Assistance if not provided and send specific compliance positively.

[Action- Concerned Collectors & H. & F.W. Department]

Analysis and Inference on feedback [For the fortnight ending 31st October 2009]

(i) Job Seekers

- ❖ All Collectors except *Gajapati, Jajpur & Kendrapara* have reported that there was no job seekers available for wage employment without work in the District. Panchayati Raj Department, which is supervising implementation of Orissa Employment Generation Scheme, may cross check.

[Action- Panchayati Raj Department]

- ❖ The report of Collector *Jajpur, Kendrapara & Gajapati* indicates existence of **291, 254 & 158** numbers of job seekers respectively without work during the fortnight. The Collectors must make required interventions through existing schemes for providing them with wage employment. The specific action taken in this regard should be intimated.

[Action- Collectors as above]

(ii) Food Security

- ❖ Reports show that **all** retail outlets have lifted their stock during the fortnight.
- ❖ **455** beneficiaries have not lifted their entitlement under Annapurna Yojana. **287, 121, 21 & 21** families those who have not lifted their

entitlement are in *Angul, Ganjam, Dhenkanal and Mayurbhanj Districts* respectively where the nos. are comparatively high.

[Action- Collectors above]

- ❖ Similarly **5133** families have not lifted their entitlement under Antodaya Anna Yojana. This has decreased in comparison to the figure of **219734** relating to 1st fortnight of October 2009. The figures in the Districts of *Balasore, Ganjam, Cuttack, Angul, Mayurbhanj and Rayagada* are comparatively high.

[Action- Collectors above]

(iii) Social Security & Malnutrition

- ❖ **18** ICDS centre are not functioning during the fortnight in the Districts of *Angul and Mayurbhanj*.

[Action- Collector above]

- ❖ The percentage of Gr.III and Gr.IV children is high in the Districts like *Puri, Keonjhar, Rayagada, Nawarangpur, Ganjam, Jharsuguda, Kalahandi & Balasore*.

[Action- Collectors as above and W. & C.D. Department]

- ❖ It is seen that **7013** persons have not received their Old age pension/Widow pension. Collectors of *Balasore, Angul, Mayurbhanj, Nayagarh, Nuapada, Ganjam & Kalahandi* Districts must pay personal attention to this aspect where they are having the maximum no. of persons not receiving the pension.

[Action- Collectors as above]

(iv) Health Care and Safe Drinking Water

- ❖ There is no death in Diarrhoea and **2** in Malaria during the fortnight under report.

[Action- H & F.W. Deptt.]

- ❖ At the end of the 1st fortnight of October 2009, there were **1720** habitations without safe drinking water. But now the collectors have reported that this number is **1580**. However, it calls for immediate intervention of Collectors of *Kendrapara, Gajapati, Angul, Deogarh, Balasore & Boudh* where the figures are comparatively high.

- ❖ The Collectors of aforesaid Districts are requested to furnish the details i.e. Name, Tahasil and Block of such habitations at the time of submission of compliance in the next fortnight.

[Action- Collectors as above, Rural Development Department / H & UD Department]

(V) Present Drought Like Situation

The Collectors were requested to start crop cutting experiment, where crops are matured and ready for harvest as per the rules laid down in the Orissa Relief Code. It is reported by some of the Collectors that the crop cutting experiment is going on. As prescribed in Orissa Relief Code, the Tahashildar will compile the village-wise list according to Gram Panchayat of the crop loss of 50% and above and report to Sub-Collector as per the following time schedule.

(a)	Autumn Paddy	End of October
(b)	Maize and Ragi	End of November
(c)	Winter Paddy	End of December
(d)	Summer paddy	End of May
(e)	Any other major crop	According to time of harvest.

The Sub-Collector will test check at least 2% of the total number of villages and shall furnish the compiled sub-divisional list to the Collector.

The Collector shall undertake test check at least 1% of the villages reported to have crop loss and furnish the consolidated list of the District to the Special Relief Commissioner by 15th January in case of Autumn and Winter Paddy and 15th June for summer paddy and for any other major crops within a period of 15 days from the date of harvest along with other necessary details.

On receipt of the report from the Collector the same will be compiled and Special Relief Commissioner will furnish the final report along with his views for the entire State to the Revenue and Disaster Management Department by the 31st of January in respect of Autumn and Winter paddy, Ragi and Maize.

As per the decision taken in the meeting chaired by Hon'ble Chief Minister on 28.10.2009 financial assistance in shape of Agriculture Input subsidy shall be provided to the farmers who have sustained crop loss due to pest attack. To that effect, Commissioner-cum-Secretary, Agriculture Department vide this office letter No.2825 /SR dt.30.10.2009 has been requested to access the crop loss due to pest attack by detailed filed survey in respect of both Autumn and Winter paddy in terms of resolution No.4177 dt.07.02.2008 of Agriculture Department and furnish the amount required towards input subsidy at the earliest.

The Collectors are once again requested to complete the crop cutting experiment in respect of autumn paddy immediately and report to concerned Revenue Divisional Commissioners, who will submit the report to Special Relief Commissioner/Revenue and Disaster Management Department in consonance with the time frame prescribed in the Orissa Relief Code.

[Action- Agriculture Department / Revenue & D.M. Department /
All R.D.C.s / All Collectors]

Suggestions

- ❖ The objective of collecting information from grass root level involving the Panchayati Raj Institutions was to have a broad picture of the constraints and deficiencies if any in implementation of various schemes. In the absence of the involvement and commitment from all concerned it will be a futile fortnightly exercise.

[Action- All Collectors]

- ❖ In view of the availability of job seekers to the tune of **703**, Collectors should try to cover the job seekers under the various existing wage employment programmes. They may seek further Funds for starting labour intensive works in the event of inadequacies.

[Action- Panchayati Raj Department]

- ❖ The Collectors concerned should immediately ascertain as to why some beneficiaries under Annapurna Yojana and Antodaya Arna Yojana have not lifted the stock.

[Action- All Collectors]

- ❖ The Collectors have reported that **0.54** lakh additional beneficiaries need to be covered under supplementary nutrition programme. The W&CD Department may therefore examine the matter and suggest remedial action.

[Action- W. & C.D. Department]

- ❖ The reports received from the Districts reveal that **7,013** persons have not received Old age pension/Widow pension. It requires a detailed field verification and substitution in case of death and migration. This has been reiterated time and again. In spite of repeated request, compliance on this score is not forthcoming. Hence, the Collectors should expedite this and complete the substitution *immediately* and report compliance.

[Action- All concerned Collectors & W. & C.D. Deptt.]

- ❖ It is seen from the reports that **1580** habitations need provision of Safe Drinking Water immediately. R.D. and H. & U.D. Department should verify the position as claimed by Districts and expedite response in the matter.

[Action- Rural Development and H & U.D. Department]

- ❖ **43** main bread earners are suffering from prolonged illness. Collectors of *Keonjhar & Nuapada* should provide them Food Assistance if not provided and send specific compliance positively.

[Action- Concerned Collectors & H. & F.W. Department]

Analysis and Inference on feedback
[For the fortnight ending 15th November 2009]

(i) Job Seekers

- ❖ All Collectors except *Gajapati, Jajpur, Kendrapara & Sundargarh* have reported that there was no job seekers available for wage employment without work in the District. Panchayati Raj Department, which is supervising implementation of Orissa Employment Generation Scheme, may cross check.

[Action- Panchayati Raj Department]

- ❖ The report of Collector *Gajapati, Jajpur, Kendrapara & Sundargarh* indicates existence of **150,291,240 & 85** numbers of job seekers respectively without work during the fortnight. The Collectors must make required interventions through existing schemes for providing them with wage employment. The specific action taken in this regard should be intimated.

[Action- Collectors as above]

(ii) Food Security

- ❖ Reports show that **91** retail outlets have not lifted their stock during the fortnight. The Collectors of *Gajapati, Nuapara & Sundargarh* should pay special attention to minimize the numbers in the next fortnight.

[Action- Collectors as above]

- ❖ **2504** beneficiaries have not lifted their entitlement under Annapurna Yojana. **593,452,392,284 & 282** families those who have not lifted their entitlement are in *Ganjam, Sundargarh, Angul, Cuttack and Mayurbhanj Districts respectively where the nos.is comparatively high.*

[Action- Collectors above]

- ❖ Similarly **219036** families have not lifted their entitlement under Antodaya Anna Yojana. This has increased in comparison to the figure of **5133** relating to 2nd fortnight of October 2009. The figures in the Districts of *Balasore, Ganjam, Cuttack, Nayagarh, Boudh, Gajapati and Rayagada* are comparatively high.

[Action- Collectors above]

(iii) Social Security & Malnutrition

- ❖ **1** ICDS center is not functioning during the fortnight in the District of Angul.

[Action- Collector above]

- ❖ The percentage of Gr.III and Gr.IV children is high in the Districts like *Keonjhar, Rayagada, Nawarangpur, Ganjam, Jharsuguda, Mayurbhanj, Kalahandi & Balasore.*

[Action- Collectors as above and W. & C.D. Department]

- ❖ It is seen that **9088** persons have not received their Old age pension/Widow pension. Collectors of *Bolangir, Angul, Mayurbhanj, Nayagarh, Gajapati & Jagatsingpur* Districts must pay personal attention to this aspect where they are having the maximum no. of persons not receiving the pension.

[Action- Collectors as above]

(iv) Health Care and Safe Drinking Water

- ❖ There is no death in Diarrhoea and **2** in Malaria during the fortnight under report.

[Action- H & F.W. Deptt.]

- ❖ At the end of the 2nd fortnight of October 2009, there were **1580** habitations without safe drinking water. But now the collectors have reported that this number is **1731**. However, it calls for immediate intervention of Collectors of *Kendrapara, Gajapati, Angul, Deogarh, Balasore, Kandhamal & Boudh* where the figures are comparatively high.

- ❖ The Collectors of aforesaid Districts are requested to furnish the details i.e. Name, Tahasil and Block of such habitations at the time of submission of compliance in the next fortnight.

[Action- Collectors as above, Rural Development Department / H & UD Department]

(V) Present Drought Like Situation

On receipt of information on crop loss from the Districts, a high level meeting under the chairmanship of Hon'ble Minister, Revenue and Disaster Management was convened on 17.11.09 to discuss regarding crop loss due to scanty/ erratic rainfall and Pest Attack in different Districts. It was resolved to release an amount of Rs.20.00 crore out of CRF in favour of the Agriculture Department to facilitate the process of distribution of input subsidy. Accordingly, Rs.20.00 crore has been released in favour of the Agriculture Department vide letter No. 3821 Dt.17.11.09 of Special Relief Commissioner, Orissa.

Suggestions

- ❖ The objective of collecting information from grass root level involving the Panchayati Raj Institutions was to have a broad picture of the constraints and deficiencies if any in implementation of various schemes. In the absence of the involvement and commitment from all concerned it will be a futile fortnightly exercise.

[Action- All Collectors]

- ❖ In view of the availability of job seekers to the tune of **766**, Collectors should try to cover the job seekers under the various existing wage employment programmes. They may seek further Funds for starting labour intensive works in the event of inadequacies.
[Action- Panchayati Raj Department]
- ❖ The Collectors concerned should immediately ascertain as to why some beneficiaries under Annapurna Yojana and Antodaya Arna Yojana have not lifted the stock.
[Action- All Collectors]
- ❖ The Collectors have reported that **0.61** lakh additional beneficiaries need to be covered under supplementary nutrition programme. The W&CD Department may therefore examine the matter and suggest remedial action.
[Action- W. & C.D. Department]
- ❖ The reports received from the Districts reveal that **9088** persons have not received Old age pension/Widow pension. It requires a detailed field verification and substitution in case of death and migration. This has been reiterated time and again. In spite of repeated request, compliance on this score is not forthcoming. Hence, the Collectors should expedite this and complete the substitution *immediately* and report compliance.
[Action- All concerned Collectors & W. & C.D. Deptt.]
- ❖ It is seen from the reports that **1731** habitations need provision of Safe Drinking Water immediately. R.D. and H. & U.D. Department should verify the position as claimed by Districts and expedite response in the matter.
[Action- Rural Development and H & U.D. Department]
- ❖ **42** main bread earners are suffering from prolonged illness. Collectors of *Keonjhar & Nuapada* should provide them Food Assistance if not provided and send specific compliance positively.
[Action- Concerned Collectors & H. & F.W. Department]

Analysis and Inference on feedback
[For the fortnight ending 30th November 2009]

(i) **Job Seekers**

- ❖ All Collectors except *Jajpur, Kendrapara & Koraput* have reported that there was no job seekers available for wage employment without work in the district. Panchayati Raj Department, which is supervising implementation of Orissa Employment Generation Scheme, may cross check.
[Action- Panchayati Raj Department]

- ❖ The report of Collector *Jajpur, Kendrapara & Koraput* indicates existence of **291,215 & 145** numbers of job seekers respectively without work during the fortnight. The Collectors must make required interventions through existing schemes for providing them with wage employment. The specific action taken in this regard should be intimated.

[Action- Collectors as above]

(ii) Food Security

- ❖ Reports show that **14** retail outlets have not lifted their stock during the fortnight. The Collectors of *Cuttack & Gajapati* should pay special attention to minimize the numbers in the next fortnight.

[Action- Collectors as above]

- ❖ **1806** beneficiaries have not lifted their entitlement under Annapurna Yojana. **973,321,243 & 140** families those who have not lifted their entitlement are in *Bhadrak, Angul, Jagatsinghpur & Ganjam* districts respectively where the nos. is comparatively high.

[Action- Collectors above]

- ❖ Similarly **15401** families have not lifted their entitlement under Antodaya Anna Yojana. This has decreased in comparison to the figure of **219036** relating to 1st fortnight of November 2009. The figures in the districts of *Balasore, Ganjam, Bhadrak, Mayurbhanj, Gajapati and Rayagada* are comparatively high.

[Action- Collectors above]

(iii) Social Security & Malnutrition

- ❖ **32** ICDS centers are not functioning during the fortnight in the district of *Angul & Nawarangapur*.

[Action- Collectors above]

- ❖ The percentage of Gr.III and Gr.IV children is high in the districts like *Keonjhar, Rayagada, Nawarangpur, Nuapara, Jharsuguda, Kalahandi & Balasore*.

[Action- Collectors as above and W. & C.D. Department]

- ❖ It is seen that **7562** persons have not received their Old age pension/Widow pension. Collectors of *Bolangir, Angul, Mayurbhanj, Nayagarh & Gajapati* districts must pay personal attention to this aspect where they are having the maximum no. of persons not receiving the pension.

[Action- Collectors as above]

(v) **Health Care and Safe Drinking Water**

- ❖ There is no death in Malaria and 2 in Diarrhea during the fortnight under report.

[Action- H & F.W. Deptt.]

- ❖ At the end of the 1st fortnight of November 2009, there were 1731 habitations without safe drinking water. But now the collectors have reported that this number is 1708. However, it calls for immediate intervention of Collectors of *Kendrapara, Ganjam, Angul, Deogarh, Balasore & Boudh* where the figures are comparatively high.

- ❖ The Collectors of aforesaid districts are requested to furnish the details i.e. Name, Tahasil and Block of such habitations at the time of submission of compliance in the next fortnight.

[Action- Collectors as above, Rural Development Department / H & UD Department]

(V) **Present Drought Situation**

Government in Revenue and Disaster Management has declared 3264 villages and 41 wards under 15 Districts as Drought affected having sustained crop loss of 50% and above during the year 2009(Kharif). Earlier Rs.20.00 Crore was allotted in favour of Agriculture Department for distribution of input subsidy. In the meanwhile, another Rs.30.00 Crore has been released in favour of Agriculture Department for providing input assistance to the farmers who have sustained crop loss of 50% and above due to Drought and Pest attack. Further, a report on Drought and Pest attack has also been submitted to the Ministry of Agriculture and Ministry of Home Affairs, Government of India seeking an assistance of Rs.843.965 Crore out of NCCF towards Drought Mitigation Measures.

Suggestions

- ❖ The objective of collecting information from grass root level involving the Panchayati Raj Institutions was to have a broad picture of the constraints and deficiencies if any in implementation of various schemes. In the absence of the involvement and commitment from all concerned it will be a futile fortnightly exercise.

[Action- All Collectors]

- ❖ In view of the availability of job seekers to the tune of 651, Collectors should try to cover the job seekers under the various existing wage employment programmes. They may seek further Funds for starting labour intensive works in the event of inadequacies.

[Action- Panchayati Raj Department]

- ❖ The Collectors concerned should immediately ascertain as to why some beneficiaries under Annapurna Yojana and Antodaya Arna Yojana have not lifted the stock.

[Action- All Collectors]

- ❖ The Collectors have reported that **0.64** lakh additional beneficiaries need to be covered under supplementary nutrition programme. The W&CD Department may therefore examine the matter and suggest remedial action.

[Action- W. & C.D. Department]

- ❖ The reports received from the districts reveal that **7562** persons have not received Old age pension/Widow pension. It requires a detailed field verification and substitution in case of death and migration. This has been reiterated time and again. In spite of repeated request, compliance on this score is not forthcoming. Hence, the Collectors should expedite this and complete the substitution *immediately* and report compliance.

[Action- All concerned Collectors & W. & C.D. Deptt.]

- ❖ It is seen from the reports that **1708** habitations need provision of Safe Drinking Water immediately. R.D. and H. & U.D. Department should verify the position as claimed by Districts and expedite response in the matter.

[Action- Rural Development and H & U.D. Department]

- ❖ **43** main bread earners are suffering from prolonged illness. Collectors of *Keonjhar & Nuapada* should provide them Food Assistance if not provided and send specific compliance positively.

[Action- Concerned Collectors & H. & F.W. Department]

Employment Generation

Three other aspects which call for urgent attention in a drought situation are employment generation, drinking water supply and fodder availability. Generation of additional employment through detailed planning is required to arrive at a reasonable and realistic estimate of the total labour force required so as to have a realistic picture of 'man- days' which would be required to be generated to cater to the employment needs to each group of villages. In mono-cropped areas without any other worthwhile irrigation facilities, work has to be provided till the onset of the next monsoon season.

Mitigation Measures

In response to the serious drought situation that prevails in these 15 Districts, the State Government has undertaken different relief measures which include distribution of input subsidy, ensuring supply line of food, provision of drinking water, provision of immediate irrigation facilities, distribution of fodder in cattle camps, etc. These measures will continue till the resumption of agricultural operations in the middle of June next year.

An amount of Rs. 50.00 crore out of CRF has been sanctioned and released to Agriculture Department to provide agriculture input subsidy to affected farmers who have sustained crop loss of 50% and above.

NADAMS Report

The National Agricultural Drought Assessment and Management system (NADAMS) has been developed by the Department of space for the Department of Agriculture and Co-operation, and is primarily based the monitoring of vegetation status through National Oceanic and Atmospheric Administration (NOAA) Advanced Very High Resolution (AVHR) data. The drought assessment is based on a comparative evaluation of satellite observed green vegetation cover (both area and greenness) of a District in any specific time period, with that of any similar period in previous years. This comparative evaluation helps in fixing the current season in the scale of historic agricultural situations.

National Remote Sensing Centre, Hyderabad, has carried out monthly assessment of agricultural drought and crop condition during Kharif season under National Agricultural Drought Assessment and Monitoring System (NADAMS) project for each State. In their monthly drought monitoring report for October, 2009, it has been stated that the agricultural situation is found to be normal in the State of Orissa. But the ground reality in most parts of the State is different. The crop loss/drought situation for kharif (Autumn paddy) in most of the Districts has originated from the deficiency in precipitation, erratic and sporadic rainfall over extended period during June, August and September, causing extensive loss to paddy crop.

This has been informed to the Director, National Remote Sensing Centre (NRSC) Balanagar, Hyderabad with request to include the State of Orissa in the list of affected States immediately by validating the ground data with the satellite technology being currently employed by the NRSC to list the districts under agriculture drought situation of different intensities caused by reduced / delayed sowings and poor crop growth. Further as required by NRSC information in soft copy on geographic co-ordinates of the villages affected by drought has been provided for validation exercise and analysis.

Impact on Irrigation

Poor rainfall has affected all irrigation projects in the drought affected region. The live water storage in all major reservoirs has gone down. Not only has the low level of water storage reduced the water for irrigation and impacted the cultivation, it has a major impact on the availability of drinking water in these Districts. The water storage position for major and medium irrigation projects is given in **Annexure-B**.

Impact on Kharif Crop

Agriculture in Orissa is mainly rain-fed. Only 33% of the cultivated areas of 61.80 lakh hectares have irrigation facilities from various sources some of which are again dependent on rainfall. The rivers of the State are rain-fed and they receive their runoff mainly from the monsoon rainfall. The climate of the State varies from moist, sub-humid to dry sub-humid. The State is divided into 10(ten) agro-climatic zones with varied characteristics.

Agricultural operations in Orissa traditionally start with the pre-monsoon showers in the month of May. The total cultivated area is about 61.80 lakh hectares comprising 29.16 lakh hectares (47.15%) highlands, 17.55 lakh hectares (28.39%) medium and 15.11 lakh hectares (24.44%) low land. About 20 lakh hectares (32.4%) is covered by irrigation from various sources and the remaining 41.80 lakh hectares (67.6%) depend on rains only.

Agriculture and allied sectors continues to be the mainstay of the State's economy with contribution of about 26% to NSDP (at 1999-2000 prices).There are

40.67 lakh operational holdings in Orissa with 50.81 lakh hectares of area. Small and marginal holdings account for 83.8% with 53.12% of total area. Remaining 16.2% of holdings belong to semi-medium, medium and large categories with 46.88% of total area. Paddy is the major crop in the State and accounts for about 95% of the total food-grain. It occupies about 70% of Kharif cropped area and accounts for over 90 per cent of Kharif food-grain production in the State. Varieties of paddy are grown in the State ranging from the high yield early paddy to the traditional late paddy with the base period varying from 90 to 150 days.

With more than 85 per cent of the population depending on agriculture, most of them being marginal farmers, hidden calamity like soil acidity is a major constraint for crop production. In Orissa almost 70% of arable lands are acidic i.e. soils of nearly 40.0 lakh hectares suffer from soil acidity causing plant nutritional problems, fungal diseases and poor utilization of bio-fertilizers. Of these acid soils, nearly 32% i.e. 13.0 lakh hectares are having $\text{PH} < 5.5$. These soils suffer from phosphate fixation, low base saturation, deficiency of boron and Molybdenum, low organic carbon and low water holding capacity. The problem of soil acidity is mostly confined to uplands and to certain extent in medium lands. The productions of upland paddy grown in such lands are affected because of soil acidity.

A scientific study on desertification and land degradation conducted by Indian Space Application Centre (ISRO) suggests that Orissa is among the few States that top desertification and degradation process in India. A total of 54,69,336 hectare land in Orissa, standing at 5.18 percent of the total geographical area of the State, has witnessed degradation. Water erosion has taken place over 32 lakh hectare, vegetal degradation on more than 20 lakh hectare and water logging over 24 lakh hectares of land in the State.

Water erosion, vegetal degradation, salinity, eolian, water logging as well as rocky/ barren process are the major components of desertification and land degradation. In view of the fact that historically, Rajasthan, Gujarat and Jammu & Kashmir are on the desertification map as the first two States have vast arid land and Jammu & Kashmir has cold desert, Orissa is the only State that has recorded the most changes caused by degradation of different kinds.

Apart from these, germination of alien invasive and toxic weeds that have potential to seriously impact crop productivity, environment and health has posed severe problem. Recently, Orissa has reported its first incidence of the highly toxic Horse Nettle germination. Horse Nettle has high levels toxicity and can particularly affect livestock while grazing. Consumption of the weed can cause health problems ranging from diarrhoea to paralysis. The import of wheat in 1960's brought parthenium hysterophorus which became widespread today.

The crop calendar in case of paddy has several main stages such as seedling and nursing, transplantation, vegetative stage and harvesting stage. Large amount of water is required during transplantation and during growing stage. Paddy is an aquatic angiosperm, which needs about 15 cm of standing water for survival. Water requirement of paddy is also influenced to a large extent by soil moisture and temperatures. Thus the total water requirement is dependent on the stage of growth and evaporates transpiration characteristics. The effects of scanty and erratic rainfall on kharif crops are:-

- i) Heavy weed infestation and poor plant stand in autumn paddy
- ii) Late transplanting of medium and later paddy with aged seedlings
- iii) Drying of grains and panicles and reduction in production of autumn rice
- iv) Poor plant stand, reduced growth and tillering of late varieties
- v) Substantial reduction in ground water level resulting in drinking water scarcity
- vi) Adverse effect on economic condition of farmers with reduced purchasing power and ability to pay the cost of required inputs, even water charges for running L.I points to salvage the standing crops.
- vii) Inability of farmers to repay the crop loans.

The targets of production and productivity of different crops in the State have been fixed as follows for Kharif, 2009.

Crop	Area (^{'000} Hect)	Production (^{'000} tonnes/bales)	Productivity (Kg/hect)
Paddy	3680	8063	2191
Maize	220	495	2250
Ragi	193	172	890
Jowar	13	9	690
Bajra	4	3	750
Small Millets	20	10	500
Total Coarse Cereals	450	689	1531
Total Cereals	4130	8752	2119
Arhar	140	118	845
Mung	240	102	425
Biri	285	123	430
Other Pulses	84	47	560
Total Pulses	749	390	521
Total Foodgrains	4879	9142	1874
Groundnut	115	175	1520
Sesamum	239	113	473
Castor	13	9	660
Niger	105	42	400
Sunflower	2	1	700
Total Oilseeds	474	340	717
Jute	12	120	1802
Mesta	22	104	850
Sunhemp	10	50	892
Cotton	75	209	474
Total Fibres	119	483	730
Sweet Potato	30	270	9000
Other Vegetables	270	3258	12066
Total Vegetables	300	3528	11759
Chilli	34	33	975
Turmeric	25	64	2553
Ginger	17	36	2142
Total Spices	76	133	1755
Grand total	5848		

But the deficient and erratic rainfall and consequential moisture stress led to adverse effect on both paddy and non-paddy crops particularly in western Districts during Kharif 2009.

Crop Loss Assessment

The detailed procedure for crop loss assessment has been laid down in Orissa Relief Code.

As per Paragraph 28 of Orissa Relief Code, crop loss of paddy, ragi, maize and other major crop shall be taken up by the Revenue field staff every year through eye estimation and crop cutting experiments.

Sample crop cutting experiments are taken up in a representative village in a Gram Panchayat even if no village in the GP appears to have crop loss of 50% and more as per eye estimation survey.

The Special Relief Commissioner compiles the District figures in accordance with the detailed rules and procedures and furnishes the reports with views in consultation with the Revenue Divisional Commissioners of the State.

Procedure for Crop loss assessment (As per resolution No.13703-R dt.23.03.1994)

The procedure of crop loss assessment and sample crop cutting experiment is given below.

- I. Effective steps should be taken by the Special Relief Commissioner for faithful recording of rainfall data in as many rain gauges as possible for identification of areas having inadequate rainfall.
- II. Crop assessment has to be undertaken by the Revenue Inspector in respect of paddy, ragi, maize and any other major crop through eye estimation and crop cutting experiments.
- III. The eye estimation survey has to be undertaken in respect of every village commencing from the month of October or even earlier when a major crop is ready for harvest. A major crop is one, which covers 25% of the cultivated area of the village. The same procedure should be adopted in respect of three varieties of paddy (Autumn, Winter and Rabi). Crop cutting experiments may be taken up only in the village where the crop loss appears to be more than 50%

on eye estimation survey. However, sample crop cutting experiments may also be undertaken in the village where it becomes doubtful for the R.I. to determine the loss i.e., 50 per cent or less through eye estimation. If sample crop cutting experiments indicate loss to be 50 per cent or more, crop cutting experiments may be undertaken in that village to determine the actual loss. In case no village in a Grama Panchayat appears to have crop loss of 50 per cent and more as per eye estimation survey, at least one sample crop cutting experiment may be undertaken in a representative village of that Grama panchayat. While framing a crop-cutting programme for Revenue Inspector, in the affected village, Tahasildars may take assistance of Statistical Field Surveyor of Directorate of Economics and Statistics and Village Agricultural Workers of Directorate of Agriculture and Food Production, Orissa. The crop cutting experiment must be done in the presence of two important persons of the village. Tahasildar will draw up the programme of crop cutting experiment and intimate the same to the District Statistical Officer and District Agricultural Officer for technical assistance.

- IV. The crop loss should be quantified in two categories: (a) from 50 per cent to 74 per cent, (b) 75 per cent and above.
- V. The Revenue Supervisor and the Tahasildar should so arrange among themselves that both of them shall check the assessment made by the Revenue Inspector in every village subject to the condition that the Tahasildar shall test – check the crop survey in not less than 10 per cent of the number of villages.
- VI. Similarly, D.S.O. and under his direction S.A. should so arrange among themselves to test-check 2 per cent of the number of villages. Similarly, D.A.O. and under his direction Junior Agricultural Officer should so arrange among themselves to test-check not less than 3 per cent of the number of villages. All these supervision must be done when the crop cutting experiment is going on.
- VII. The Tahasildar will compile village wise list according to the Gram Panchayats of the crop loss under the aforesaid two categories i.e. villages having crop loss of 50 per cent to 74 per cent and those having crop loss of 75 per cent and above. Such list may be furnished to the Sub-Collector as per the time schedule indicated below:

- | | | |
|-----|----------------------|------------------------------|
| (a) | Autumn Paddy | End of October |
| (b) | Maize and Ragi | End of November |
| (c) | Winter Paddy | End of December |
| (d) | Summer Paddy | End of May |
| (e) | Any other major crop | According to time of harvest |
- (viii) The Sub-Collector shall undertake a test check of at least 2 per cent of the total number of villages reported to have crop loss by the Tahasildar. The Sub-Collector shall compile the sub-divisional list in the above manner and shall furnish the same to the Collector.
- (ix) The Collector shall undertake a test check in at least 1 per cent of the villages reported to have crop loss before the district list is compiled.
- (x) The survey envisaged in the foregoing paragraphs shall be completed as per the time schedule indicated in para. (vi) and the Collector shall furnish the consolidated list of the District to the Board of Revenue (Special Relief) the Revenue Divisional Commissioner and the Revenue Department by the 15th of January in respect of Autumn and Winter Paddy, Ragi and Maize, 15th of June for Summer Paddy and for any other major crops, within a period of 15 days from the date of harvest along with a report specifying other necessary details. The Board of Revenue (S.R) shall compile the District figures and shall furnish the final report with its views for the entire State by the 31st of January in respect of Autumn and Winter Paddy, Ragi and Maize. As regards the Summer Paddy the report should reach Government by 30th June and for the other major crops, the report should reach Government within a period of one month from the date of harvest for consideration of Government.
- (xi) The Board of Revenue (SR) shall be competent to issue detailed instructions to the field officers for the implementation of the above decision of Government and for the maintenance in different Revenue Officers of such registers as are deemed necessary.

- (xii) Notwithstanding the procedure laid down above in case of failure of rains or inadequate rainfall particularly in the months of September or October which are the crucial months for crop growth the Board of Revenue (SR) shall furnish an adhoc report to Government with an estimate of anticipated crop loss so as to enable Government to undertake relief measures, if required, before the compilation of the final report by the Board of Revenue (SR) on crop assessment survey.

Procedure for sample crop cutting experiment

1. Preliminary

The procedure laid down in Revenue Department Resolution No.13703-R dated the 23rd March 1994 should be followed in the matter of crop assessment of Paddy, Ragi, Maize and any other major crops.

The eye estimation survey has to be undertaken in respect of every village commencing from the month of October or even earlier when a major crop is ready for harvest. Only in such villages sample crop loss is anticipated due to inadequate rainfall or due to other reasons to be less than 50% of the normal yield.

The standard yield rate should be fixed taking into the consideration the average yield of last six years, which may include drought years.

2. Programme

The Tahasildar shall draw up a programme of villages Gram Panchayat-wise in which sample crop cutting experiments are to be undertaken in consultation with strict Statistical Officer and District Agriculture Officer for technical assistance. It may cover all the villages where crop loss is expected to be 50% or more according to eye estimation. In case no village in a Gram Panchayat appears to have crop loss of 50% and more as per eye estimation survey at least one representative village of the Gram Panchayat may be included in the programme for taking up cutting experiments. According to the programme drawn up by the Tahasildar, the Revenue Inspector and Supervisor will take up the crop cutting experiment. The Tahasildar shall furnish a list to the Sub-Collector and the Sub-Collector in turn shall furnish the consolidated list of the Sub-Division to the Collector.

3. Selection of fields for carrying out experiments:

The experiments shall be carried on representative fields with the consent of the owner in the presence of two important persons of the village. The representative field is to be selected by the Revenue Inspector himself is not less than three fields taken at random in a village. While supervising the experiments the supervising Officer if consider that the field selected by the Revenue Inspector is not representative, he may select another field and direct the Revenue Inspector to undertake sample survey in that field. This fact shall be indicated by the Revenue Inspector. Fields on which the crops are fairly good shall be avoided.

4. Area to be covered and the method of experiment

The area from which the crop will be cut shall be a square having the length and breadth of 25 links each i.e. $1/160^{\text{th}}$ of an acre. Care should be taken to see that all the standing crop grown in this square is cut. This may be done in the presence of person who has raised the crop and two important persons of the village.

5. Method of ascertaining the yield:

As soon as the crop is cut, it should be brought by the grower to his threshing floor and the main produce shall be separated from the bye-product and properly cleaned. The main crop shall then be weighed and record kept after which the main produce and bye product shall be made over to the owner. Ordinarily one tenth of the weight should be reduced towards drainage.

6. Supervision

The procedure for supervision as laid down in the aforesaid resolution shall be followed and necessary checks undertaken by the officers concerned.

7. Crop cutting Register

The Revenue Inspector shall maintain a crop cutting register. All columns of the register should be carefully filled in by the Revenue Inspector. A copy of such registers in respect of every village shall be submitted to the Tahasildar.

8. Tahasildar Register of Crop Cutting Experiments:

(a) On receipt of the copies of Crop cutting registers from the Revenue Inspectors, the Tahasildar shall bind them Gram Panchayat-wise into a register which shall be preserved for a period of 12 years.

(b) Tahasildar shall compile a village-wise list according to Gram Panchayats having crop loss of 50% and 75% and above and shall furnish the same to the Sub-Collector.

9. Report of the Sub-Collector to the Collector

On receipt of the report of the Tahasildar, the Sub-Collector shall compile Block wise figures and shall furnish the same to the Collector.

10. Reports of the Collector

The Collector shall compile the statistical figures of crop loss and furnish the consolidated list of the District to the Revenue Divisional Commissioner, Special Relief Commissioner and Revenue and Disaster Management Department.

Crop Cutting Experiment Report

Crop cutting experiment in respect of autumn paddy is already completed in the State. **The report reveals that 3264 villages and 41 wards of 15 Districts have sustained crop loss of 50% and above.**

Declaration of Drought

As per Paragraph 29 of Orissa Relief Code, declaration of drought in respect of a particular area shall be made by Government, after taking into consideration the crop assessment report submitted by the Collector together with the views of Revenue Divisional Commissioners and Special Relief Commissioner.

On the basis of reports received from Collectors, the State Government have declared 3264 villages under 70 Blocks and 41 wards under 9 ULBs of following 15 Districts as drought affected areas having sustained crop loss of 50% and above for Autumn Paddy during the year 2009.

<i>Districts affected by Drought</i>	Anugul, Baragarh, Deogarh, Dhenkanal, Jharsuguda, Kalahandi, Kandhamal, Koraput, Malkangiri, Mayurbhanj, Nawarangpur, Nuapada, Sambalpur, Subarnapur, Sundargarh
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Sl.	Name of the District	No. of Blocks/ULBs in the District		No. of Blocks/ULBs affected		No. of G.Ps containing affected villages	No of villages in the District
		Blocks	ULBs	Blocks	ULBs		
1	2	3	4	5	6	7	8
1	Angul	8	3	8	1	66	1910
2	Bargarh	12	3	2		12	1207
3	Deogarh	3	1	3		32	875
4	Dhenkanal	8	3	2		27	1215
5	Jharsuguda	5	3	5	3	78	348
6	Kalahandi	13	3	4		26	2236

7	Kandhamal	12	2	1		5	2546
8	Koraput	14	4	6		47	2028
9	Malkangiri	7	2				1045
10	Mayurbhanj	26	4	5		53	3950
11	Nawarangpur	10	2	2		8	901
12	Nuapara	5	2	5	1	74	663
13	Sambalpur	9	5	9		109	1322
14	Subarnapur	6	3	1		9	959
15	Sundargarh	17	4	17	4	206	1764
Grand Total		155	44	70	9	752	22969

Contd.

Sl.	Name of the District	No. of villages sustained crop loss				Total		Grand Total
		Non-irrigated		Irrigated		Village	Ward	
		Village	Ward	Village	Ward			
1	2	9	10	11	12	13	14	15
1	Angul	242				242		242
2	Bargarh	27		1		28		28
3	Deogarh	193				193		193
4	Dhenkanal	27				27		27
5	Jharsuguda	255	12	34	2	289	14	303
6	Kalahandi	69		6		75		75
7	Kandhamal	16				16		16
8	Koraput	85		25		110		110
9	Malkangiri	133				133		133
10	Mayurbhanj	209		8		217		217
11	Nawarangpur	42				42		42
12	Nuapara	219	4			219	4	223
13	Sambalpur	567				567		567
14	Subarnapur	57				57		57
15	Sundargarh	995	23	54		1049	23	1072
Grand Total		3136	39	128	2	3264	41	3305

Block-wise population affected by drought is given in Annexure- D.

Production Loss

Crop loss of 50% and above due to drought

Sl.	District	Non-Irrigated		Irrigated		Total no. of villages / wards	Total area affected in ha.
		Villages / wards	Area [in hect.]	Villages / wards	Area [in hect.]		
1	2	3	4	5	6	7	8
1	Angul	241	9585.54	1	16.00	242	9601.54
2	Bargarh	27	4540.99	1	105.26	28	4646.25
3	Deogarh	193	5914.00	0	0.00	193	5914.00
4	Dhenkanal	27	424.18	0	0.00	27	424.18
5	Jharsuguda	267	39666.54	36	7113.85	303	46780.49
6	Kalahandi	69	46089.00	6	908.00	75	46997.00
7	Kandhamal	16	6.00	0	0.00	16	6.00
8	Koraput	85	23283.68	25	8814.71	110	32098.39
9	Malkangiri	116	35208.90	17	3945.82	133	39154.72
10	Mayurbhanj	197	2597.00	20	424.00	217	3021.00
11	Nabarangpur	42	3039.20	0	0.00	42	3039.20
12	Nuapada	221	12244.79	2	95.53	223	12340.32
13	Sambalpur	545	14553.50	22	321.00	567	14874.50
14	Subarnapur	57	4909.05	0	0.00	57	4909.05
15	Sundargarh	1018	83938.00	54	2226.00	1072	86164.00
Grand Total		3121	286000.47	184	23970.17	3305	309970.64

Contd..

Sl.	District	Normal yield rate [Qtl/ hectare]	Normal yield [in qtl.]	Actual yield [in qtl.]	Loss [in qtl.]	Total loss [Rs. in crore]
1	2	9	10	11	12	13
1	Angul	14.25	136821.9	34205.486	102616.46	10.26
2	Bargarh	15.97	74200.61	18550.153	55650.459	5.57
3	Deogarh	13.87	82027.18	20506.795	61520.385	6.15
4	Dhenkanal	13.83	5866.409	1466.6024	4399.8071	0.44
5	Jharsuguda	17.96	840177.6	210044.4	630133.2	63.01
6	Kalahandi	12.75	599211.8	149802.94	449408.81	44.94
7	Kandhamal	15.45	92.7	23.175	69.525	0.01
8	Koraput	14.68	471204.4	117801.09	353403.27	35.34
9	Malkangiri	14.14	553647.7	138411.94	415235.81	41.52
10	Mayurbhanj	15.96	48215.16	12053.79	36161.37	3.62
11	Nabarangpur	13.64	41454.69	10363.672	31091.016	3.11
12	Nuapada	14.59	180045.3	45011.317	135033.95	13.50
13	Sambalpur	18.59	276517	69129.239	207387.72	20.74
14	Subarnapur	15.66	76875.72	19218.931	57656.792	5.77
15	Sundargarh	13.62	1173554	293388.42	880165.26	88.02
Grand Total			4559911.8	1139977.9	3419933.8	341.99

Media Reports

National and local newspapers have covered extensively about the crop loss situation due to deficient rainfall in different Districts. A few news clippings from different newspapers are given at **Annexure-C**.

Rural vulnerability to the impact of drought

The areas affected by drought are mostly located in the tribal belts of Western Orissa with most of the population belonging to the Scheduled Caste and Scheduled Tribe Communities. The average size of land holding of the poor people is less than one hectare. As per the wholesale Price index released by the Union Ministry of Commerce & Industry for the week ending 5th December 2009, the annual rate of the inflation for food article is 19.95%. The prices of the food articles like moong, arhar, wheat, rice and potato have increased considerably. As per the report, potato is higher in price at 136.39% while pulses registered rise of 40.81%. Price of vegetables as a group have increased by 41.09%. Onion which is poor man's daily necessity proved to be very costly with 15.42% high over the last year.

Such enormous price rise has adversely hit the drought affected people of Orissa. They are badly affected on account of price hike. Low Kharif productions due to the poor monsoon have broken the backbone of the rural economy. Sometimes it is difficult on the part of the poor people with failing health to earn Rs.100.00 per day despite their best efforts. To add fuel to the fire, climate change has its adverse effect in the area. People of the affected areas are at a disadvantage from various angles starting from inability to work more in the field, low income, and procuring ration at a higher price.

Drought has affected the availability of foodgrains with the family. It has caused agricultural employment to decline. It has increased the incidence of debt at the household level both for the purpose of production and consumption. If we look at the proportion of rural-urban population, the 15 drought affected Districts have 86 per cent rural population. It means that more than four fifths of the population in these Districts are dependent upon agricultural and allied activities.

The total population of each of the 15 Districts and the share of rural population is indicated in the table below.

Share of Rural population

Sl.	Name of the District	Total Population	Rural Population	% of Rural Population
1	Angul	11,39,341	9,80,954	86.09
2	Baragarh	13,45,601	12,42,101	92.31
3	Deogarh	2,74,095	2,54,010	92.67
4	Dhenkanal	10,65,983	9,73,196	91.30
5	Jharsuguda	5,14,190	3,28,872	63.96
6	Kalahandi	13,34,372	12,34,095	92.48
7	Kandhamal	6,47,912	6,03,819	93.19
8	Koraput	11,77,954	9,79,835	83.18
9	Malkangiri	4,60,232	4,45,622	92.79
10	Mayurbhanj	22,21,782	20,66,375	93.01
11	Nabarangpur	10,18,171	9,58,945	94.18
12	Nuapada	5,30,524	5,00,495	94.34
13	Sambalpur	9,23,755	6,69,483	72.47
14	Subarnapur	5,40,659	5,00,594	92.59
15	Sundargarh	18,29,412	12,00,520	65.62
Total		1,50,43,983	1,29,38,916	86.00

It could be said that the drought has hit about one and half crore population in these Districts. It has brought down the levels of their purchasing power, nutrition, and social consumption. The information with regard to the extent of damage due to the natural calamity is given in the prescribed **Format-II**.

Format-I
District-wise Rainfall Data
Month : JUNE, 2009

Sl.	Name of the affected districts	Rainfall during the calamity			Rainfall during the corresponding period in the last three years						[Rainfall in mm]		
		2009			2008			2007			2006		
		Actual	Normal	Deviation	Actual	Normal	Deviation	Actual	Normal	Deviation	Actual	Normal	Deviation
1	Angul	53.8	225.1	-76.1	371.4	225.1	65.0	225.8	225.1	0.3	160.3	225.1	-28.8
2	Bargarh	13.8	205.6	-93.3	271.3	205.6	31.9	368.8	205.6	79.4	140.5	205.6	-31.7
3	Deogarh	63.0	242.4	-74.0	372.0	242.4	53.5	130.7	242.4	-46.1	122.9	242.4	-49.3
4	Dhenkanal	90.1	225.7	-60.1	301.7	225.7	33.7	230.0	225.7	1.9	140.0	225.7	-38.0
5	Jharsuguda	117.4	218.8	-46.3	281.4	218.8	28.6	250.0	218.8	14.3	108.0	218.8	-50.6
6	Kalahandi	68.8	240.4	-71.4	348.9	240.4	45.1	456.1	240.4	89.7	154.8	240.4	-35.6
7	Kandhamal	111.8	207.9	-46.2	225.7	207.9	8.5	465.9	207.9	124.1	249.8	207.9	20.2
8	Koraput	82.6	206.8	-60.1	197.6	206.8	-4.5	534.6	206.8	158.5	183.5	206.8	-11.3
9	Malikarajin	84.4	212.2	-60.2	280.8	212.2	32.3	387.3	212.2	82.5	78.9	212.2	-62.8
10	Mayurbhanj	70.0	265.8	-73.7	666.8	265.8	150.9	231.0	265.8	-13.1	261.7	265.8	-1.5
11	Nawarangpur	185.9	251.8	-26.2	283.4	251.8	12.5	590.3	251.8	134.4	163.2	251.8	-35.2
12	Nuapara	87.5	210.3	-58.3	168.8	210.3	-19.7	345.0	210.3	64.1	117.0	210.3	-44.4
13	Sambalpur	73.9	221.0	-66.6	410.6	221.0	85.8	288.1	221.0	30.4	132.5	221.0	-40.1
14	Sonepur	85.7	217.4	-60.6	353.2	217.4	62.5	445.2	217.4	104.8	134.5	217.4	-38.1
15	Sundargarh	70.5	237.4	-70.3	392.6	237.4	65.4	171.7	237.4	-27.7	106.4	237.4	-55.2

Format-I
District-wise Rainfall Data
Month : JULY, 2009

Sl.	Name of the affected districts	Rainfall during the calamity			Rainfall during the corresponding period in the last three years					
		2009			2008			2007		
		Actual	Normal	Deviation	Actual	Normal	Deviation	Actual	Normal	Deviation
1	Angul	637.0	347.7	83.2	269.9	347.7	-22.4	240.3	347.7	-30.9
2	Bargarh	702.4	397.2	76.8	303.9	397.2	-23.5	260.3	397.2	-34.5
3	Deogarh	456.1	447.7	1.9	342.3	447.7	-23.5	397.4	447.7	-11.2
4	Dhenkanal	661.7	317.9	108.1	275.0	317.9	-13.5	255.1	317.9	-19.7
5	Jharsuguda	503.8	385.8	30.6	440.6	385.8	14.2	435.0	385.8	12.8
6	Kalahandi	913.1	327.7	178.6	304.2	327.7	-7.2	241.4	327.7	-26.3
7	Kandhamal	663.0	325.1	165.5	238.9	325.1	-26.5	181.6	325.1	-44.1
8	Koraput	436.5	375.6	16.2	229.4	375.6	-38.9	205.4	375.6	-45.3
9	Malenagiri	490.0	465.7	5.2	477.9	465.7	2.6	164.4	465.7	-64.7
10	Mayurbhanj	284.3	337.3	-15.7	295.1	337.3	-12.5	541.3	337.3	60.5
11	Nawarangpur	615.8	356.6	72.7	365.4	356.6	2.5	370.1	356.6	3.8
12	Nuapara	697.1	347.1	100.8	193.7	347.1	-44.2	356.7	347.1	2.8
13	Sambalpur	638.4	429.5	48.6	494.5	429.5	15.1	378.7	429.5	-11.8
14	Sonepur	917.2	399.6	129.5	361.8	399.6	-9.5	206.5	399.6	-48.3
15	Sundargarh	395.8	386.4	2.4	423.6	386.4	9.6	482.7	386.4	19.7
								435.9	386.4	12.8

[Rainfall in mm]

Format-I
District-wise Rainfall Data
Month : AUGUST, 2009

Sl.	Name of the affected districts	Rainfall during the calamity						Rainfall during the corresponding period in the last three years					
		2009			2008			2007			2006		
		Actual	Normal	Deviation	Actual	Normal	Deviation	Actual	Normal	Deviation	Actual	Normal	Deviation
1	Angul	271.9	357.5	-23.9	283.5	357.5	-20.7	225.3	357.5	-37.0	566.8	357.5	58.5
2	Bargarh	210.0	374.4	-43.9	410.8	374.4	9.7	245.5	374.4	-34.4	871.7	374.4	132.8
3	Deogarh	245.8	443.4	-44.6	322.1	443.4	-27.3	315.4	443.4	-28.9	466.4	443.4	5.2
4	Dhenkanal	226.1	344.8	-34.4	348.9	344.8	0.6	270.9	344.8	-21.4	503.4	344.8	46.0
5	Jharsuguda	274.4	382.9	-28.3	489.8	382.9	27.9	336.2	382.9	-12.2	457.4	382.9	19.5
6	Kalahandi	367.9	355.4	0.7	733.7	355.4	106.4	689.7	355.4	94.1	819.8	355.4	130.7
7	Kandhamal	267.1	330.8	-19.3	433.0	330.8	30.9	484.1	330.8	46.3	1030.0	330.8	211.4
8	Koraput	220.4	393.6	-44.0	427.3	393.6	8.5	402.2	393.6	2.2	654.9	393.6	66.4
9	Malakanagiri	308.0	472.8	-34.9	396.3	472.8	-16.2	371.0	472.8	-21.5	856.9	472.8	81.2
10	Mayurbhanj	259.6	359.9	-27.9	278.8	359.9	-22.5	470.0	359.9	30.6	565.8	359.9	57.2
11	Nabarangpur	383.4	407.5	-5.9	635.1	407.5	55.9	721.2	407.5	77.0	579.0	407.5	42.1
12	Nuapara	319.2	327.8	-2.6	349.2	327.8	6.5	353.3	327.8	7.8	619.0	327.8	88.8
13	Sambalpur	328.6	442.4	-25.7	505.0	442.4	14.2	432.3	442.4	-2.3	839.6	442.4	89.8
14	Sonepur	276.0	408.9	-32.5	377.3	408.9	-7.7	274.7	408.9	-32.8	1048.3	408.9	156.4
15	Sundargarh	312.6	393.9	-20.6	379.5	393.9	-3.7	518.0	393.9	31.5	381.0	393.9	-3.3

Format-I
District-wise Rainfall Data
Month : SEPTEMBER, 2009

Sl.	Name of the affected districts	Rainfall during the calamity						Rainfall during the corresponding period in the last three years					
		2009			2008			2007			2006		
		Actual	Normal	Deviation	Actual	Normal	Deviation	Actual	Normal	Deviation	Actual	Normal	Deviation
1	Angul	105.0	217.5	-51.7	348.5	217.5	60.2	390.7	217.5	79.6	170.2	217.5	-21.8
2	Bargarh	145.8	222.6	-34.5	310.9	222.6	39.7	309.4	222.6	39.0	74.0	222.6	-66.8
3	Deogarh	72.6	228.2	-68.2	213.8	228.2	-6.3	426.3	228.2	86.8	134.0	228.2	-41.3
4	Dhenkanal	127.1	220.6	-42.4	327.8	220.6	48.6	426.6	220.6	93.4	273.1	220.6	23.8
5	Jharsuguda	89.2	210.7	-57.7	352.4	210.7	67.3	433.6	210.7	105.8	107.4	210.7	-49.0
6	Kalahandi	100.4	204.6	-50.9	455.4	204.6	122.6	399.1	204.6	95.1	305.0	204.6	48.1
7	Kandhamal	217.0	239.1	-9.2	550.7	239.1	130.3	511.0	239.1	113.7	260.0	239.1	8.8
8	Koraput	122.6	256.3	-52.2	313.0	256.3	22.1	376.7	256.3	47.0	346.6	256.3	35.2
9	Malkangiri	166.9	281.2	-40.6	157.9	281.2	-43.8	471.0	281.2	67.5	353.3	281.2	25.7
10	Mayurbhanj	241.8	262.0	-7.7	281.0	262.0	7.3	471.0	262.0	79.8	335.9	262.0	28.2
11	Nawarangpur	146.1	225.6	-35.2	382.5	225.6	69.6	394.4	225.6	74.8	438.7	225.6	94.5
12	Nuapara	74.0	214.5	-65.5	563.8	214.5	162.9	199.9	214.5	-6.8	101.7	214.5	-52.6
13	Sambalpur	132.7	224.7	-40.9	374.9	224.7	66.8	474.4	224.7	111.1	164.5	224.7	-26.8
14	Sonepur	171.3	226.0	-24.9	348.3	226.0	52.8	333.5	226.0	46.3	128.5	226.0	-43.6
15	Sundargarh	107.5	211.5	-49.2	249.0	211.5	17.7	263.7	211.5	24.7	131.9	211.5	-37.6

Format-II

Extent of Damage due to Natural Calamities

State : Orissa

Nature and period of natural calamity – Drought 2009

Sl.	Item	Details
1	Total number of Districts in the State	30
2	No. and Names of the Districts affected	15
3	Number of Villages affected	3264 Villages & 41 Wards
4	Population affected	
5	Total land area affected (in lakh ha)	
6	Crop Area affected (in lakh ha)	
	(i) Total cropped area affected	4.29
	(ii) Estimated loss to crops (Rs. in lakh)	34199
	(iii) Area where cropped damage was more than 50%	3.09 lakh ha
7	Percentage of area held by SMF	
	(i) In the state as a whole	53.10
	(ii) In the affected districts	62.13
8	Houses damaged	
	(a) No. of houses damaged	
	(i) Fully damaged pucca houses	
	(ii) Fully damaged kutcha houses	
	(iii) Severely damaged pucca houses	
	(iv) Severely damaged kutcha houses	
	(v) Partially damaged houses (pucca+kutcha)	
	(vi) No. of huts damaged	
	(b) Estimated value of damage to houses (Rs. in lakh)	
9	No. of Human lives lost	
10	No. of persons with grievous injuries	
11	No. of persons with minor injuries	
12	Animal lost	
	(a) No. of big animals lost	
	(b) No. of small animals lost	
	(c) No. of poultry (birds) lost	
13	Damage to public properties :	
	(a) In physical terms (sector-wise details should be given – e.g. length of State roads damaged, length of district roads damaged, length of village roads damaged, No. of bridges damaged, No. of culverts damaged, No. of school buildings damaged etc.	
	(b) Estimated value of the damage to public properties	
14	Estimated total damage to houses, crops and public properties.	

Chapter - III

Assistance Sought For

It becomes imperative to identify the critical areas of interventions in order to mitigate the impact of drought on the most vulnerable sections of the society. Following interventions have been projected for drought ameliorative measures on medium and long-term basis.

- Livelihood support
- Gratuitous relief
- Emergency feeding
- Supplementary nutrition support
- Availability of drinking water
- Health measures
- Wage employment
- Animal Resources Sector (Fodder Requirement and Health measure)

Livelihood Support

Monsoon this year has been quite erratic in the State of Orissa. The distribution of rainfall over time and space has serious adverse impact on Kharif crops. Erratic rainfall not only delayed various agricultural operations, it also affected final production and productivity very adversely.

Added to this, there were widespread attacks of Swarming Caterpillars in August and September 2009 in the Districts of Jharsuguda, Deogarh, Sundargarh, Nabarangpur, Malkangiri and Nuapada. Though prompt actions were taken to contain the loss on account of pest attack by providing sprayers and pesticides at 50% of the cost in all Districts, the large scale damage to the standing crops could not be prevented, mainly on account of deficient rainfall. Certain measures are taken immediately to help the farmers of the drought affected area. Suggested measures are enumerated below:

i) Provision of input subsidy.

As per CRF norms, farmers having crop loss of 50% and above are eligible to get input subsidy. As per the Crop Cutting Experiments for autumn paddy, 3305 villages/ wards in 15 districts have suffered crop loss of 50% or more. The total area involved is 3,09,970.64 hectares. The amount of input subsidy required for

disbursement to the farmers of the drought-affected districts is Rs.66.79 crore. The district-wise details are given in **Format –III.**

Since the above assessment has been done taking into account the loss of yield of only autumn paddy, the number of crop affected villages is likely to rise after the crop cutting in respect of winter paddy is completed. Besides, the unseasonal rain that occurred in the month of November, 2009 has caused substantial damage to the ready to harvest winter paddy and vegetable crops. Hence it is anticipated that the requirement of funds for providing input subsidy to the affected farmers may go up to **Rs.150 crore.**

ii) Soil Conservation/ Drought Proofing Measures are taken up in drought affected Districts.

It is proposed to take soil and water conservation/ drought proofing measures in 15 drought affected districts. These measures include construction/ renovation of Water Harvesting Structures, Diversion Weirs, Farm Ponds, Recharge Well, Land Development, Field Bunding, etc. The requirement of funds for the year 2009-10 is **Rs.33.57 crore** whereas the requirement for the year 2010-11 is **Rs.6.13 crore.** Total requirement is **Rs.39.70 crore.** The district-wise details are given below.

Soil conservation measures to be taken in the affected Districts (2009-10)

Sl.	District	Water conservation measures	Field bunding	Land development	Recharge well	Total (Rs. in lakh)
1	Angul	40.0	15.0	60.0	15.0	130.0
2	Bargarh	35.0	30.0	120.0	3.0	188.0
3	Deogarh	20.0	30.0	120.0	9.0	179.0
4	Dhenkanal	80.0	30.0	120.0	7.5	237.5
5	Jharsuguda	20.0	15.0	60.0	22.0	117.5
6	Kalahandi	88.0	30.0	120.0	7.5	245.5
7	Kandhamal	50.0	45.0	180.0	1.5	276.5
8	Koraput	30.0	45.0	180.0	15.0	270.0
9	Malkangiri	30.0	45.0	180.0	3.0	258.0

10	Mayurbhanj	30.0	75.0	300.0	15.0	420.0
11	Nawarangpur	50.0	30.0	120.0	3.0	203.0
12	Nuapada	36.0	45.0	120.0	21.0	222.0
13	Sambalpur	93.2	30.0	120.0	30.0	273.2
14	Subarnapur	24.0	15.0	60.0	3.0	102.0
15	Sundargarh	25.0	30.0	120.0	60.0	235.0
Total		651.2	510.0	1980.0	215.5	3357.2

Soil conservation measures to be taken in the affected Districts (2010-11)

Sl.	District	Water conservation measures (Rs. in lakh)
1	Angul	45.0
2	Bargarh	30.0
3	Deogarh	15.0
4	Dhenkanal	80.0
5	Jharsuguda	15.0
6	Kalahandi	60.0
7	Kandhamal	60.0
8	Koraput	30.0
9	Malkangiri	36.0
10	Mayurbhanj	45.0
11	Nawarangpur	60.0
12	Nuapada	30.0
13	Sambalpur	58.0
14	Subarnapur	24.0
15	Sundargarh	25.0
Total		613.0

iii) Provision of subsidized seeds to drought affected farmers.

With a view to recouping the loss in Kharif, a larger Rabi Programme is mounted. The food-grain production target in Rabi has been fixed at 17.51 MT(9.42 lakh MT of rice, 10.44 MT of cereals, 7.07 MT of pulses). Besides, production of oilseeds is also programmed for 6 MT.

The target of production and productivity of different crops in the State has been fixed as follows for **Rabi, 2009-10**.

Crop	Area (^{'000 Hect)}	Production (^{'000 MT})	Productivity (Kg/hect)
Paddy	340	942	2771
Wheat	26	43	1654
Maize	15	45	3000
Ragi	10	14	1400
Total Cereals	391	1044	2670
Mung	630	284	451
Biri	430	206	479
Kulthi	270	114	422
Gram	55	44	800
Cowpea & others	26	21	808
Field pea	40	30	750
Lentil	13	8	615
Total Pulses	1464	707	483
Total Foodgrains	1855	1751	944
Groundnut	190	399	2100
Sesamum	130	58	446
Castor	16	10	625
Mustard	170	86	506
Sunflower	25	26	1040
Safflower	5	3	600
Linseed	39	18	462
Total Oilseeds	575	600	1043
Sweet Potato	17	156	9176
Potato	22	269	12227
Onion	41	387	9439
Other Vegetables	470	7043	14985
Total Vegetables	550	7855	14282
Chilli	50	43	860
Coriander	23	13	565
Garlic	15	48	3200
Total Condiments	88	104	1182
Sugarcane	52	4420	85000
Total	3120		

It is proposed to provide subsidized seeds to farmers of drought affected Districts during current Rabi Season in order to compensate, to some extent, the loss of Kharif crop. The requirement of funds for providing seeds at subsidized rates is **Rs.4.23 crore**. The details of District-wise seeds to be supplied and amount required towards subsidy are given below.

Requirement of seed subsidy under CRF in the drought affected Districts

Sl.	District	Wheat			Moong		
		Quantity in qtl.	Rate of subsidy Rs. in lakh/ctl.	Amount required in Rs. in lakh	Quantity in qtl.	Rate of subsidy Rs. in lakh/ctl.	Amount required in Rs. in lakh
1	Angul	350.00	906.0	3.171	47.00	1237.0	0.581
2	Bargarh	170.00	906.0	1.540	81.00	1237.0	1.002
3	Deogarh	128.00	906.0	1.160	7.00	1237.0	0.087
4	Dhenkanal	170.00	906.0	1.540	61.00	1237.0	0.755
5	Jharsuguda	140.00	906.0	1.268	13.00	1237.0	0.161
6	Kalahandi	910.00	906.0	8.245	1102.00	1237.0	3.632
7	Kandhamal	100.00	906.0	0.906	6.20	1237.0	0.077
8	Koraput	150.00	906.0	1.359	22.00	1237.0	0.272
9	Malkangiri		906.0	0.000	37.00	1237.0	0.458
10	Mayurbhanj	1025.00	906.0	9.287	84.00	1237.0	1.039
11	Nawarangpur	670.00	906.0	6.070	37.00	1237.0	0.458
12	Nuapada	650.00	906.0	5.889	462.00	1237.0	5.715
13	Sambalpur	187.001	906.0	0.694	59.00	1237.0	0.730
14	Subarnapur	330.00	906.0	2.990	318.00	1237.0	3.934
15	Sundargarh	1590.00	906.0	14.405	54.00	1237.0	0.668
	Total	6570.001		58.524	2390.20		19.567

Contd..

Sl.	District	Biri			Groundnut		
		Quantity in qtl.	Rate of subsidy Rs. in lakh/ctl.	Amount required in Rs. in lakh	Quantity in qtl.	Rate of subsidy Rs. in lakh/ctl.	Amount required in Rs. in lakh
1	Angul	72.00	915.0	0.659	680.00	2000.0	13.600
2	Bargarh	30.00	915.0	0.275	440.00	2000.0	8.800
3	Deogarh	12.00	915.0	0.110	170.00	2000.0	3.400
4	Dhenkanal	64.00	915.0	0.586	710.00	2000.0	14.200
5	Jharsuguda	16.00	915.0	0.146	45.00	2000.0	0.900
6	Kalahandi	1620.00	915.0	14.823	900.00	2000.0	18.000
7	Kandhamal	52.00	915.0	0.476	5.00	2000.0	0.100
8	Koraput	15.00	915.0	0.137	570.00	2000.0	11.400
9	Malkangiri	28.00	915.0	0.256	935.00	2000.0	18.700
10	Mayurbhanj	91.00	915.0	0.833	6680.00	2000.0	133.600
11	Nawarangpur		915.0	0.000		2000.0	0.000
12	Nuapada	700.00	915.0	6.405	830.00	2000.0	16.600
13	Sambalpur	28.00	915.0	0.256	545.00	2000.0	10.900
14	Subarnapur	182.00	915.0	1.665	1000.00	2000.0	20.000
15	Sundargarh		915.0	0.000	820.00	2000.0	16.400
	Total	2910.00		26.627	14330.0		286.600

Contd..

Sl.	District	Til			Sunflower			Total subsidy (Rs. in lakh)
		Quantity in qtl.	Rate of subsidy Rs. in lakh/ctl.	Amount required in Rs. in lakh	Rate of subsidy in Rs./ctl.	Rate of subsidy Rs. in lakh/ctl.	Amount required in Rs. in lakh	
1	Angul	4.00	5111.0	0.204	8.00	7904.0	0.632	18.848
2	Bargarh	15.00	5111.0	0.767	11.00	7904.0	0.869	13.253
3	Deogarh	4.00	5111.0	0.204	14.00	7904.0	1.107	6.067
4	Dhenkanal	6.00	5111.0	0.307	1.40	7904.0	0.111	17.498
5	Jharsuguda	3.00	5111.0	0.153	8.00	7904.0	0.632	3.261

6	Kalahandi	2.00	5111.0	0.102	95.00	7904.0	7.509	62.310
7	Kandhamal		5111.0	0.000	2.00	7904.0	0.158	1.717
8	Koraput		5111.0	0.000	0.50	7904.0	0.040	13.208
9	Malkangiri		5111.0	0.000		7904.0	0.000	19.414
10	Mayurbhanj	6.00	5111.0	0.307	3.00	7904.0	0.237	146.302
11	Nawarangpur		5111.0	0.000	1.00	7904.0	0.079	6.607
12	Nuapada		5111.0	0.000	10.00	7904.0	0.790	35.399
13	Sambalpur	16.00	5111.0	0.818	9.00	7904.0	0.711	15.109
14	Subarnapur	15.00	5111.0	0.767	31.00	7904.0	2.450	31.806
15	Sundargarh	12.00	5111.0	0.613	14.00	7904.0	1.107	33.193
Total		83.00		4.242	207.90		16.432	422.992

iv) Provision of Diesel Pump sets at subsidized rates

It is proposed to provide 20,000 diesel pump sets to farmers of drought affected Districts at subsidised rate. The subsidy per pump sets would be approximately Rs.10,000/-. The total requirement of funds would be **Rs.20.00 crore**. The District-wise number of pump sets to be supplied at the subsidized rate is given in the Table below.

v) Subsidy towards installation of Private Lift Irrigation Points (PLIPs).

It is proposed to take up special drive for installation of Private Lift Irrigation Points such as shallow Tube Wells, Bore Wells, Energized Dug Wells and River Lift Points in the drought affected districts. The requirement of funds towards subsidy @ 50% for 4,000 nos. of PLIPs proposed to be installed works out to **Rs.20.00 crore**. The district-wise requirement of fund is given in the Table below.

vi) Provision of Sprayers and Pesticides.

During Kharif 2009, pest attack has caused substantial damage to the standing crop. It is proposed to provide sprayers and pesticides to the farmers of the drought affected areas at 50% of the cost. A sum of **Rs.0.85 crore** towards subsidy on sprayers and a sum of **Rs.2.20 crore** towards subsidy on pesticides will be required. Total requirement is **Rs.3.05 crore**. The district-wise requirement of funds is given below.

CRF Subsidy for the drought affected Districts

[Rs. in lakh]

Sl.	District	Pumpsets	PLIP	Sprayers	Pesticides	Total
1	Angul	100.0	125.0	5.6	2.0	232.6
2	Bargarh	150.0	150.0	5.2	5.0	310.2
3	Deogarh	110.0	110.0	4.4	5.0	229.4
4	Dhenkanal	150.0	125.0	6.0	2.0	283.0
5	Jharsuguda	130.0	125.0	6.0	21.0	282.0
6	Kalahandi	170.0	175.0	5.8	2.0	352.8
7	Kandhamal	90.0	50.0	5.2	2.0	147.2
8	Koraput	134.0	140.0	6.0	5.0	285.0
9	Malkangiri	110.0	100.0	6.0	7.5	223.5
10	Mayurbhanj	170.0	200.0	6.0	2.0	378.0
11	Nabarangpur	110.0	125.0	5.6	2.5	243.1
12	Nuapada	140.0	175.0	5.2	2.0	322.2
13	Sambalpur	150.0	150.0	6.0	75.0	381.0
14	Subarnapur	150.0	125.0	6.0	12.0	293.0
15	Sundargarh	136.0	125.0	6.0	75.0	342.0
Total		2000.0	2000.0	85.0	220.0	4305.0

viii) Waiver of interest on Crop Loan advanced during Kharif 2009.

Due to erratic monsoon and pest attack, there has been widespread damage to the Kharif crops in the State. Farmers in the drought affected areas are agitating for waiving of loan. In 15 drought affected Districts, Rs.876.84 crore has been advanced as crop loan, both by Cooperative Banks and Commercial Banks. In the State of Orissa, Cooperative Banks provide crop loan at 5% rate of interest while Commercial Banks including Regional Rural Banks provide crop loan at 7% rate of interest. In order to provide relief to the drought affected farmers, Government may consider to waive interest due on crop loan advanced to drought affected farmers during Kharif 2009. A sum of Rs.3791.80 lakh would be required for the purpose which may kindly be provided as grant by the Central Government. The details of District -wise loans advanced and interest due (to be waived) are given below.

Interest on crop loan advanced by Commercial Banks and Co-operative Banks during Kharif 2009 in the drought affected Districts

[Rs. in lakh]

Sl.	District	Loan advanced			Int. @5% for Coop. Banks on product basis	Int. @5% for Commer- cial Banks on product basis	Total interest
		Co-operative Bank	Commercial Bank	Total			
1	Angul	7341.87	2627.11	9968.98	275.32	137.92	413.24
2	Bargarh	10517.51	4426.52	14944.03	394.41	232.39	626.8
3	Deogarh	799.46	1028.85	1828.31	29.98	54.01	83.99
4	Dhenkanal	5547.72	1566.19	7113.91	208.04	82.22	290.26
5	Jharsuguda	1528.94	754.95	2283.89	57.34	39.63	96.97
6	Kalahandi	3228.25	127.20	3355.45	121.06	6.68	127.74
7	Kandhamal	2097.82	487.35	2585.17	78.67	25.59	104.26
8	Koraput	2554.92	6713.19	9268.11	95.81	352.44	448.25
9	Malkangiri	932.81	1264.19	2197	34.98	86.37	101.35
10	Mayurbhanj	5552.86	3173.58	8726.44	208.23	166.61	374.84
11	Nabarangpur	1662.10	3883.97	5566.07	63.19	203.91	267.1
12	Nuapada	4720.37	900.34	5620.71	177.01	47.27	224.28
13	Sambalpur	1237.92	1690.60	2928.52	46.42	88.76	135.18
14	Subarnapur	2721.16	1709.61	4430.77	102.04	89.75	191.79
15	Sundargarh	3640.83	3222.79	6863.62	136.53	169.20	305.73
Total		54104.54	33576.44	87680.98	2029.03	1762.76	3791.78

viii) Liquidity support for financing fresh loans

National Bank for Agriculture and Rural Development (NABARD) provides refinance to the District Central Cooperative Banks (DCCBs) in the State through the Orissa State Cooperative Bank for providing crop loans to the farmers. Quantum of such refinance is determined as per the policy of NABARD, which is announced every year. According to the existing policy, 40% of the grassroots level credit is provided by NABARD to the State Cooperative Banks on behalf of eligible

DCCBs, which are complying with the minimum capital requirement of Rs.1.00 lakh as per the provisions of Section-11(1) of the Banking Regulation Act, 1949 (As Applicable to Cooperative Societies).

During the current year, 15 out of 17 DCCBs are eligible for refinance from NABARD. As against the programme for disbursement of Rs.2500.00 crores towards crop loan, NABARD has sanctioned Rs.820 crores in favour of 15 eligible DCCBs and the funds requirement of the remaining 2 CCBs are partly met by the Orissa State Cooperative Bank (OSCB) and partly from their own resources. Although the Central Cooperative Banks in Orissa are financing around 60% of the crop loans advanced by all the Banks, their own resource is limited to cope with the increasing credit requirement and the NABARD refinance is also not adequate for the purpose.

As 15 Districts of the State have been declared drought affected, as per rules, after declaration of annewari, short term crop loans advanced to the farmer members would be converted to Medium Term Conversion (MTC) loans having repayment period of 3 to 5 years with one year moratorium, which would result in non-recovery of dues from the farmers in the drought affected Districts. After conversion of the Short Term crop loans, the farming community has to be provided with fresh loans for cultivation of crops. Due to non-recovery of loans in shape of cash, all the 17 Central Cooperative Banks would face liquidity problem to cope with the demand of credit by the farming community of both drought affected and non-affected Districts. The DCCBs would be required to garner adequate resources for the purpose as the refinance limit would not be adequate to meet the funds requirement during the current Rabi season (01.10.09 to 31.03.2010) and Khariff, 2010 (01.04.10 to 30.09.10).

As the District Central Cooperative Banks do not have adequate scope to mobilize own resources to meet the demand of crop loans of the farming community on conversions of their Short Term loans and subsequent stoppage of recovery, instant fresh finance is required for them to cater to the requirement of crop loans of farmers.

Earlier, during the year 2008-09, after announcement of Agricultural Debt Waiver and Debt Relief Scheme, 2008, the regular borrowers did not repay their loans protesting against their non-inclusion in the scheme and the Government also took some time to release interest subvention claims. Government of India has helped the Cooperative Banks by providing liquidity support through the NABARD to tide over the liquidity crunch on the following terms and conditions.

- 1) The support will be in the form of a loan which is repayable on demand or on receipt of debt waiver/ relief amount from Government of India or on 30 June 2009 whichever is earlier.
- 2) The liquidity support sanctioned is operated up to 31 March 2009.
- 3) The purpose of assistance will be to enable Cooperative Banks to meet the liquidity crunch for providing crop loans for Seasonal Agricultural Operations during Rabi 2008-09. So, the amount of assistance availed under scheme must be utilized exclusively for fresh financing during Rabi 2008-09 over and above the financing made by you as on the date of drawal.
- 4) The eligibility and security norms would be same as applicable for ST(SAO) credit limit for 2008-09.
- 5) The rate of interest for this amount would be 4.5% p.a. from the date of release up to the date of repayment or 30 June 2009 whichever is earlier. After 30 June 2009 normal rate of interest will apply on the outstanding liquidity support drawn by the Bank. The normal rate for the present is 9% or any other rate as prescribed by NABARD from time to time in consultation with Government of India.
- 6) Liquidity support must be utilized by the Banks exclusively for providing fresh crop loans to eligible borrowers within 30 days from the date of each drawal. If Banks fail to utilize the assistance within the stipulated time, NABARD at its discretion will recall the loan and charge interest @ 11.75% p.a. or as may be decided from time to time, from the date of release up to the date of repayment. OSCB may obtain the utilization certificates from DCCBs and submit the same to NABARD.

Had the State not suffered from drought situation warranting declaration of annewari, recovery from the farming community would have been to the tune of around 75% of the crop loans dispensed during the year, which means around Rs.1875 crores would have been recovered during the current year enabling recycling of such funds for advancing crop loans. As such, adequate funds would not be available for financing the credit requirements of farmers unless liquidity support is provided by NABARD to tide over the cash crunch at the level of the DCCBs operating in the drought affected area. The DCCB wise requirement is given below.

(Rs. in crores)

Sl. No.	Name of the District	Crop loans advanced during Khariff, 2009	Programme for financing crop loans during Rabi, 2009-10	Programme for financing crop loans during Khariff, 2010	Total funds requirement for financing crop loans up to 30.09.2010	Liquidity support required
1	Angul	73.42	70.00	88.00	158.00	100.00
2	Bargarh	105.16	64.00	126.00	190.00	120.00
3	Deogarh	7.99	5.00	10.00	15.00	10.00
4	Dhenkanal	55.48	81.00	67.00	148.00	94.00
5	Jharsuguda	15.29	9.00	18.00	27.00	17.00
6	Kalahandi	32.28	25.00	39.00	64.00	41.00
7	Kandhamal	20.98	13.00	25.00	38.00	24.00
8	Koraput	25.55	22.00	31.00	53.00	34.00
9	Malkangiri	9.33	8.00	11.00	19.00	12.00
10	Mayurbhanj	55.53	44.00	67.00	111.00	70.00
11	Nabarangpur	16.85	15.00	20.00	35.00	22.00
12	Nayagarh	47.20	51.00	57.00	108.00	68.00
13	Nuapada	12.38	10.00	15.00	25.00	16.00
14	Subarnapur	27.21	15.00	33.00	48.00	30.00
15	Sambalpur	36.41	22.00	45.00	67.00	42.00
Total		541.08	454.00	650.00	1104.00	700.00

In view of the prevailing drought situation, the crop loan advanced to the farming community is likely to be converted to Medium Term (Conversion) which would be repayable over a period of 3 to 4 years with one year Moratorium. As

cash recovery would not be effected, the Cooperative Bank in the State would suffer from liquidity crunch to finance fresh loan during the current Rabi i.e. 2009-10 and also during Kharif 2010 i.e. from 01.04.2010 to 30.09.2010.

As such, the Central Government may evolve a scheme to provide liquidity support to the Cooperative Banks through NABARD to the tune of around Rs.700.00 crores at par with crop loan refinance rates and the limit may be operative up to 30.09.2010 and due for repayment by 31.03.2011.

ix) Revival of Lift Irrigation Points

At present there are 7238 Lift Irrigation Projects existing in the 15 drought affected Districts of Orissa with irrigation potential of 1,66,221 hectares, out of which 2226 Lift Irrigation Projects are in defunct condition for which 55,793 hectare areas could not be covered under irrigation.

Also the irregular and scanty rainfall from Oct'08 to June'09 have made the living condition of people miserable to the extent of compelling them to remain under almost half-starving condition. There is no alternative except to depend upon assured agricultural production. Hence, in order to meet the agricultural strategy for maintenance of the livelihood within their native villages, raising of Rabi and Summer crops have a vital role. This needs immediate revival of 1283 defunct LI Projects that can stabilize 2,53,040 hectares of cultivable land at a cost of Rs. 59.92 crore.

District-wise proposal for revival of defunct LI Points

Sl.	District	No. of energised LIP	Ayacut in Ha.	No. of defunct LIP	Area in Ha.	Nos. to be taken up for revival		
						No.	Area	Amount in crore
1	Angul	504	13144	230	5774	146	3060	7.45
2	Bargarh	522	12367	142	3184	110	2200	4.25
3	Deogarh	95	2175	15	447	3	60	0.18
4	Dhenkanal	537	13034	227	5516	166	3360	5.99
5	Jharsuguda	160	3734	78	1920	50	1020	4.20
6	Kalahandi	708	16604	157	4280	60	1200	3.00
7	Kandhamal	287	5431	93	1941	17	340	1.20
8	Koraput	713	15696	262	6676	145	2900	7.20

9	Malkangiri	135	2709	55	1109	20	400	1.20
10	Mayurbhanj	1108	23083	372	8201	270	4860	12.44
11	Nabarangpur	617	12880	189	4320	80	1600	4.00
12	Nuapada	317	6887	22	997	17	340	0.58
13	Sambalpur	368	8705	121	2833	102	2060	3.18
14	Subarnapur	623	15721	61	2889	20	400	1.20
15	Sundargarh	564	14051	202	5706	77	1540	3.85
Grand total		7238	166221	2226	55793	1283	25340	59.92

Food Security

a) Gratuitous Relief

In order to ensure food security in the drought affected Districts, 9,61,367 people belong to farmers, agricultural labourers will be provided gratuitous relief for a period of 90 days. An amount of **Rs.128.88 crore** is required for this purpose.

Sl.	District	Villages affected	Ward affected	Population affected			No. of days	Amount required towards food assistance (Rs. in lakh)		
				Adult	Children	Total		@ Rs.20 per adult	@Rs.15 per child	Total (Rs. in lakh)
1	Angul	242		63830	24435	88265	90	1148.94	329.87	1478.81
2	Bargarh	28		23246	3177	26423	90	418.43	42.89	461.32
3	Deogarh	193		52397	13598	67955	90	943.15	183.57	1126.72
4	Dhankanal	27		22857	2963	25820	90	411.43	40.00	451.43
5	Jhansuguda	289	14	173607	68231	241838	90	3124.93	921.12	4046.04
6	Kalahandi	75		30181	19926	50107	90	543.26	269.00	812.26
7	Koraput	110		64100	45734	109834	90	1153.80	617.41	1771.21
8	Malkangiri	133		18753	28129	46882	90	337.55	379.74	717.30
9	Mayurbhanj	217		2504	1678	4182	90	45.07	22.65	67.73
10	Nabarangpur	42		25052	9532	34584	90	450.94	128.58	579.62
11	Nuapada	219	4	289	123	412	90	5.20	1.65	6.86
12	Sambalpur	567		19996	6004	26000	90	359.93	81.55	440.98
13	Subarnapur	57		2048	622	2670	90	36.86	8.40	45.26
14	Sundargarh	1049	23	38776	13654	52430	90	697.97	184.33	882.30
Total		3264	41	537636	237806	961367		9677.45	3210.38	12887.83

Emergency Feeding Programme

The issue of food security needs to be handled sensitively. Government has issued clear instructions to identify the vulnerable areas and households for close monitoring of the situation. Old, infirm, destitute, people of unsound mind and indigent persons need special care and attention. For such target groups emergency feeding programme need to be in place. Feedbacks show that at least 7,97,679 persons, who are not covered under any scheme, will have to be given food security at least for three months. An amount of **Rs.21.75 crore** is required for this purpose.

Sl.	District	No. of persons	Monthly requirement of food grains (in qtls.)	Monthly requirement of Funds (Rs. in lakh)	No. of Days	Amount required @ Rs.3.03 per person per day (Rs. in lakh)
1	Angul	42799	3209.93	38.90	90	116.70
2	Bargarh	60702	4552.65	55.18	90	165.54
3	Deogarh	15278	1145.85	13.89	90	41.67
4	Dhenkanal	53233	3992.48	48.39	90	145.17
5	Jharsuguda	23275	1745.63	21.16	90	63.48
6	Kalahandi	86577	6643.28	80.52	90	241.56
7	Koraput	74523	5589.23	67.74	90	203.22
8	Malikangiri	97746	7330.95	88.85	90	266.55
9	Mayurbhanj	44926	3369.45	40.84	90	122.52
10	Nabarangpur	73082	5481.15	66.43	90	199.29
11	Nuapada	66415	4981.13	60.37	90	181.11
12	Sambalpur	46796	3509.70	42.54	90	127.62
13	Subarnapur	36236	2717.70	32.94	90	98.82
14	Sundargarh	74091	5558.83	67.39	90	202.17
Total		797679	589825.96	725.14		2175.42

b) Supplementary Nutrition Programme

Keeping in view the adverse effects of the drought on Children belonging to vulnerable group it is proposed to cover them under the ICDS guidelines.

The cost of the daily ration under SNP is Rs. 2.00 per day / beneficiary as per CRF Norms. It is proposed to provide food to these beneficiaries for a period of 90 days. Accordingly, calculation has been made for 496392 no of beneficiaries for 90 days. A total amount of **Rs.10.77 crore** will be required to provide food assistance to this eligible but left-out population in the State. The total requirement of funds is given below.

Sl.	District	No. of children to be provided supplementary nutrition	No. of Days	Amount required @ Rs.2.00 per child per day (Rs. in lakh)
1	Angul	110372	90	198.67
2	Bargarh	691	90	1.24
3	Deogarh	31563	90	56.81
4	Dhenkanal	2897	90	5.21
5	Jharsuguda	42469	90	76.44
6	Kalahandi	13467	90	24.24
8	Koraput	11456	90	20.62
9	Malkangiri	7143	90	12.86
10	Mayurbhanj	51562	90	92.81
11	Nabarangpur	4549	90	8.19
12	Nuapada	80102	90	144.18
13	Sambalpur	11980	90	21.56
14	Subarnapur	8654	90	15.58
15	Sundargarh	119487	90	215.08
Total		496392		1076.58

Drinking Water

a) Rural Water Supply

Due to abnormally low rainfall in large parts of the State during the Monsoon season, drinking water scarcity problem has arisen in the affected districts. The drinking water situation is grim not only in rural areas but also in many urban areas in the State.

Following Action Plan has been formulated for the purpose. An amount of **Rs. 186.00 crore** is required .

	Funds Required (Rs.in Crores)
(a) Provision of extension and replacement of worn-out "Riser 54.00 crores pipes" in tubewells, where there is likelihood of depletion of water table beyond suction level of the pump and replacement of old damaged riser pipes.	54.00
(b) Procurement of PVC storage tanks for transportation of 1.50 crores drinking water to drinking water scarcity in rural settlements.	1.50
(c) Installation of replacement defunct tube wells in habitations.	30.00
(d) To engage hired Mobile vans in all the affected Blocks, where there is no departmental van, for six months from January, 2010 to June 2010.	3.00
(e) Provision of hire charges of hired vehicles to convey drinking water through storage tanks for six months.	1.00
(f) Provision of Hydrofracturing and Compressor Washing to develop the yield of tube wells during drinking water scarcity period.	0.50
(g) Provision of Hydrofracturing Units and Rig Units	14.50
(h) Procurement of new Mobile Vans @ 1 no. per each Block worst hit by scanty rainfall.	20.00
(i) Procurement of new water Tankers to meet the scarcity of water.	31.40
(j) Procurement of critical Spare Parts.	5.00
(k) Augmentation of break down Rural Piped Water Supply Schemes.	25.10
TOTAL	186.00

b) Urban Water Supply

Due to irregular & Scanty rainfall during last monsoon the water supply to the 9 ULBs have been badly affected . The river Ib, Mahanadi, Brahmani, Koel & Nakti Nallah have dried up and there is no adequate surface flow for which construction of cross bundhs & river bed dredging are required for smooth supply of water to the ULBS.

Besides, number of production wells & H.P. Tube wells are also required to supplement the short fall of water. Tankers (both departmental & hired) are to be engaged for supply of drinking water in the scarcity pockets & uncovered areas of the ULBs, POL for departmental tankers are required for transportation of drinking water and inspection vehicles.

Defunct tube wells are to be replaced and new Hp Tube wells are to be installed in order to mitigate the drinking water supply during the coming months including Summer 2010. For above purpose an amount of **Rs.1.67 crore** is required to combat drought situation- 2009.The details of the requirement is given below:

Supply of Drinking Water through sinking / repair of tube wells

Sl	District	Affected ULBs	No. of Tubewells in the District	No. of Tubewells to be repaired	No. of Tubewells to be sunk	Amount required (Rs. in Lakh)
1	Angul	Athamallick	117	40	12	8.80
2	Jharsuguda	Jharsuguda	435	150	20	20.50
		Brarajnagar	180	50	15	11.00
		Belpahar	233	55	15	11.35
3	Sundargarh	Rourkela	1077	250	15	25.00
		Biramitrapur	181	50	10	8.50
		Sundargarh	212	50	15	11.00
		Rajgangpur	217	50	1	4.00
4	Nuapada	Kharlar Road	163	40	12	8.80
Total			2816	735	115	113.45

Supply of Drinking Water through Tanker

Sl	District	Affected ULBs	No. of days drinking water will be supplied through tanker	No. of water tankers to be engaged	Cost of hire charges of the tanker [Rs. in lakh]	Cost of POL charges of the tanker [Rs. in lakh]	Cost of cross bundh / dredging	Total [Rs. in lakh]
1	Angul	Athamallick	90	2	2.70	0.30	1.15	4.15
2	Jharsuguda	Jharsuguda	90	3	4.05	1.30	2.41	7.76
		Brarajnagar	90	4	5.40	1.29	1.89	8.58
		Belpahar	90	2	2.70	0	0	2.70
3	Sundargarh	Rourkela	90	4	5.40	0.47	1.00	6.87
		Biramitrapur	90	1	1.35	0.37	0.20	1.92
		Sundargarh	90	4	5.40	0.74	1.50	7.64
		Rajgangpur	90	3	4.05	0.37	0.5	4.92
4	Nuapada	Khariar Road	90	4	5.40	1.48	2.00	8.88
Total				33	36.45	6.32	10.65	53.42

Animal Resources Sector

The cattle are the worst affected during a drought situation. Where it is not possible to supply fodder or take medical care of cattle, cattle camps are opened to take complete care of the cattle population.

The following is a checklist of points for monitoring the fodder requirement in difficult drought situation.

- Assessment to fodder requirement in drought affected districts and locate areas where shortages are likely to occur and arrange for supplies from outside
- Monitoring the prices of fodder in selected places / markets.
- Arrange to procure fodder in selected outlets
- State Forest Department to arrange for the cutting and bailing of grasses in the forest, wherever possible to meet the demand from fodder deficit districts.
- Fodder cultivation to be encouraged wherever feasible.
- Ensure supply for molasses to cattle feed plants.

a) Provision of Fodder

- i) Due to drought situation, the availability of green fodder in the pasture will be hampered. It is anticipated that the pasture fodder will hardly meet 25% of the total requirement. The total requirement of funds for six months will be **Rs.145.63 crore.**

Sl	District	No. of Village Affected	No. of Wards Affected	Cattle Population affected			No. of days fodder to be provided	Amount required towards fodder		Total [Rs. in lakh]
				Large	Small	Total		@Rs.20 per large animal	@Rs.10 per small animal	
1	Angul	242		12236	7456	21682	90	220.25	67.10	287.35
2	Bargarh	28		11153	3798	14979	90	201.29	34.16	235.46
3	Deogarh	193		47200	12302	59502	90	849.60	110.72	960.32
4	Dhenkanal	27		7435	5154	12589	90	133.83	46.39	180.22
5	Jharsuguda	289	14	242238	61977	323175	90	4360.28	557.79	4918.08
6	Kalahandi	75		8742	3613	12355	90	157.36	32.52	189.87
7	Koraput	110		82298	27791	110089	90	1481.36	250.12	1731.48
8	Malkangiri	133		122904	81452	184356	90	2212.27	553.07	2765.34
9	Mayurbhanj	217		1200	1100	2300	90	21.60	9.90	31.50
10	Nabarangpur	42		19610	7056	26666	90	352.98	63.50	416.48
11	Nuapada	219	4	31784	15914	47698	90	572.11	143.23	715.34
12	Sambalpur	557		1250	750	2000	90	22.50	6.75	29.25
13	Subarnapur	57		7640	4050	11690	90	137.52	36.45	173.97
14	Sundargarh	1049	23	74368	65512	139880	90	1338.62	589.61	1928.23
Total		3254	41	670088	277923	968961		12061.57	2501.31	14562.89

b) Animal Health Measures

Since drought affected animals are prone to a number of contagious diseases, it is necessary to take preventive steps through vaccination and mass de-worming of animal.

Keeping in view of the above necessities and to combat the drought situation, an amount of **Rs.3.77 crore** is required for animal health care in drought affected districts.

Sl.	District	Cost of vaccine (Rs. in lakh)	Cost of medicine (Rs. in lakh)	Amount Required (Rs. in lakh)
1	Angul	0.72	1.22	1.94
2	Bargarh	4.50	8.96	13.46
3	Deogarh	-	12.09	12.09
4	Dhenkanal	0.34	6.61	6.95
5	Jharsuguda	13.08	18.14	31.22
6	Kalahandi	-	19.98	19.98

7	Koraput	8.10	78.37	86.47
8	Malkangiri	-	16.66	16.66
9	Mayurbhanj	5.14	3.95	9.09
10	Nabarangpur	0.90	55.25	56.15
11	Nuapada	2.00	21.93	23.93
12	Sambalpur	2.00	11.00	13.00
13	Subarnapur	-	48.74	48.74
14	Sundargarh	-	37.52	37.52
Total		36.78	340.42	377.20

Health Measures

Due to shortage of water and food, people in the drought-affected areas are likely to suffer from the diseases like

- i) The water borne diseases (diarrhoeas, dysentery etc.)
- ii) Common type of diseases like anaemia, malnutrition etc.
- iii) Skin diseases like scabies etc.

In order to tackle these problems in the drought affected Health centres, both curative and preventive health measures need to be taken in the following manner.

Supply of adequate medicine, disinfectants, Halogen tablets, ORS packets, etc. and other life saving medicines to drought prone areas of the Districts, Chlorination of drinking water sources, Formation of minimum of two mobile health units in each District, Detection of Grade-III and Grade- IV malnutrition amongst children and aged persons.

The annual budgetary provision of the Department is not adequate to meet the requirement to such contingent plan for which the additional funds to the tune of **Rs 1.70 crore** is required.

Format- III

Calculation of assistance for agricultural input subsidy-SMF

Sl.	Name of affected district	Total Agricultural area Affected (in Hect.)	Total agricultural area where crop loss is > 50%	Out of (4) area belonging to SMF			Assistance sought for different categories of crops			Total assistance sought (Rs. in lakh)
				Rainfed	Irrigated	Perennial	Rainfed (Rs. 2000/- X Col. 5A)	Irrigated (Rs. 4000/- X Col. 5B)	Perennial (Rs. 6000/- X Col. 5C)	
1	2	3	4	5A	5B	5C	6A	6B	6C	7(6A+6B+6C)
1	Angul	14561.67	9601.54	9585.54	16.00	0.00	191.71	0.54	0.00	192.35
2	Bargarh	6721.23	4646.25	4540.99	105.26	0.00	90.82	4.21	0.00	95.03
3	Deogarh	8456.28	5914.00	5914.00	0.00	0.00	118.28	0.00	0.00	118.28
4	Dhenkanal	705.48	424.18	424.18	0.00	0.00	8.48	0.00	0.00	8.48
5	Jharsuguda	69905.60	46780.49	39666.64	7113.85	0.00	793.33	284.55	0.00	1077.89
6	Kalahandi	71435.44	46997.00	46089.00	908.00	0.00	921.78	36.32	0.00	958.10
7	Kandhamal	23.94	6.00	6.00	0.00	0.00	0.12	0.00	0.00	0.12
8	Koraput	48675.23	32098.39	23283.68	8814.71	0.00	465.67	352.59	0.00	818.26
9	Malikangiri	63951.17	39154.72	35208.90	3945.82	0.00	704.18	157.83	0.00	862.01
10	Mayurbhanj	4691.92	3021.00	2597.00	424.00	0.00	51.94	16.96	0.00	68.90
11	Nabarangpur	4323.28	3039.20	3039.20	0.00	0.00	60.78	0.00	0.00	60.78
12	Nuapada	18962.83	12340.32	12244.79	95.53	0.00	244.90	3.82	0.00	248.72
13	Sambalpur	25609.24	14874.50	14553.50	321.00	0.00	291.07	12.84	0.00	303.91
14	Subarnapur	7455.60	4909.05	4909.05	0.00	0.00	98.18	0.00	0.00	98.18
15	Sundargarh	96023.23	85164.00	83938.00	2226.00	0.00	1678.76	89.04	0.00	1767.80
Total		441502.14	309970.64	286000.47	23970.17	0.00	5720.01	958.81	0.00	6678.82

Chapter - IV

Status of Calamity Relief Fund

Status of Calamity Relief Fund (2008-09)

The Calamity Relief Fund has been constituted with the sharing of Central and State Government as per the recommendations of the 12th Finance Commission. The corpus of the Calamity Relief Fund pertaining to the State of Orissa for the year 2008-09 was Rs.328.97 crore. The details of which are given below.

State share	:	Rs.82.24 crore
Central share	:	Rs.246.73 crore

Total : Rs.328.97 crore

Out of above, Rs.164.485 crore was received towards 1st instalment of Central and State share. Besides, Rs.95.52 crore was available in the CRF account as Opening balance as on 01.04.2008. As such, total funds available in the CRF account as on 01.07.2008 was Rs.260.05 crore. The details is as follows.

		<i>Rs. in crore</i>
Opening Balance	:	95.52
1 st instalment to CRF [2008-09]		
Central share	:	123.365
State share	:	41.120
TOTAL	:	260.005

During the month of June 2008 the northern part of Orissa experienced heavy rainfall and major rivers like Subarnakha, Jalaka, Budhabalanga and Baitarani were flooded. Life and property of the people of 6 districts were badly affected and an amount of Rs.139.25 crore has been spent towards rescue and providing immediate relief to the victims. Besides, funds to the tune of Rs.44.92 crore was spent towards mitigation and providing necessary assistances for other calamities as per CRF norm from April 2008 to July 2008. The calamity-wise expenditure from April 2008 to July 2008 is as follows.

Sl.	Nature of Calamity / Items	Amount spent (Rs. in crore)
1	Cyclone	0.05
2	Drought	20.24
3	Fire	7.56
4	Hailstorm	1.78
5	Floods June 2008 (only pure relief)	139.25
6	Training on Disaster Management	0.27
7	Procurement of search and rescue equipment	15.02
Total		184.17

As such, funds available as on 01.08.2008 in CRF account was Rs.75.835 crore (Rs.260.005 crore – Rs.184.17 crore).

During the month of September 2008 an unprecedented flood occurred in the State of Orissa affecting almost 19 districts. The Government of India also accepted the severity of the flood and they took it as **unprecedented** Vide Ministry of Home Affairs, Government of India, FAX Message No. 11011 /15 / 2008 MHA-DM-I / Dated 20.09.2008.

During peak floods in the Mahanadi river system on 23rd September 2008, the Union Home Minister made an aerial survey of the flood affected areas accompanied, among others, by the Vice-chairman, National Disaster Management Authority (NDMA) and Secretary, Border Management, Government of India. Realising the gravity and magnitude of the devastation, the Home Minister, Government of India had announced financial assistance amounting to Rs.500 crore to the State towards immediate relief and restoration. Subsequently, the Union Home Minister reiterated the Government of India's commitment for such assistance vide his letter No.V-23566/HMP/2008 dated 29th September 2008 addressed to Hon'ble Chief Minister, Orissa. The Hon'ble Prime Minister of India while camping at New York also intimated vide letter dated 25th September 2008 to Shri Brahmananda Panda, Hon'ble Member of Parliament, Jagatsinghpur that Rs.500.00 crore has been allocated to assist the State Government in its relief and rehabilitation effort and assured that more assistance would be provided if needed.

Since, the priority of the State Government was to provide immediate relief to the victims during such unprecedented floods, the State Government had spent Rs.415.38 crore towards providing necessary assistance as per norms and guidelines of Calamity Relief Fund as detailed below.

(Rs. in crore)

Item	Expenditure incurred
Gratuitous Relief	122.03
Supplementary nutrition	0.72
Emergent Relief (Free kitchen / Temporary accommodation)	13.50
Drinking water supply	1.00
Transportation and POL	3.23
Ex-gratia	1.10
Graveous injury	0.01
House Building Assistance	59.44
Temporary shelter material	8.40
Clothing and utensils	16.65
Human Health Care	15.22
Cattle care	6.09
Cattle feed	43.09
Input subsidy	109.63
Assistance to Fisherman	2.37
Assistance to Artisan	3.65
Assistance to Sericulture Farmers	0.36
Sandcast subsidy	8.43
Assistance for replacement of draught / milch animals	0.46
Total	415.38

As against the funds available in CRF as on 01.08.2008 was only Rs.75.835 crore, expenditure to the tune of Rs.415.38 crore towards providing emergent relief to the flood victims had exhausted the funds available in CRF. The balance in CRF account as on 01.11.2008 is **Rs. (-) 339.545 crore** [Rs.75.835 crore – Rs.415.38 crore].

Contrary to the declaration made by Government of India, only a sum of Rs.98.87 crore was sanctioned out of NCCF in the month of November 2008. An amount of Rs.103.69 crore had also been received towards advance out of the corpus for the year 2009-10. As such, funds available in CRF as on 01.12.2008 is as follows.

		<i>Rs. in crore</i>
Funds available as on 01.12.2008	:	(-) 339.545
2 nd instalment to CRF [2008-09]		
Central share	:	123.365
State share	:	41.120
Advance out of Corpus of 2009-10		
Central share	:	77.766
State share	:	25.923
NCCF releases during the year 2008-09	:	98.87
TOTAL	:	27.499

As per the assurance given by the Hon'ble Union Home Minister the concerned line Departments were authorized to go ahead with the immediate repair / restoration works amounting to Rs.500 crore in the flood affected areas for restoration of damage public infrastructure and connectivity. The concerned Departments also took up the work in the flood-affected areas and all the restoration work was completed within the time frame. Virtually there was no fund available in the Calamity Relief Fund to meet the expenditure incurred by different Departments after the assurance of the Hon'ble Home Minister. For management of the liability on CRF towards immediate restoration works, a loan was taken from the Orissa Contingency Fund during 2008-09. The Hon'ble Chief Minister has made correspondences time and again for sanction of assistance from NCCF to clear up the liability that has created on CRF which is yet to be responded by Government of India.

At the end of the financial year 2008-09 the funds available in the Calamity Relief Fund was **Rs.(-)472.501 crore** [Rs.500 crore – Rs.27.499 crore]. The detail is indicated below.

		<i>Rs. in crore</i>
Balance as on 01.12.2008	:	27.499
Expenditure made for repair / restoration of Immediate nature of the damaged Infrastructure due to floods 2008	:	500.00
TOTAL	:	(-) 472.501

As per finance account of Calamity Relief Fund for the year 2008-09 released by Accountant General, Orissa, the closing balance as on 31.03.2009 in CRF account is Rs.4.349 crore. It does not mean that there was positive balance in CRF account as on 31.03.2009. The above amount i.e. Rs.4.349 crore was kept reserved to meet any eventuality on account of occurrence any natural calamity like fire, hailstorm, cyclone etc. towards the end of the financial year. The fact can be better appreciated by taking into consideration the occurrence of severe tornado accompanied with hailstorm in the night of 31.03.2009 in Rajkanika block of Kendrapara district. As the incident occurred on 31st March 2009 night all the relief and rehabilitation measures have been made out of the balance amount of Rs.4.349 crore and the rest amount from the State's share of the CRF for the year 2009-10. Since the amount of expenditure on account of hailstorm mitigation measures was met from the balance amount of 2008-09 of Rs.4.349 crore and the state share of 2009-10, Memorandum for seeking assistance was not considered appropriate to be submitted to Government of India. So as on 31.03.2009 the closing balance in CRF account was **(-) Rs.472.501 crore.**

Status of Calamity Relief Fund (2009-10)

An amount of Rs.65.83 crore has been received towards 1st instalment of Central and State share. As discussed above Rs.(-)472.501 crore is the opening balance in the CRF account as on 01.04.2009. The funds position in the CRF account as on 01.07.2009 is given below.

		<i>Rs. in crore</i>
Opening Balance as on 01.04.2009	:	(-) 472.501
1 st Instalment to CRF [2009-10]		
Central share	:	49.369
State share	:	16.457
TOTAL	:	(-) 406.675

Amount spent for relief and rehabilitation measure for hailstorm in Rajkanika Block (Rs.9.73 crore – Rs.4.35 crore which was reserved out of corpus of 2008-09)	5.380
Amount spent for relief and rehabilitation measures cyclone and fire	1.856
Expenditure incurred upto 10% on procurement of search and rescue equipment	21.720
Balance in CRF account as on 01.07.2009	(-) 435.631

During the month from July to September floods in three phases spreading over 17 districts of the State causing massive damage to the life and properties of the people. The State Government had spent Rs.7.86 crore towards providing emergent relief as per norms and guidelines of Calamity Relief Fund as detailed below.

(Rs. in crore)

Item	Expenditure incurred
Gratuitous Relief	2.55
Ex-gratia	0.59
House Building Assistance	2.51
Cattle feed	0.08
Sandcast subsidy	1.44
Total	7.17

This apart, for restoration of public infrastructure of immediate nature in eligible sectors damaged during floods an amount of **Rs.224.32 crore** was spent by the line Departments under Calamity Relief Fund. Hence for flood 2009 the total liability created on Calamity Relief Fund comes to Rs.231.49 crore.

The detailed status of expenditure from CRF / NCCF 2009-10 account is given in the prescribed Format - IX.

Format – IX
Status of expenditure from CRF / NCCF Account

Year-2009-10
(As on 15.12.09)
State– Orissa
[Rs. in crore]

1	Opening balance in CRF account (both CRF and NCCF) as on 01.04 2009	(-) 472.501
2	CRF releases during the year 2009-2010 (Central & State share)	
	# 1st Instalment of current year [State + Central]	65.830
	# 2nd Instalment of current year, if any[State + Central]	-
	# Advance Contribution for 2000-11 (Centre+State)	-
3	NCCF releases during the year 2009-10 if any	
4	Total funds available in CRF Account (1+2+3)	(-)406.671
5	Expenditure incurred on calamities	
	# Avalanches	-
	# Cyclone	0.146
	# Cloud Burst	-
	# Flood -2009	231.49
	# Earthquake / Tsunami	-
	# Fire	3.405
	# Hailstorm	5.380
	# Landslides	-
	Sub-total	240.421
6	Expenditure incurred on training during 2009-2010	-
7	Expenditure incurred upto 10% on procurement of search and rescue equipments etc. during 2009-2010	21.720
8	Expenditure incurred on instant Drought / Pest attack	53.230
9	Total expenditure incurred on all calamities (5+6+7+8)	315.371
10	Balance available in CRF account (4-10)	(-) 722.042

Further, it may be mentioned that even after receipt of 2nd instalment of CRF amounting to Rs.169.515 crore, the liability on CRF would be Rs.552.527 crore.

Assistance Required from Government of India

As the expenditure on relief measures mount, the state government is experiencing a serious resource crunch. Central assistance would thus be critical for meeting the state's needs for drought relief. The request for central assistance that has been presented here is in accordance with the guidelines of the Calamity Relief Fund (CRF). It is based on the actual losses and damages as well as the scale of current relief operations. It has been prepared with a view to provide support for revival of agriculture to the most vulnerable segments of the society, which are small and marginal farmers and agricultural labourers. The request for assistance for different relief measures is presented as below:

Sl.	Item/Activity	Purpose	Amount (Rs. in Crore)
1	Agriculture	Agriculture input subsidy	150.00
		Soil Conservation / Drought proofing measures	39.70
		Provision of Subsidised seed	4.23
		Provision of Diesel pumps	20.00
		Installation of private Lift Irrigation Points	20.00
		Provision of sprayers and pesticides	3.05
		Sub-total	236.98
2.	Co-operation	Waiving of Crop Loan Interest	37.92
		Liquidity support for financing fresh loan	700.00
		Sub-total	737.92
3	Water Resources	Revival of L.I. Points	59.92
4	Food Security	Gratuitous Relief	128.88
		Emergency Feeding	21.75
		Supplementary Nutrition	10.77
		Sub-total	161.40
5	Drinking Water Supply	Rural water supply	186.00
		Urban water supply	1.67
		Sub-total	187.67
6	Animal Resources	Provision of fodder	145.63
		Cattle Health measure	3.77
		Sub-total	149.40
7	Health Measures	Provision of medicines	1.70
8	Calamity Fund Release	CRF- Outstanding release	722.042
Grand Total			2257.032

Chapter - V

Conclusion

After the floods of 2008, keeping in view the announcement of an assistance of Rs.500 crore by the Union Home Minister vide his letter no.V-23566/HMP/2008 dated 29th September 2008, the State Government took up immediate restoration of the flood damaged public infrastructure on a war footing to restore connectivity within the prescribed time frame, strictly adhering to the norms of the CRF. But due to sanction of only Rs.98.87 crore out of NCCF, huge liability has been created on the CRF of the State. Hence, there is intolerable pressure on CRF to accommodate current liabilities.

As per the recommendation of the 12th Finance Commission, the eligibility of the Government of Orissa for the Calamity Relief Fund for 2009-10 is Rs.339.03 crore. Out of this, the Centre's Contribution is Rs.254.27 crore and the State's contribution is Rs.84.76 crore. To meet the expenditure on relief, rescue and restoration measures for Flood 2008, a sum of Rs.77.77 crore was sanctioned by the Government of India as advance out of the corpus of 2009-10 during the year 2008-09. Similarly the corresponding state share of Rs.25.92 crore was also made available as advance by the State Government to meet the expenditure on flood restoration work. The total fund available in the CRF including the advance and the amount under NCCF was entirely spent for the purpose during the year 2008-09.

In the fitness of things, the amount of Rs.103.69 crores advanced out of this year's corpus for floods 2008 ought to be sanctioned out of the NCCF since the said amount has been fully utilised meeting the normative standards. On the contrary, the advanced amount has been deducted from the 1st instalment of the current financial year's CRF contribution by the Government of India. This has hamstrung the capability of the State to manage the current natural calamities.

After adjustment of the advance sanctioned during 2008-09, funds available under CRF for the year 2009-10 is Rs.235.34 crore out of which the Centre's contribution is Rs.176.50 crore. In the meantime, the Central Government has released the 1st instalment of Rs.49.37 crore after adjustment of the entire advance

amount. Similarly the corresponding State's share of Rs.16.46 crore has also been made available by the State Government for flood relief work. Already the Government of Orissa has incurred expenditure to the tune of Rs.231.93 crore on account of relief and restoration efforts for management of notified natural calamities during the current year. Liabilities amounting to Rs.401.13 crore are pending due to expenditure committed during flood 2008, awaiting reimbursement from the Government of India. In this context, letter no.1430/CS(SRC) dated 18th June 2009, from the Chief Secretary, Orissa to the Cabinet Secretary is relevant.

Government of India in their Office Memorandum contained in F.No.20-4/2009-NDM-I dt.02 December 2009 of the Ministry of Home Affairs have entrusted the Department of Agriculture and Co-operation to take immediate appropriate action on the request of the Government of Orissa for assistance in the wake of drought 2009 and pest attack.

The requirement of financial assistance is to be appreciated in the context of successive natural calamities in the last three consecutive years. The funds available under CRF has been completely exhausted and no funds are available to meet the impending drought situation & future hazards, if any. The State Government has been incurring expenditure from the funds available in its own budget to mitigate the effects of notified natural calamities.

The Central Government has already been requested by the Government of Orissa to restore the corpus of CRF for the current year. Commensurate assistance from the Central Government at this critical juncture would be of immense help to the State Government to clear up the liabilities for Floods 2008 & 2009, and to meet the drought and pest attack situations.

The demand of the State Government for restoration of the corpus of CRF for the current year and sanction of Rs.2687 crore out of NCCF for flood 2008 has been made by the Hon'ble Chief Minister, Orissa vide letters No.UM-105/2009/CM Dt.14.05.2009, UM -1/09-110/CM Dt.04.06.2009, UM-1/09-240/CM Dt.22.09.2009 and UM-1/09-270/CM Dt.13.10.2009. The response of the Government of India is awaited.

Under the circumstances, the Government of Orissa requests that the Government of India may kindly take urgent steps to restore the corpus of the Calamity Relief Fund for the current year in addition to releasing the documented amount of Rs.2687.43 crore on account of floods 2008 to clear up the pending liabilities. In this context, our Annual Report on Natural Calamities for 2008-09 has already been sent to the Government of India vide our letter No.2836/SRC dated 31st October, 2009. It is requested to place the Annual Report before the High Level Committee (HLC) for sanction of the balance funds in favour of the State of Orissa at par with the similarly placed States.

In view of the severity of the drought situation in the State, the Government of Orissa requests for a Central Assistance of **Rs.2257.032 crore** for expenditure on relief and restoration measures due to notified natural calamities during the current year.

The Government of Orissa would appreciate an early and prompt response from the Government of India.

XXXXXX

Atmospheric Maximum Temperature for the month of March 2009

(in °C)

Sl. No.	Temperature Station	DATE																															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
1	Bhadrachalam	Max.	26.8	26.0	26.0	26.4	26.3	27.5	26.4	25.8	26.0			26.1	25.8	24.7	23.4	20.6	26.0	27.2		26.2	26.8	27.5	27.5	27.4	27.4	26.4	26.4	26.1	26.6	26.8	26.8
		Min.	21.6	21.6	22.0	22.1	24.4	22.3	21.0	22.7	23.8			21.9	20.1	20.5	22.2	20.6	20.8	22.2		21.3	23.8	23.0	23.8	24.4	23.0	23.2	23.2	23.0	20.6	20.5	20.5
2	Puri	Max.	21.4	21.4	21.2	21.9	21.0	22.4	22.0	22.0	20.6		21.5	22.4	21.4	20.8	20.6	21.2	21.2	21.2		22.9	23.8	22.0	21.8	21.7	22.7	22.4	22.6	22.6	22.6	22.6	22.6
		Min.	24.5	23.5	25.8	25.1	26.5	26.1	22.6	26.5	26.1	26.5		22.9	22.6	23.3	24.3	22.6	22.6	22.6	22.6		24.3	24.5	25.1	26.0	26.8	24.3	26.9	27.0	26.7	27.7	27.5
3	Dumkani	Max.	32.8	31.2	32.2	32.5	32.8	36.2	31.4	31.2	30.2		31.0	33.2	29.8	30.4	21.3	20.8	31.0	31.0		31.8	30.5	32.0	31.7	32.1	32.2	33.2	33.2	31.0	31.0	31.2	26.8
		Min.	34.0	22.8	22.5	21.6	22.5	21.4	21.8	23.3	22.8	21.2	22.2	20.2	19.9	22.2	20.4	21.2	23.0	23.0	23.0		24.8	24.6	22.3	24.0	22.6	22.2	22.2	23.0	25.8	26.2	24.4
4	Cuttack	Max.	0.0	27.9	31.7	30.0	40.3	32.3	28.0	0.0	26.4		24.1	26.3	0.0	33.1	26.7	26.8	27.8	27.8		27.1	0.0	27.4	27.7	28.6	26.6	26.1	26.1	0.0	27.6	27.4	27.4
		Min.	0.0	22.2	22.5	21.8	24.2	22.4	21.5	0.0	24.8	21.2	21.2	21.2	21.0	21.6	22.2	21.5	21.5	24.5	24.5		22.3	0.0	23.5	24.0	25.2	22.5	23.0	23.0	0.0	25.3	26.8
5	Puri	Max.	30.9	30.9	30.9	31.0	31.2	32.0	31.2	30.4	30.8		31.0	31.6	27.8	29.4	29.7	29.7	30.6	31.0		31.2	31.4	31.2	31.8	31.7	32.1	31.4	31.4	31.2	31.4	31.2	31.2
		Min.	23.8	22.4	24.2	22.5	24.8	24.4	22.9	25.8	24.4	24.4	24.4	22.1	22.9	22.0	23.1	21.1	22.8	21.0	21.0		20.7	23.4	23.9	24.6	25.4	22.4	25.0	25.8	26.6	27.0	27.2
6	Chandrabali	Max.	32.8	32.4	31.0	30.0	34.3	34.5	34.4	34.4	34.4		34.8	38.0	34.8	32.6	34.4	32.9	37.8	37.8		36.5	36.5	37.0	36.0	36.5	37.0	36.5	37.4	32.6	36.4	36.4	36.4
		Min.	22.9	21.1	22.8	23.5	24.2	24.0	24.0	24.0	24.0	24.0	21.5	20.6	21.4	21.4	21.6	21.4	23.5	24.5	24.5		22.3	23.4	24.6	21.8	23.5	22.8	23.6	25.0	26.6	26.8	26.8
7	Bilaspur	Max.	33.5	33.2	33.4	33.2	34.5	34.8	34.4	34.5	34.5		34.0	36.3	34.0	32.5	34.1	34.9	37.0	37.0		35.9	35.7	34.7	34.7	35.2	36.2	35.9	37.3	32.5	32.5	36.1	36.1
		Min.	22.2	19.0	21.5	19.4	21.7	23.9	20.8	23.5	23.0	20.5	16.5	16.5	16.5	16.5	22.2	20.8	20.7	22.4	21.4	23.2	23.8	23.8	23.6	22.8	23.2	23.2	23.2	24.6	30.3	30.3	30.3
8	Rampur	Max.	32.4	34.0	34.0	33.7	32.1	36.2	36.2	36.4	36.2		34.7	38.9	33.8	33.8	34.9	35.7	36.0	36.0		34.3	26.0	34.6	33.0	34.1	34.5	33.0	36.7	36.9	36.9	37.3	37.3
		Min.	18.1	18.8	18.8	15.5	20.8	20.4	17.2	25.4	21.5	17.0	17.4	18.0	17.4	19.2	21.8	18.8	18.8	18.6	18.6		19.8	20.2	21.4	20.7	20.6	21.0	21.0	21.4	22.0	21.8	21.8
9	Puri	Max.	35.0	32.0	34.7	34.8	40.0	37.5	36.8	36.5	36.5		37.6	38.0	38.0	38.0	38.0	38.0	38.0	38.0		36.5	35.5	37.2	37.4	38.0	37.2	37.2	38.8	39.5	40.4	40.4	40.4
		Min.	17.1	14.9	16.5	16.5	8.5	16.5	16.1	18.0	21.0	18.0	11.7	16.1	16.1	16.1	21.2	19.8	16.5	18.5	18.5	20.1	30.1	30.1	30.1	30.1	30.1	30.7	31.1	19.5	19.5	23.9	23.9
10	Guntur	Max.	34.4	30.4	31.6	30.2	30.2	31.2	30.8	31.2	30.8		31.7	36.4	36.2	33.7	37.0	37.2	38.8	38.8		24.2	26.8	37.8	38.0	38.0	37.0	34.8	38.5	40.0	40.4	40.4	40.4
		Min.	18.1	18.1	18.1	17.7	18.3	18.4	17.8	18.6	17.1	15.9	11.6	18.0	21.4	19.5	18.5	20.1	20.1	17.9	17.9		20.1	20.5	19.3	21.3	21.9	21.9	19.9	19.9	22.9	22.9	22.9
11	Tirumala	Max.	34.4	30.1	30.6	31.0	30.8	30.8	30.8	30.8	30.8		34.8	35.7	36.2	33.0	36.7	36.4	37.0	37.0		34.0	34.8	37.5	36.8	37.2	36.8	37.2	38.8	39.5	40.4	40.4	40.4
		Min.	15.9	17.0	18.0	18.3	18.1	19.3	18.4	18.3	18.3	18.3	16.9	17.6	18.4	18.0	18.2	18.8	19.2	18.9	19.2		19.9	20.5	18.5	20.4	20.4	20.7	21.1	19.5	19.5	23.9	23.9
12	Tirumala	Max.	0.0	37.0	38.5	39.2	40.2	39.4	38.4	38.4	38.4		37.7	38.4	38.2	33.7	37.0	37.2	38.8	38.8		24.2	26.8	37.8	38.0	38.0	37.0	34.8	38.5	40.0	40.4	40.4	40.4
		Min.	15.0	15.2	15.4	15.4	14.2	17.2	15.5	15.3	15.3	15.3	11.4	16.5	16.8	17.8	14.8	16.2	16.4	16.2	16.4		16.5	18.6	18.6	18.6	18.2	17.2	16.2	16.2	16.2	16.2	
13	Guntur	Max.	26.7	27.1	27.0	28.0	28.4	28.7	28.0	28.3	28.3		28.8	30.0	30.7	31.6	34.8	36.5	37.0	37.0		34.3	37.1	37.6	37.6	37.6	37.6	37.6	37.6	38.7	41.2	41.2	41.2
		Min.	15.9	15.0	15.9	15.9	16.1	16.0	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8		17.8	17.8	16.9	16.9	17.9	17.9	18.9	18.9	17.9	22.5	22.5
14	Maddur	Max.	0.0	20.0	0.0	0.0	0.0	39.6	30.7	0.0	0.0		38.2	36.8	37.6	0.0	35.0	35.4	37.0	37.0		37.0	36.4	0.0	35.0	37.2	37.8	38.0	38.8	39.0	33.0	33.0	33.0
		Min.	17.8	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	21.9	21.2	20.8	17.4	22.8	23.4	23.9	23.9		20.0	20.0	20.2	21.0	21.6	21.6	21.6	21.6	22.4	22.8	24.8	24.8
15	Dumkani	Max.	38.0	36.5	37.0	37.0	38.0	38.0	38.0	38.0	38.0		38.6	0.0	34.0	33.6	36.0	35.0	37.0	37.0		37.0	37.3	37.0	36.0	37.0	0.0	0.0	36.2	36.0	36.5	36.5	36.5
		Min.	17.9	16.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	15.9	15.9	15.9	13.6	16.9	17.9	18.9	18.9		19.9	17.8	16.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	20.4	20.4
16	Puri	Max.	0.0	34.4	36.8	36.8	35.4	36.2	36.8	0.0	0.0		35.0	34.4	34.6	34.1	35.4	36.0	36.6	36.6		32.4	34.4	36.4	36.0	36.0	36.4	36.4	36.4	36.4	36.0	36.0	36.4
		Min.	14.4	11.6	11.7	12.9	12.4	12.8	12.8	14.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8		16.4	18.2	18.8	17.2	17.2	17.4	17.4	18.2	19.2	19.2	19.2
17	Amaravati	Max.	0.0	38.7	38.7	38.9	40.1	38.1	38.1	38.1	38.1		36.7	36.9	34.9	34.6	35.1	38.7	38.7	38.7		35.1	35.9	37.7	37.7	38.1	38.1	37.9	38.1	40.1	40.1	40.1	40.1
		Min.	15.6	0.0	18.0	0.0	18.0	19.0	17.8	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6		19.0	20.8	21.0	21.4	22.8	22.0	22.0	20.8	20.8	19.0	19.0
18	Bilaspur	Max.	34.8	38.0	37.0	38.5	0.0	37.0	37.9	0.0	0.0		36.2	38.0	37.0	37.9	0.0	37.0	38.0	38.0		37.4	37.8	37.0	38.0	38.4	35.2	37.6	37.8	38.4	38.4	38.4	38.4
		Min.	19.4	17.2	20.0	18.5	19.5	22.0	20.8	2																							

LATEST POSITION OF MAJOR & MEDIUM RESERVOIRS

Major Reservoirs

Dt. 30.06.2009

Sl. No	Name of the Reservoir	Reservoir Salient Data						PRESENT POSITION					L.S. available on same date of last year		Reading Date
		D.S.L. (m)	F.R.L. (m)	M.W.L. (m)	L.S.C at FRL/MWL (Ham)	Reservoir Area at FRL (Sq Km.)	Reservoir Level (m)	Inflow (cumec)	Outflow (cumec)	L.S. available		% of L.S	Quantity (Ham)	% of L.S	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1	Hirakud	179.63 m.	192.02 m.	192.02 m.	482155	743.00	585.06 ft.	2190 cubic	6843 cubic	32193.00	6.68	35154.00	7.29	30.06.09	
		590.00 ft.	630.00 ft.	630.00 ft.											
2	Rengali	169.72 m.	123.50 m.	125.40 m.	341371	414.00	109.47	11.07	23.66	Below DSL	0.00	82971.00	24.31	30.06.09	
5	Indravati	625.00 m.	642.00 m.	643.00 m.	148550	110.00	625.20	5.15	0.00	1338.00	0.90	13380.04	9.01	30.06.09	
4	Upper Kolab	844.00 m.	853.00 m.	858.00 m.	93500	113.50	844.51	13.17	17.87	1656.00	1.77	2828.00	3.02	30.06.09	
3	Balimela	438.92 m.	462.06 m.	462.69 m.	267600	194.40	1437.50 ft.	62.32	62.32	Below DSL	0.00	18762.90	7.01	30.06.09	
		1440.00 ft.	1516.00 ft.	1518.00 ft.											
6	Jalaput	818.39 m.	838.20 m.	838.20 m.	96993	91.00	2762.35 ft.	19.08	37.99	18795.02	19.38	50676.81	52.25	30.06.09	
		2685.00 ft.	2750.00 ft.	2750.00 ft.											
7	Salandi	50.24 m.	62.30 m.	83.21 m.	55650	12.29	52.45	0.87	0.30	779.00	1.40	31651.00	56.88	30.06.09	
					1485819.00				Maj. Total :	54763.02	3.69	235423.75	15.84		

Sl. No	Name of the Reservoir	Reservoir Salient Data					PRESENT POSITION						L.S. available on same date of last year			Reading Date
		D.S.L. (m)	F.R.L. (m)	M.W.L. (m)	L.S.C at FRL/ MWL (Ham)	Reservoir Area at FRL (Sq Km.)	Reservoir Level (m)	Inflow (cumec)	Outflow (cumec)	L.S. available		Quantity (Ham)	% of L.S			
										Quantity (Ham)	% of L.S					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
MEDIUM RESERVOIRS																
8	Badanalla	183.70 m.	176.00 m.	176.00 m.	6714	4.30	167.03	0.37	0.00	739.60	11.02	778.00	11.59	30.06.09		
9	Baghuais Stage-I	88.50 m.	97.00 m.	97.13 m.	1368	3.36	89.51	0.21	0.20	106.61	7.68	731.00	52.67	30.06.09		
10	Baghua Stage-II	108.01 m.	113.85 m.	113.85 m.	3100	8.69	109.70	0.00	5.41	200.00	6.45	860.98	27.77	30.06.09		
11	Banlabahal	299.00 m.	305.00 m.	305.00 m.	2578	7.70	298.60	20.76	0.00	Below DSL	0.00	1358.67	52.71	30.06.09		
12	Bhanjanagar	80.77 m.	96.00 m.	95.71 m.	5768	8.94	87.55	0.00	0.00	1092.39	18.95	3605.00	62.52	30.06.09		
13	Bhaskel	618.44 m.	626.66 m.	628.19 m.	2778	6.42	619.87	0.00	0.21	210.45	7.58	325.23	11.71	30.06.09		
14	Budhatudhani	136.07 m.	148.38 m.	146.68 m.	1618	0.72	141.64	0.00	0.00	448.00	27.72	1062.50	65.75	30.06.09		
15	Dadaroghat	111.56 m.	118.87 m.	121.83 m.	2407	7.59	106.53	0.00	0.00	Below DSL	0.00	689.30	26.64	30.06.09		
16	Daha	112.40 m.	118.60 m.	118.60 m.	2195	5.52	112.96	0.00	0.00	123.00	5.60	567.00	25.83	30.06.09		
17	Derjang	140.20 m.	149.35 m.	150.00 m.	4648	6.43	143.15	0.00	0.00	622.96	13.40	35.67	0.77	30.06.09		
18	Dhanai	62.70 m.	88.70 m.	91.74 m.	1313	8.40	84.00	0.00	0.00	146.22	11.14	436.56	33.40	30.06.09		
19	Dumartahal	284.38 m.	289.56 m.	292.00 m.	1872	7.56	Below DSL					Below DSL		30.06.09		
20	Ghodahada	106.68 m.	117.80 m.	117.80 m.	3052	1.50	109.80	0.00	0.00	535.93	17.56	1969.01	64.52	30.06.09		
21	Gohira	226.00 m.	236.50 m.	236.35 m.	6536	10.94	Below DSL					2236.00	34.22	30.06.09		
22	Haladia	52.50 m.	67.64 m.	68.40 m.	670	0.72	N.R.							30.06.09		
23	Harabhangi	378.00 m.	387.50 m.	387.50 m.	8626	12.15	377.68	0.00	0.00	0.00	0.00	3517.00	40.76	30.06.09		

Sl. No	Name of the Reservoir	Reservoir Salient Data						PRESENT POSITION					I.S. available on same			Reading Date
		D.S.L. (m)	F.R.L. (m)	M.W.L. (m)	L.S.C at FRL/ MWL (Ham)	Reservoir Area at FRL (Sq Km.)	Reservoir Level (m)	Inflow (cumec)	Outflow (cumec)	L.S. available		date of last year				
										Quantity (Ham)	% of L.S	Quantity (Ham)	% of L.S			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
24	Hanhanjore	141.45 m.	147.50 m.	148.30 m.	5868	18.45	Below DSL					1700.00	28.97	30.06.09		
25	Jambira	57.90 m.	63.00 m.	65.50 m.	1620	29.28	58.70	0.17	0.17	109.00	6.73	1664.00	102.72	30.06.09		
26	Jharbandh	250.50 m.	253.70 m.	256.65 m.	1081	4.60	Below DSL					43.90	4.06	30.06.09		
27	Kalo	71.32 m.	77.70 m.	77.70 m.	2424	5.34	71.86	0.03	2.18	99.00	4.08	1624.00	75.25	30.06.09		
28	Kanjhan	398.00 m.	408.50 m.	408.50 m.	3452	5.17	Below DSL					1740.00	50.41	30.06.09		
29	Kansabahal	219.50 m.	226.00 m.	228.00 m.	2872	5.06	223.99	0.41	0.00	1072.75	37.35	1415.63	49.29	30.06.09		
30	Khadke	302.50 m.	313.50 m.	313.50 m.	5622	9.80	308.82	0.20	4.00	1699.66	30.23	4166.91	74.12	30.06.09		
31	Kuanta	130.30 m.	135.70 m.	135.70 m.	1750	4.86	130.38	0.00	0.00	20.00	1.14	962.00	49.26	30.06.09		
32	Nesa	257.15 m.	263.00 m.	264.50 m.	658	1.70	258.97	0.00	0.31	128.11	19.15	660.37	100.30	30.06.09		
33	Piasalo	533.00 m.	541.00 m.	544.00 m.	1440	5.25	533.10	2.31	0.00	10.00	0.69	508.00	35.28	30.06.09		
34	Pitamahal	234.00 m.	243.84 m.	246.88 m.	2016	3.55	238.66	8.32	0.04	640.42	31.77	1652.89	81.99	30.06.09		
35	Ramal	100.44 m.	109.73 m.	110.64 m.	7584	16.69	101.41	0.00	0.00	364.00	4.80	3945.00	52.02	30.06.09		
36	Remal	107.20 m.	121.00 m.	121.00 m.	1570	1.96	Below DSL					715.00	45.54	30.06.09		
37	Saipala	300.07 m.	306.32 m.	307.85 m.	1639	5.37	Below DSL					Below DSL		30.06.09		
38	Salia	46.31 m.	58.53 m.	61.28 m.	5275	9.84	50.93	10.86	10.88	604.05	11.45	2226.18	42.20	30.06.09		
39	Sarafgarh	297.00 m.	307.50 m.	307.50 m.	1215	1.52	Below DSL					42.50	3.50	30.06.09		
40	Saliguda	182.38 m.	192.63 m.	194.29 m.	6768	11.77	Below DSL					4585.00	67.76	30.06.09		

Sl. No	Name of the Reservoir	Reservoir Salient Data						PRESENT POSITION					L.S. available on same date of last year			Reading Date
		D.S.L. (m)	F.R.L. (m)	M.W.L. (m)	L.S.C at FRL/ MWL (Ham)	Reservoir Area at FRL (Sq Km.)	Reservoir Level (m)	Inflow (cumec)	Outflow (cumec)	L.S. available		Quantity (Ham)	% of L.S			
										Quantity (Ham)	% of L.S					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
41	Sorada	81.97 m.	92.30 m	90.83 m	4975	9.87	87.33	0.00	0.00	1395.65	28.05	1669.63	33.56	30.06.09		
42	Sundar	301.25 m.	310.00 m	310.00 m	4440	6.98	Below DSL					276.00	8.22	30.06.09		
43	Sunei	72.00 m.	85.00 m.	85.00 m.	6911	6.82	75.65	0.00	2.96	1043.18	15.10	3682.64	53.29	30.06.09		
44	Talasara	288.30 m.	296.30 m.	296.30 m.	1655	3.51	Below DSL					154.00	9.25	30.06.09		
45	Upper Jonk	343.50 m.	350.60 m	350.60 m	3525	14.70	Below DSL					1070.50	30.37	30.06.09		
					129826				Med. Total :	11409	8.79	52779	40.65			
					1615544.79				G. Total :	66172.00	4.10	288203.02	17.84			

LATEST POSITION OF MAJOR & MEDIUM RESERVOIRS

Major Reservoirs

Dt. 31.07.2009

Sl. No	Name of the Reservoir	Reservoir Salient Data						PRESENT POSITION				L.S. available on same date of last year	
		D.S.L. (m)	F.R.L. (m)	M.W.L. (m)	L.S.C. at FRL/ MWL (Ham)	Reservoir Area at FRL (Sq Km.)	Reservoir Level (m)	Inflow (cumec)	Outflow (cumec)	L.S. available		Quantity (Ham)	% of L.S.
										Quantity (Ham)	% of L.S.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Hirakud	179.63 m.	192.02 m.	192.02 m.	482155	743.00	606.71 ft.	30356 Cusec	50769 Cusec	132720.00	27.53	142405.00	29.55
		590.00 ft.	630.00 ft.	630.00 ft.									
2	Rengali	109.72 m.	123.50 m.	126.40 m.	341371	414.00	115.18	948.62	562.54	99741.00	29.22	178371.00	52.25
5	Indravati	625.00 m.	642.00 m.	643.00 m.	148550	110.00	635.50	293.48	180.69	79475.33	53.50	12042.04	8.11
4	Upper Kolab	844.00 m.	858.00 m.	858.00 m.	93520	113.50	848.47	47.24	50.39	20197.00	21.60	3739.00	4.00
3	Ballimela	436.92 m.	462.08 m.	462.69 m.	267600	194.40	1456.80 ft.	150.66	121.17	38190.85	0.00	18762.90	7.01
		1440.00 ft.	1516.00 ft.	1518.00 ft.									
6	Jalaput	818.39 m.	838.20 m.	838.20 m.	90893	91.00	2707.30 ft.	78.64	21.04	48866.94	50.18	43745.01	45.10
		2685.00 ft.	2750.00 ft.	2750.00 ft.									
7	Salandi	50.24 m.	62.30 m.	63.21 m.	50650	12.29	60.76	3.19	1.00	6484.00	11.65	24507.00	44.04
					1488919.00				Maj. Total :	425475.12	26.04	423631.95	28.51

Sl. No	Name of the Reservoir	Reservoir Salient Data					PRESENT POSITION					L.S. available on same date of last year	
		D.S.L. (m)	F.R.L. (m)	M.W.L. (m)	L.S.C at FRL/ MWL (Ham)	Reservoir Area at FRL (Sq Km.)	Reservoir Level (m)	Inflow (cumec)	Outflow (cumec)	L.S. available		L.S. available on same date of last year	
		3	4	5	6	7	8	9	10	Quantity (Ham)	% of L.S	Quantity (Ham)	% of L.S

MEDIUM RESERVOIRS

8	Badanalla	163.70 m.	176.00 m.	176.00 m.	6714	4.30	175.10	16.08	12.00	5128.40	76.35	925.20	13.78
9	Baghmati Stage-I	88.50 m.	97.00 m.	97.13 m.	1388	3.36	89.70	1.18	5.70	132.14	9.52	682.00	49.14
10	Baghmati Stage-II	108.01 m.	113.85 m.	113.85 m.	3100	8.69	113.62	1.00	7.00	2699.90	93.55	1209.94	39.03
11	Bankabahal	269.00 m.	305.00 m.	305.00 m.	2576	7.70	303.11	0.00	3.64	1335.37	51.80	1659.59	65.93
12	Bhanjanagar	80.77 m.	96.00 m.	95.71 m.	5766	8.94	92.20	3.27	0.00	3145.29	54.55	3970.00	66.85
13	Bhaskel	618.44 m.	626.66 m.	628.19 m.	2778	6.42	622.48	1.84	1.15	827.85	29.80	314.45	11.32
14	Budhabudhani	136.07 m.	146.38 m.	146.68 m.	1616	0.72	145.98	3.00	30.00	1472.00	91.09	995.00	61.57
15	Dadonaghat	111.56 m.	116.87 m.	121.83 m.	2407	7.59	118.83	2.07	2.33	2414.50	100.31	1245.15	51.73
16	Daba	112.40 m.	118.60 m.	118.60 m.	2195	5.52	117.77	3.85	6.17	1803.00	82.14	795.00	36.22
17	Derjang	140.20 m.	149.35 m.	150.00 m.	4648	9.43	148.25	0.06	4.06	3247.11	69.86	590.74	12.71
18	Dhanel	82.70 m.	98.70 m.	91.74 m.	1313	8.40	88.84	3.39	2.05	1255.96	95.66	645.75	49.18
19	Dumrabahal	284.38 m.	289.56 m.	292.00 m.	1872	7.56	289.55	0.69	0.00	1926.00	102.88	Below DSL	
20	Ghodahada	106.68 m.	117.80 m.	117.80 m.	3052	1.50	111.60	0.00	4.57	1002.82	32.86	1786.19	58.53
21	Gohira	226.00 m.	235.50 m.	236.35 m.	6535	10.94	229.96	0.00	82.18	1740.00	25.63	3898.00	59.65
22	Haladia	52.50 m.	67.64 m.	68.40 m.	670	0.72	65.95	0.68	2.00	322.90	48.08	574.00	85.67
23	Harabhang	378.00 m.	367.50 m.	387.50 m.	8825	12.15	383.05	9.86	7.00	4241.25	49.17	3110.50	36.06

Sl. No.	Name of the Reservoir	Reservoir Salient Data							PRESENT POSITION				L.S. available on same date of last year	
		D.S.L. (m)	F.R.L. (m)	M.W.L. (m)	L.S.C at FRL/ MWL (Ham)	Reservoir Area at FRL (Sq Km.)	Reservoir Level (m)	Inflow (cumec)	Outflow (cumec)	L.S. available		Quantity (Ham)	% of L.S	% of L.S
										Quantity (Ham)	% of L.S			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	14
24	Haththipore	141.45 m.	147.50 m.	146.30 m.	5866	16.45	146.82	1.81	0.00	7636.76	130.14	7204.44	122.78	
25	Jambira	57.90 m.	63.00 m.	65.50 m.	1620	29.28	59.90	0.40	1.50	345.00	21.30	1691.00	104.38	
26	Jharbandh	250.50 m.	253.70 m.	255.65 m.	1081	4.60	253.74	0.15	1.15	969.20	89.66	21.00	1.94	
27	Kalb	71.32 m.	77.70 m.	77.70 m.	2424	5.34	75.16	1.65	3.49	1131.00	46.66	1804.00	74.42	
28	Kanghant	306.00 m.	408.50 m.	408.50 m.	3452	5.17	405.47	1.03	3.49	2148.00	62.23	2672.00	77.41	
29	Kansabahal	219.50 m.	228.00 m.	228.00 m.	2872	5.06	225.17	0.00	1.30	1544.60	53.78	1906.86	69.52	
30	Khadkei	302.50 m.	313.50 m.	313.50 m.	5622	9.80	310.74	2.38	5.90	3310.13	58.68	4521.92	80.43	
31	Kuannia	130.30 m.	135.70 m.	135.70 m.	1750	4.86	135.07	7.00	21.00	1470.00	84.00	1502.00	85.83	
32	Nesa	257.15 m.	263.00 m.	264.50 m.	658	1.70	258.78	0.23	0.63	150.75	22.90	631.41	95.90	
33	Pilansali	533.00 m.	541.00 m.	544.00 m.	1440	5.25	540.88	1.02	2.29	1405.00	97.57	431.60	29.97	
34	Pitamahal	234.00 m.	243.84 m.	246.88 m.	2016	3.55	239.57	0.00	0.39	787.96	39.09	2006.95	104.02	
35	Ramlaf	100.44 m.	109.73 m.	110.64 m.	7584	16.69	107.65	5.65	7.86	4915.00	64.81	5737.50	75.66	
36	Ramal	107.20 m.	121.00 m.	121.00 m.	1570	1.98	119.38	0.50	2.00	1301.00	82.87	636.00	40.51	
37	Saspala	300.07 m.	306.02 m.	307.65 m.	1639	5.37	304.34	0.44	2.75	927.18	50.42	Below DSL		
38	Sela	48.31 m.	58.53 m.	61.28 m.	5275	9.84	56.34	48.13	37.49	3354.87	63.60	2390.66	45.32	
39	Sarafgarh	297.00 m.	307.50 m.	307.50 m.	1215	1.52	302.78	0.57	1.50	452.00	37.20	809.60	68.03	
40	Saiguda	182.38 m.	192.63 m.	194.29 m.	6768	11.77	185.40	0.00	0.00	946.00	13.98	5229.00	77.26	

Sl. No	Name of the Reservoir	Reservoir Salient Data						PRESENT POSITION				L.S. available on same date of last year	
		D.S.L. (m)	F.R.L. (m)	M.W.L. (m)	L.S.G. at FRL/ MWL (Ham)	Reservoir Area at FRL (Sq Km.)	Reservoir Level (m)	Inflow (cumec)	Outflow (cumec)	L.S. available		L.S. available on same date of last year	
										Quantity (Ham)	% of L.S	Quantity (Ham)	% of L.S
1	2	3	4	5	6	7	8	9	10	11	12	13	14
41	Sorada	81.97 m	92.30 m	90.83 m	4975	9.87	91.53	3.20	11.45	4351.82	87.47	972.89	19.58
42	Sundar	301.25 m	310.00 m	310.00 m	4440	6.98	306.54	0.00	0.00	1842.00	41.49	290.00	6.53
43	Sunei	72.00 m	85.00 m	85.00 m	6911	6.82	81.39	0.89	6.53	3676.90	53.21	5023.88	72.70
44	Talanara	288.30 m	296.30 m	296.30 m	1665	3.51	289.41	0.80	1.50	149.00	8.05	1379.00	82.82
45	Upper Junk	343.50 m	350.80 m	350.80 m	3525	14.70	352.00	25.68	25.16	5637.78	159.95	771.00	21.87
					129826				Med. Total :	81344	62.60	70254	54.11
					1615644.79				G. Total :	506818.66	31.37	493885.95	30.57

LATEST POSITION OF MAJOR & MEDIUM RESERVOIRS

Major Reservoirs

Dt. 31.08.2009

Sl. No	Name of the Reservoir	Reservoir Salient Data						PRESENT POSITION						L.S. available on same date of last year		Reading Date
		D.S.L. (m)	F.R.L. (m)	M.W.L. (m)	L.S.C at FRL/ MWL (Ham)	Reservoir Area at FRL (Sq Km.)	Reservoir Level (m)	Inflow (cumec)	Outflow (cumec)	Quantity (Ham)	% of L.S	Quantity (Ham)	% of L.S	Quantity (Ham)	% of L.S	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Hirakud	179.83 m.	192.02 m.	192.02 m.	482155	743.00	631.15 ft.	96459 Cumec	26658 Cumec	318603.00	66.08	381632.00	79.15			31.08.09
		590.00 ft.	630.00 ft.	630.00 ft.												
2	Rengail	108.72 m.	123.50 m.	125.40 m.	341371	414.00	118.23	988.48	591.33	173271.00	50.76	294139.00	86.16			31.08.09
5	Indravati	625.00 m.	642.00 m.	643.00 m.	148550	110.00	637.20	163.49	50.71	96041.59	64.85	86783.97	58.42			31.08.09
4	Upper Kolab	844.00 m.	858.00 m.	858.00 m.	93500	113.50	848.29	101.87	8.79	24202.00	25.88	32536.00	34.80			31.08.09
3	Balimela	438.92 m.	462.08 m.	462.69 m.	267600	194.40	1459.40 ft.	250.23	102.76	44813.05	16.75	73735.65	27.55			31.08.09
		1440.00 ft.	1516.00 ft.	1518.00 ft.												
6	Jalsput	818.39 m.	838.20 m.	838.20 m.	96093	91.00	2730.30 ft.	67.73	0.81	53945.84	55.52	69891.01	71.86			31.08.09
		2685.00 ft.	2750.00 ft.	2750.00 ft.												
7	Saijandi	50.24 m.	82.30 m.	83.21 m.	55650	12.29	87.36	72.71	2.00	15537.00	27.92	37743.00	67.82			31.08.09
					1485819.00				Major Total	726313.48	48.88	976260.63	65.71			

Sl. No	Name of the Reservoir	Reservoir Sallent Data					PRESENT POSITION					L.S. available on same date of last year			Reading Date
		D.S.L. (m)	F.R.L. (m)	M.W.L. (m)	L.S.C at FRL/ MWL (Ham)	Reservoir Area at FRL (Sq Km.)	Reservoir Level (m)	Inflow (cumec)	Outflow (cumec)	L.S. available		Quantity (Ham)	% of L.S		
										Quantity (Ham)	% of L.S				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
MEDIUM RESERVOIRS															
8	Badanalla	163.70 m.	176.00 m.	176.00 m.	6714	4.30	175.10	40.75	7.00	5126.40	76.35	1043.60	15.54	31.08.09	
9	Baghatati Stage-I	88.50 m.	97.00 m.	97.13 m.	1388	3.36	88.72	1.90	2.60	22.00	1.59	379.14	27.32	31.08.09	
10	Baghus Stage-II	108.01 m.	113.85 m.	113.85 m.	3100	8.69	112.94	3.34	3.18	2362.70	76.22	1469.34	47.40	31.08.09	
11	Bankabahal	299.00 m.	305.00 m.	305.00 m.	2578	7.70	302.98	9.03	4.95	1261.05	48.92	1852.33	71.85	31.08.09	
12	Bhanjanagar	80.77 m.	96.00 m.	95.71 m.	5766	8.94	92.84	12.88	1.41	3533.28	61.28	4656.00	80.92	31.08.09	
13	Bhoskol	618.44 m.	626.66 m.	626.19 m.	2778	6.42	622.54	2.09	1.40	845.85	30.45	1235.05	44.46	31.08.09	
14	Budhabudhani	136.07 m.	146.38 m.	146.68 m.	1616	0.72	146.12	0.56	1.62	1535.00	94.99	1157.00	71.60	31.08.09	
15	Dadaraghati	111.56 m.	118.87 m.	121.63 m.	2407	7.59	118.20	3.36	0.56	2044.82	84.95	2423.70	100.69	31.08.09	
16	Daha	112.40 m.	118.60 m.	118.60 m.	2195	5.52	118.36	26.27	41.00	2070.00	94.31	496.00	22.55	31.08.09	
17	Denjang	140.20 m.	149.35 m.	150.00 m.	4646	9.43	148.99	17.67	4.89	3819.12	82.17	2469.13	53.12	31.08.09	
18	Dhanai	82.70 m.	86.70 m.	91.74 m.	1313	8.40	88.66	11.27	5.59	1301.38	99.12	611.27	47.01	31.08.09	
19	Dumabahal	284.38 m.	289.56 m.	292.00 m.	1872	7.56	288.63	3.42	4.23	1975.50	105.53	1792.30	96.74	31.08.09	
20	Dhodahada	100.08 m.	117.80 m.	117.80 m.	3052	1.50	108.85	0.96	0.00	544.15	17.83	1318.82	43.21	31.08.09	
21	Gohira	226.00 m.	235.50 m.	236.35 m.	6535	10.94	231.92	20.43	0.18	3104.00	47.50	5850.00	89.52	31.08.09	
22	Haladia	52.50 m.	67.64 m.	68.40 m.	670	0.72	64.75	0.80	0.60	152.00	22.69	474.00	70.75	31.08.09	
23	Harabhangri	378.00 m.	387.50 m.	387.50 m.	8625	12.15	384.90	43.50	6.00	5812.51	67.30	3636.25	42.84	31.08.09	

Sl. No	Name of the Reservoir	Reservoir Salient Data						PRESENT POSITION					L.S. available on same date of last year			Reading Date
		D.S.L. (m)	F.R.L. (m)	M.W.L. (m)	L.S.C at FRL/ MWL (Hm)	Reservoir Area at FRL (Sq Km.)	Reservoir Level (m)	Inflow (cumec)	Outflow (cumec)	L.S. available		Quantity (Hm)	% of L.S			
										Quantity (Hm)	% of L.S					
1	-2	3	4	5	6	7	8	9	10	11	12	13	14	15		
24	Harthajore	141.45 m.	147.50 m.	146.30 m.	5858	18.45	146.90	9.08	8.50	5552.80	94.63	5237.60	89.26	31.08.09		
25	Jambira	57.90 m.	63.00 m.	65.50 m.	1620	29.28	59.52	0.60	1.60	262.00	16.17	1650.00	101.85	31.08.09		
26	Jharbandh	250.50 m.	253.70 m.	256.65 m.	1081	4.80	253.76	0.00	2.32	977.80	90.45	409.00	37.84	31.08.09		
27	Kalo	71.32 m.	77.70 m.	77.70 m.	2424	5.34	76.70	17.81	27.88	1884.00	76.90	1784.00	73.60	31.08.09		
28	Kanjhari	398.00 m.	408.50 m.	406.50 m.	3452	5.17	408.10	39.99	39.99	3280.00	95.03	2600.00	81.12	31.08.09		
29	Kansabhai	219.50 m.	228.00 m.	228.00 m.	2872	5.06	226.39	2.62	2.10	2084.06	72.56	2450.88	85.34	31.08.09		
30	Khadkol	302.50 m.	313.50 m.	313.50 m.	5622	9.80	309.18	4.55	7.00	2307.04	41.04	4852.76	86.32	31.08.09		
31	Kuanna	130.30 m.	135.70 m.	135.70 m.	1750	4.86	135.09	5.90	0.69	1480.00	84.57	1607.00	91.83	31.08.09		
32	Nasa	257.15 m.	263.00 m.	264.50 m.	658	1.70	269.95	0.06	0.84	220.80	33.54	636.48	96.67	31.08.09		
33	Pilasahi	533.00 m.	541.00 m.	544.00 m.	1440	5.25	541.00	4.55	4.25	1440.00	100.00	1092.50	75.87	31.08.09		
34	Pitamahal	234.00 m.	243.84 m.	246.88 m.	2016	3.55	240.75	0.60	0.04	1035.12	51.34	2032.81	100.83	31.08.09		
35	Ramial	100.44 m.	109.73 m.	110.64 m.	7584	16.89	108.30	45.02	3.08	5675.00	74.83	5850.00	77.14	31.08.09		
36	Remai	107.20 m.	121.00 m.	121.00 m.	1570	1.98	120.38	20.26	22.94	1467.00	93.44	1340.00	85.35	31.08.09		
37	Salonla	300.07 m.	306.32 m.	307.86 m.	1839	5.37	305.20	1.13	0.00	1288.66	70.07	462.28	25.14	31.08.09		
38	Salla	48.31 m.	58.53 m.	61.26 m.	5275	9.84	57.26	21.93	1.58	4075.19	77.25	3669.65	69.57	31.08.09		
39	Sarafgarh	297.00 m.	307.50 m.	307.50 m.	1215	1.52	305.18	1.48	0.10	803.60	96.14	1150.00	94.65	31.08.09		
40	Satiguda	182.38 m.	192.63 m.	194.29 m.	6768	11.77	186.45	60.86	0.00	1505.00	22.74	6876.00	101.60	31.08.09		

Sl. No.	Name of the Reservoir	Reservoir Salient Data						PRESENT POSITION					L.S. available on same date of last year			Reading Date
		D.S.L. (m)	F.R.L. (m)	M.W.L. (m)	L.S.C. at FRL/ MWL (Ham)	Reservoir Area at FRL (Sq Km.)	Reservoir Level (m)	Inflow (cumec)	Outflow (cumec)	Quantity (Ham)	% of L.S.	Quantity (Ham)	% of L.S.	Quantity (Ham)	% of L.S.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		15
41	Scanda	81.97 m.	92.30 m	90.83 m	4975	9.87	91.37	43.93	0.00	4161.04	83.64	3083.51	61.98		61.98	31.08.09
42	Sundar	301.25 m.	310.00 m	310.00 m	4440	8.98	306.53	2.55	0.00	1751.50	40.12	1616.50	36.41		36.41	31.08.09
43	Sunel	72.00 m.	85.00 m.	85.00 m.	6911	6.82	83.48	16.91	4.27	5137.07	74.34	5023.06	72.70		72.70	31.08.09
44	Talasara	289.30 m.	296.30 m.	296.30 m.	1665	3.51	291.60	6.90	0.07	532.00	31.95	1602.00	96.22		96.22	31.08.09
45	Upper Jonk	343.50 m.	350.60 m	350.60 m	6450	14.70	352.00	6.00	7.50	5637.78	87.41	3397.50	52.67		52.67	31.08.09
					132751					Med. Total :	66.35	89556	67.46		67.46	31.08.09
					1618570.16					G. Total :	50.32	1065816.71	65.85		65.85	

LATEST POSITION OF MAJOR & MEDIUM RESERVOIRS

Major Reservoirs

DI. 30.09.2009

Sl. No	Name of the Reservoir	Reservoir Salient Data					PRESENT POSITION					L.S. available on same date of last year		Reading Date
		D.S.L. (m)	F.R.L. (m)	M.W.L. (m)	L.S.C at FRL/ MWL (Ham)	Reservoir Area at FRL (Sq Km.)	Reservoir Level (m)	Inflow (cumec)	Outflow (cumec)	Quantity (Ham)	% of L.S	Quantity (Ham)	% of L.S	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Hirakud	179.83 m.	192.02 m.	192.02 m.	482155	743.00	623.02 ft.	20719 Cusec	20719 Cusec	351783.00	72.56	470812.00	97.65	30.09.09
		500.00 ft.	630.00 ft.	630.00 ft.										
2	Rangali	109.72 m.	123.50 m.	125.40 m.	341371	414.00	120.00	448.04	263.63	227871.00	66.75	342451.00	100.32	30.09.09
5	Indravati	925.00 m.	642.00 m.	643.00 m.	148550	110.00	637.90	77.76	89.04	102862.99	69.24	132783.25	89.39	30.09.09
4	Upper Kolab	644.00 m.	608.00 m.	658.00 m.	93500	113.50	849.79	38.98	30.40	26644.00	28.50	51251.00	54.81	30.09.09
3	Balmuda	438.92 m.	462.08 m.	462.69 m.	267500	194.40	1464.20 ft.	135.21	41.81	57632.95	21.54	97663.30	36.50	30.09.09
		1440.00 ft.	1516.00 ft.	1516.00 ft.										
6	Jalaput	818.39 m.	838.20 m.	838.20 m.	90993	91.00	2733.65 ft.	34.66	22.65	80318.62	62.19	83570.75	86.16	30.09.09
		2665.00 ft.	2750.00 ft.	2750.00 ft.										
7	Salandi	50.24 m.	82.30 m.	83.21 m.	55650	12.29	70.62	14.51	51.20	22138.00	39.78	48235.00	86.68	30.09.09
					1435819.00				Maj. Total :	849250.56	57.16	1226766.30	82.56	

Sl. No	Name of the Reservoir	Reservoir Salient Data					PRESENT POSITION					L.S. available on same date of last year			Reading Date
		D.S.L. (m)	F.R.L. (m)	M.W.L. (m)	L.S.C at FRL/ MWL (Ham)	Reservoir Area at FRL (Sq Km.)	Reservoir Level (m)	Inflow (cumec)	Outflow (cumec)	L.S. available		Quantity (Ham)	% of L.S		
										Quantity (Ham)	% of L.S				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
MEDIUM RESERVOIRS															
8	Badanalla	163.70 m.	176.00 m.	178.00 m.	6/14	4.30	174.08	9.22	7.00	4066.80	60.57	3204.02	47.72	30.09.09	
9	Baghiati Stage-I	88.50 m.	97.00 m.	97.13 m.	1386	3.36	88.30	3.82	0.00	Below DSL		1574.14	113.41	30.09.09	
10	Baghua Stage-II	108.01 m.	113.85 m.	113.85 m.	3100	8.69	111.18	7.10	7.10	1203.02	38.81	2749.80	88.70	30.09.09	
11	Bankabahal	299.00 m.	305.00 m.	305.00 m.	2576	7.70	303.89	0.16	4.75	1793.59	69.57	2045.26	79.34	30.09.09	
12	Bhanjanagar	80.77 m.	96.00 m.	95.71 m.	5766	8.94	93.65	9.61	1.41	4106.79	71.22	4730.00	82.03	30.09.09	
13	Bhaskol	618.44 m.	626.66 m.	628.19 m.	2778	6.42	620.30	1.05	2.30	292.85	10.54	2876.65	96.42	30.09.09	
14	Budhabudhani	136.07 m.	146.38 m.	146.88 m.	1616	0.72	145.02	1.04	0.00	1210.00	74.88	1500.50	92.85	30.09.09	
15	Dadaraghathi	111.56 m.	116.87 m.	121.83 m.	2407	7.59	117.86	1.90	3.69	1869.62	77.67	2441.20	101.42	30.09.09	
16	Daha	112.40 m.	116.60 m.	118.60 m.	2195	5.52	118.13	12.27	5.33	1960.00	89.29	2040.00	92.94	30.09.09	
17	Derjang	140.20 m.	149.35 m.	150.00 m.	4546	9.43	148.45	0.20	6.13	3386.34	72.66	4427.28	96.25	30.09.09	
18	Dhanai	82.70 m.	88.70 m.	91.74 m.	1313	8.40	88.33	2.27	1.29	1182.17	90.04	1312.73	99.98	30.09.09	
19	Dumatabahal	284.38 m.	289.56 m.	292.00 m.	1872	7.56	288.31	1.02	0.00	1248.40	66.69	1835.00	98.02	30.09.09	
20	Ghodahada	106.68 m.	117.80 m.	117.80 m.	3052	1.50	108.70	8.40	0.00	284.40	9.32	2440.97	79.98	30.09.09	
21	Gohira	226.00 m.	235.50 m.	236.35 m.	6535	10.94	228.28	0.00	6.25	1400.00	21.42	6411.00	98.10	30.09.09	
22	Haladia	52.50 m.	67.64 m.	68.40 m.	670	0.72	66.10	2.53	2.00	350.00	52.24	598.00	89.25	30.09.09	
23	Harabhanghi	378.00 m.	387.50 m.	387.50 m.	8625	12.15	385.90	11.40	7.00	6755.00	76.32	7630.00	90.78	30.09.09	

Sl. No	Name of the Reservoir	Reservoir Salient Data						PRESENT POSITION					L.S. available on same date of last year			Roading Date
		D.S.L. (m)	F.R.L. (m)	M.W.L. (m)	L.S.C at FRL/ MWL (Ham)	Reservoir Area at FRL (Sq Km)	Reservoir Level (m)	Inflow (cumec)	Outflow (cumec)	L.S. available		Quantity (Ham)	% of L.S			
										Quantity (Ham)	% of L.S					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
24	Hathupore	141.45 m.	147.50 m.	146.30 m.	5868	15.45	147.20	0.00	11.35	5710.00	97.31	5347.91	91.14	30.09.09		
25	Jambira	57.90 m.	63.00 m.	65.50 m.	1620	20.28	60.75	1.60	0.50	591.00	36.48	1691.00	104.38	30.09.09		
26	Jharbandh	250.50 m.	253.70 m.	256.65 m.	1081	4.60	252.41	1.41	1.13	474.10	43.86	960.62	88.86	30.09.09		
27	Kabo	71.32 m.	77.70 m.	77.70 m.	2424	5.34	77.32	7.46	2.68	2181.00	89.98	1999.00	82.47	30.09.09		
28	Kanjhari	398.00 m.	408.50 m.	406.50 m.	3452	5.17	408.07	3.97	6.06	3262.00	94.51	2948.00	85.41	30.09.09		
29	Kansabahal	219.50 m.	228.00 m.	228.00 m.	2872	5.06	228.46	0.56	2.10	2116.26	73.69	2435.53	84.80	30.09.09		
30	Khadkei	302.50 m.	313.50 m.	313.50 m.	5622	9.80	311.05	3.26	7.33	3528.83	62.77	5188.84	92.31	30.09.09		
31	Kuarria	130.30 m.	135.70 m.	135.70 m.	1750	4.86	134.27	4.86	2.55	1138.00	85.03	1660.00	94.86	30.09.09		
32	Nesa	257.15 m.	263.00 m.	264.50 m.	658	1.70	261.30	0.41	0.83	389.59	59.17	634.79	96.41	30.09.09		
33	Pilarsaki	533.00 m.	541.00 m.	544.00 m.	1440	5.25	540.96	2.47	1.98	1428.00	90.17	1440.00	100.00	30.09.09		
34	Pitamahal	234.00 m.	243.84 m.	246.88 m.	2016	3.55	241.13	0.00	0.87	1142.22	56.66	2088.94	103.62	30.09.09		
35	Ramjal	100.44 m.	109.73 m.	110.54 m.	7584	16.89	109.78	6.07	7.07	7656.00	100.00	7743.00	102.10	30.09.09		
36	Renal	107.20 m.	121.00 m.	121.00 m.	1570	1.98	119.08	2.34	2.80	1244.00	79.24	1404.00	89.43	30.09.09		
37	Saipala	300.07 m.	306.32 m.	307.85 m.	1839	5.37	304.42	0.00	1.47	959.18	52.16	1834.56	99.76	30.09.09		
38	Salla	48.31 m.	58.53 m.	61.28 m.	5275	9.64	58.54	6.26	4.47	5219.41	98.95	5313.00	100.72	30.09.09		
39	Sarafgarh	297.00 m.	307.50 m.	307.50 m.	1215	1.52	303.89	0.61	2.00	603.00	49.63	1176.50	96.83	30.09.09		
40	Satguda	182.38 m.	192.63 m.	194.29 m.	6768	11.77	186.40	23.37	0.00	1477.00	21.82	6822.00	100.80	30.09.09		

Sl. No	Name of the Reservoir	Reservoir Salient Data					PRESENT POSITION					L.S. available on same date of last year		Reading Date
		D.S.L. (m)	F.R.L. (m)	M.W.L. (m)	L.S.C at FRL/ MfWL (Ham)	Reservoir Area at FRL (Sq Km.)	Reservoir Level (m)	Inflow (cumec)	Outflow (cumec)	L.S. available		Quantity (Ham)	% of L.S	
										Quantity (Ham)	% of L.S			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
41	Sorada	81.97 m.	92.30 m	90.83 m	4975	9.87	91.14	9.78	0.00	3908.32	78.56	4605.04	92.56	30.09.09
42	Sundar	301.25 m.	310.00 m	310.00 m	4440	6.98	305.00	0.00	4.37	1040.00	40.12	4212.00	94.86	30.09.09
43	Sunei	72.00 m.	85.00 m.	85.00 m.	6911	6.62	83.24	22.14	7.74	4955.64	71.71	5219.40	75.53	30.09.09
44	Talasara	288.30 m.	296.30 m.	296.30 m.	1665	3.51	291.85	0.37	1.50	587.00	35.26	1637.00	98.32	30.09.09
45	Upper Jonk	343.50 m.	350.60 m	350.60 m	6450	14.76	349.77	0.00	9.00	2890.40	60.32	3501.00	54.28	30.09.09
					132751				Med. Total :	84610	63.74	117680	88.65	30.09.09
					1616570.16				G. Total :	933660.49	57.70	1344445.98	83.06	

LATEST POSITION OF MAJOR & MEDIUM RESERVOIRS

Major Reservoirs

DL 31.10.2009

Sl. No	Name of the Reservoir	Reservoir Salient Data						PRESENT POSITION				L.S. available on same date of last year	
		D.S.L. (m)	F.R.L. (m)	M.W.L. (m)	L.S.C at F.R.L./ M.W.L. (Ham)	Reservoir Area at F.R.L. (Sq Km.)	Reservoir Level (m)	Inflow (cumec)	Outflow (cumec)	L.S. available		Quantity (Ham)	% of L.S
										Quantity (Ham)	% of L.S		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Hirakud	179.83 m.	192.02 m.	192.02 m.	482155	743.00	626.17 ft.	826.1 cumec	19379 cumec	407905.00	84.80	419870.00	87.08
		590.00 ft.	630.00 ft.	630.00 ft.									
2	Rengali	108.72 m.	123.50 m.	125.40 m.	341371	414.00	120.47	45.99	64.01	242671.00	71.09	294700.00	86.33
5	Indravati	625.00 m.	642.00 m.	643.00 m.	148550	110.00	637.58	48.27	93.39	99744.64	67.15	120988.43	81.45
4	Upper Kolab	844.00 m.	858.00 m.	858.00 m.	93560	113.50	849.67	15.27	23.68	26058.00	27.87	49454.00	52.89
3	Balimela	438.92 m.	462.06 m.	462.69 m.	267600	194.40	1487.70 ft.	89.95	38.53	87614.36	25.27	105474.10	39.41
		1440.00 ft.	1516.00 ft.	1518.00 ft.									
6	Jatapat	618.39 m.	636.20 m.	638.20 m.	96993	91.00	2735.65 ft.	15.31	48.92	64183.69	60.17	83571.17	86.16
		2655.00 ft.	2750.00 ft.	2750.00 ft.									
7	Salandi	50.24 m.	82.30 m.	83.21 m.	55050	12.29	70.86	0.00	76.44	22615.00	40.64	29762.00	53.48
					1485819.00				Maj. Total :	930791.69	62.65	1103819.70	74.29

Sl. No.	Name of the Reservoir	Reservoir Salient Data						PRESENT POSITION					L.S. available on same date of last year	
		D.S.L. (m)	F.R.L. (m)	M.W.L. (m)	L.S.C at FRL/ M/W.L. (Ham)	Reservoir Area at FRL (Sq Km.)	Reservoir Level (m)	Inflow (cumec)	Outflow (cumec)	L.S. available		Quantity (Ham)	% of L.S	% of L.S
										Quantity (Ham)	% of L.S			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	14

MEDIUM RESERVOIRS

8	Badanalla	163.70 m.	176.00 m.	176.00 m.	5714	4.30	173.63	0.00	14.00	3664.00	54.57	2310.00	34.41	
9	Baghmati Stage-I	88.50 m.	97.00 m.	97.13 m.	1388	3.36	94.96	1.22	4.90	964.36	69.48	834.40	80.12	
10	Baghmati Stage-II	108.01 m.	113.85 m.	113.85 m.	3100	8.69	112.63	0.75	8.57	2126.00	68.61	1597.86	51.54	
11	Bankabahal	289.00 m.	305.00 m.	305.00 m.	2578	7.70	303.41	0.00	3.43	1511.01	58.63	1023.35	39.70	
12	Bhanganagar	80.77 m.	96.00 m.	95.71 m.	5766	8.94	94.18	0.45	9.55	4475.99	77.63	3870.00	67.12	
13	Bhaaskol	618.44 m.	626.66 m.	626.19 m.	2778	6.42	618.55	0.00	0.14	14.85	0.53	1959.45	70.53	
14	Budhabudhani	138.07 m.	146.38 m.	146.68 m.	1616	0.72	145.29	0.00	3.12	1291.50	79.92	791.00	48.95	
15	Dadenghadi	111.56 m.	118.87 m.	121.83 m.	2407	7.59	117.36	1.25	4.05	1594.58	66.25	1749.44	72.68	
16	Daha	112.40 m.	118.80 m.	118.80 m.	2195	5.52	116.88	1.54	6.17	1385.00	63.10	1163.00	52.98	
17	Darjang	140.20 m.	149.35 m.	150.00 m.	4648	9.43	148.71	0.27	6.27	3587.17	77.18	3476.75	74.80	
18	Dhanol	82.70 m.	88.70 m.	91.74 m.	1313	8.40	87.63	3.02	6.25	922.41	70.25	575.80	43.85	
19	Dumrabahal	284.38 m.	289.56 m.	292.00 m.	1872	7.56	287.27	0.00	0.00	810.00	43.27	1002.80	53.57	
20	Ghodahada	106.68 m.	117.80 m.	117.80 m.	3052	1.50	111.88	0.00	6.33	1079.42	35.37	1306.85	42.82	
21	Gohira	226.00 m.	235.50 m.	236.35 m.	6535	10.94	229.56	0.00	9.02	1540.00	23.57	5682.00	86.95	
22	Haladia	52.50 m.	67.64 m.	68.40 m.	870	0.72	65.42	2.76	1.70	414.00	61.79	314.00	46.87	
23	Harabhang	378.00 m.	387.50 m.	387.50 m.	8625	12.15	386.05	0.00	10.00	6907.50	80.09	6334.50	73.44	

Sl. No.	Name of the Reservoir	Reservoir Salient Data						PRESENT POSITION					L.S. available on same date of last year	
		D.S.L. (m)	F.R.L. (m)	M.W.L. (m)	L.S.C at FRL/ MWL (Ham)	Reservoir Area at FRL (Sq Km.)	Reservoir Level (m)	Inflow (cumec)	Outflow (cumec)	L.S. available		Quantity (Ham)	% of L.S	
										Quantity (Ham)	% of L.S			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
24	Harithiyare	141.45 m.	147.50 m.	148.30 m.	5668	18.45	146.18	0.00	11.35	5174.55	88.18	5626.34	95.88	
25	Jambira	57.90 m.	63.00 m.	65.50 m.	1620	29.28	61.89	1.40	1.70	1024.00	63.21	1529.00	94.38	
26	Jharbandh	250.50 m.	253.70 m.	256.65 m.	1081	4.60	250.99	0.00	0.00	95.00	8.79	477.70	44.19	
27	Kalo	71.32 m.	77.70 m.	77.70 m.	2424	5.34	76.51	0.02	4.46	1769.00	72.98	1624.00	87.00	
28	Kanjhar	398.00 m.	408.50 m.	408.50 m.	3452	5.17	407.00	0.77	4.48	2760.00	79.96	2680.00	77.64	
29	Kansubahal	219.50 m.	228.00 m.	228.00 m.	2872	5.06	226.57	1.50	1.50	2166.86	75.45	2821.07	98.23	
30	Khadkel	302.50 m.	313.50 m.	313.50 m.	5622	9.60	312.30	0.64	5.27	4530.00	80.56	4347.79	77.34	
31	Kuanra	130.30 m.	136.70 m.	135.70 m.	1750	4.88	134.30	0.12	3.12	1150.00	65.71	1238.00	70.74	
32	Nesa	257.15 m.	263.00 m.	264.50 m.	658	1.70	261.52	0.06	0.50	421.03	63.95	498.06	75.65	
33	Pilasalki	533.00 m.	541.00 m.	544.00 m.	1440	5.25	540.38	0.00	0.00	1260.20	87.51	1193.50	82.88	
34	Pizamahal	234.00 m.	243.84 m.	246.88 m.	2016	3.55	241.37	0.04	0.04	1199.95	59.52	1921.55	95.31	
35	Ramsal	100.44 m.	109.73 m.	110.54 m.	7584	16.60	109.07	3.59	9.84	6669.50	87.95	6602.00	87.06	
36	Remal	107.20 m.	121.00 m.	121.00 m.	1570	1.98	117.60	0.00	2.86	1026.00	65.35	796.00	50.83	
37	Saigata	300.07 m.	306.32 m.	307.85 m.	1639	5.37	302.80	0.00	1.33	473.88	25.77	1317.90	71.66	
38	Salia	48.31 m.	56.63 m.	61.28 m.	5275	9.84	58.25	2.45	6.54	4999.69	94.78	4443.86	84.24	
39	Saratgarh	297.00 m.	307.50 m.	307.50 m.	1215	1.52	306.18	0.33	0.10	976.00	80.33	1041.00	85.68	
40	Satiguda	182.38 m.	192.63 m.	194.29 m.	6768	11.77	185.60	0.00	3.00	1046.00	15.46	5600.00	82.74	

Sl. No	Name of the Reservoir	Reservoir Salient Data						PRESENT POSITION				L.S. available on same date of last year	
		D.S.L. (m)	F.R.L. (m)	M.W.L. (m)	L.S.C at FRL/ MWL (Ham)	Reservoir Area at FRL (Sq Km.)	Reservoir Level (m)	Inflow (cumec)	Outflow (cumec)	L.S. available		L.S. available on same date of last year	
										Quantity (Ham)	% of L.S	Quantity (Ham)	% of L.S
1	2	3	4	5	6	7	8	9	10	11	12	13	14
41	Sorada	81.97 m.	92.30 m	90.83 m	4975	9.87	99.07	0.00	11.45	3155.34	63.42	2888.92	58.07
42	Sundar	301.25 m.	310.00 m	310.00 m	4440	6.98	302.90	0.00	4.06	320.00	7.21	3294.50	74.20
43	Sunei	72.00 m.	85.00 m.	85.00 m.	6911	6.82	81.57	0.00	9.00	3780.06	54.70	3317.53	48.01
44	Talasara	288.30 m.	296.30 m.	296.30 m.	1665	3.51	281.18	0.00	2.10	444.00	26.67	1102.00	66.19
45	Upper Jonek	343.50 m.	350.60 m	350.60 m	3525	14.70	346.70	0.00	1.50	1211.60	34.38	2740.67	77.76
					129826				Med. Total :	77942	60.04	91095	70.17
					1615644.79				G. Total :	1008733.54	62.44	1194914.29	73.96



ବିଧାନସଭା ସମାଚାର

**ଲେଡାପୋକ ଓ ସ୍ୱଚ୍ଛବୃତ୍ତି ଯୋଗୁଁ ଝାରସୁଗୁଡ଼ା
ଜିଲ୍ଲାରେ ୨୫୯ଟି ଗ୍ରାମରେ ଫସଲ ହାନି**

ଭୁବନେଶ୍ୱର, ତା ୨୪।୧୧ (ନି.ପ୍ର.): ସ୍ୱଚ୍ଛବୃତ୍ତି ଓ ଲେଡାପୋକ ଆକ୍ରମଣ ଯୋଗୁଁ ଝାରସୁଗୁଡ଼ା ଜିଲ୍ଲାରେ ୨୫୯ଟି ଗ୍ରାମ ଏବଂ ୧୪ଟି ପ୍ଲଟରେ ୫୦ ପ୍ରତିଶତରୁ ଅଧିକ ଶରତକାଳୀନ ଧାନ ଫସଲ କ୍ଷତିଗ୍ରସ୍ତ ହୋଇଛି ବୋଲି କୃଷିମନ୍ତ୍ରୀ ଡା. ଦାମୋଦର ରାଉତ କହିଛନ୍ତି । ବିଧାନସଭାରେ ବିଧାୟକ ନବକିଶୋର ଦାସଙ୍କ ପ୍ରଶ୍ନର ଉତ୍ତର ଦେଇ କୃଷିମନ୍ତ୍ରୀ ଡା. ରାଉତ କହିଥିଲେ ଯେ କ୍ଷତିଗ୍ରସ୍ତ ଝାରସୁଗୁଡ଼ା ଜିଲ୍ଲାରେ ଚାଷୀମାନଙ୍କ ପାଇଁ ବିପର୍ଯ୍ୟୟ ପ୍ରଶମନ ପାଣ୍ଠିରୁ ୧କୋଟି ୮୪ଲକ୍ଷ ଟଙ୍କା ରିହାତି ଭାବେ ଦେବାପାଇଁ ସରକାର ଯୋଗାଇ ଦେଇଛନ୍ତି । ପ୍ରାୟତଃ ଏକକ ଭାବେ ଗ୍ରହଣ କରି ସମସ୍ତ ଜିଲ୍ଲାକୁ ମରୁଡ଼ି ଘୋଷଣା କରିବା ପାଇଁ ସରକାରଙ୍କ କୌଣସି ପ୍ରସ୍ତାବ ନାହିଁ । ଗ୍ରାମକୁ ଏକକ ଭାବେ ଗ୍ରହଣ କରି ୫୦ପ୍ରତିଶତ ବା ତଦୁର୍ଦ୍ଧା ଫସଲ କ୍ଷତିଗ୍ରସ୍ତ ହୋଇଥିଲେ ସେହି ଗ୍ରାମର ସମସ୍ତ ଚାଷୀଙ୍କୁ ଉପାୟମାତ୍ରେକ ଭାବେ ପାଇଁ ସରକାରଙ୍କ ପ୍ରସ୍ତାବ ବିଚାରଧୀନ ରହିଛି ।

3264 villages drought-hit, govt seeks assistance

■ Statesman News Service

BHUBANESWAR, 24 NOV: The state government, which has drawn flak from all quarters for dilly dallying over the drought assessment reports today declared that 3264 villages spread across 15 districts of the state and 41 wards of nine urban local body areas are affected by drought due to scanty and erratic rainfall.

The government had delayed assessment saying it was waiting for crop harvesting season to arrive.

The government has sought as assistance of Rs 843 crore from the National Calamity Contingency Fund to mitigate the sufferings of farmers in drought affected areas.

As per norms the government will provide gratuitous relief (estimated at Rs 118 crore), cattle feed (Rs 44 crore), agriculture input subsidy (Rs 150 crore) and compensation for khariff crop (Rs 341 crore).

Besides, it has also estimated that Rs 140 crore will be required to repair and install tube wells and Rs 40 crore for restoring lift irrigation points. It is pertinent to note that farmers, particularly in western parts of the state, have taken to the streets over the last month demanding declaration of drought.

A number of distressed farmers have also committed suicide due to crop loss and debt burden.

The Statesman
November 25, 2009

Over 3000 Orissa villages declared drought affected

The Times of India
November 25, 2009



Rajaram Ghatapathy | two

Bhubaneswar: Facing risk for the unprecedented number of farmer suicides in recent months, the state government on Tuesday declared 3,064 villages in over 15 districts as drought hit. The hurried government action came without "waiting for the winter paddy crop sowing report."

The government said it has sent a report to the Union home and agriculture ministries and sought assistance of Rs 844 crore from the National Calamity Contingency Fund (NCCF). The amount includes Rs 400 crore for compensation to affected farmers in 15 drought-affected blocks.

The government said the state has also asked for Rs 118.13 crore towards grant-in-aid, Rs 44.56 crore for fodder and drinking water facilities for domestic animals, Rs 1.56 crore for agriculture input subsidy, Rs 140 crore for drinking water and digging tube wells, Rs 40 crore for renovation of all irrigation ponds of the state and Rs 9.3 crore for saving domestic animals and chickens from possible epidemic.

Closely on the heels of the monsoon failure and its adverse impact on the paddy cultivation, which is means of survival for more than 90 per cent of Orissa's population, more than 30 farmers have so far committed suicides. Farmer suicides, a new phenomenon never seen before, are widely seen as sign of the deteriorating food security in the state. The declining trend in paddy production hounded with rising prices of essential commodities and lack of alternative sources of income are said to have aggravated the problem.

The state recorded 18 lakh tons of paddy in 2008-09 as against 16.50 lakh tons in 2007-08. The state for quite sometime has been witnessing rallies and dharnas by restless farmers demanding their areas to be declared drought-affected and financial assistance provided forthwith.

Irish farmers, who had been on an indefinite dharna for nearly one and half

State to set up 91 grid sub-stations

THE TIMES OF INDIA

Bhubaneswar: The state government has planned to install 91 grid sub-stations to ensure supply of power villages in rural areas.

Of the total grid-powered grid sub-stations, work on 30 have been completed and work on another 30 grid sub-stations would start soon. Minister of state for energy, Akhila Mohapatra Nanda told the Assembly while replying to a debate on Tuesday.

The minister said the four distribution companies were also asked to take necessary steps for installation of new transmission lines and replacement of old ones wherever required.

He said at present around 250 transformers under the four distribution companies need to be replaced. Nanda also informed the House that the state government has sought Rs 5,000 crore from the 11th Finance Commission for system improvement in energy sector in Orissa.

months to highlight their plight in Jajpur district area of Sambalpur district, on Monday locked the local block office protesting against the apathetic attitude of the government to address their problems. They are also protesting against the government diverting water from reservoirs to industrial houses at the expense of agriculture. They began a second phase agitation from Tuesday and announced they would paralyse government offices in their area.

The government said it has directed all collectors to give assistance to farmers in the affected areas at the rate of Rs 2000 per hectare in case of non-irrigated and Rs 4000 per hectare for irrigated lands.

**Blocks Affected with Population
Drought 2009**

Sl	District	Block	Total Population
1.	Angul	Anugl	144616
		Banarpal	178093
		Talcher (R)	96150
		Kanihan (R)	127818
		Chendipada	147239
		Pallahara	112821
2.	Bargarh	Jharabandha	69257
		Paikamal	99983
3.	Deogarh	Tileibani	64649
		Riamal	94024
		Barkote	95155
4.	Dhenkanal	Bhuban	92407
		Kankadahada	90449
		Bhuban NAC	20134
5.	Jharsuguda	Jharsuguda	68718
		Kolabira	43988
		Kirimira	38853
		Likera	46853
		Lakhanpur	130460
		Jharsuguda NAC	75570
		Brajarajnagar NAC	76941
		Beipahad NAC	32807
6.	Kalahandi	Jaipatna	115353
		Dhamagarh	115261
		Golmunda	96652
		Kalampur	52535
7.	Kandhamal	Daringibadi	93085
8.	Koraput	Koraput	64608
		Jaipur	99389
		Baipariguda	88993
		Kundura	57597
		Boriguma	125982
		Kotpad	81020
9.	Malkangiri	Kalimela	74589
		Motu	58135

10.	Mayurbhanj	Kaptipada	126356
		Khunta	68512
		Udala	66846
		Karanjia	81369
11.	Nuapda	Nuapada	119757
		Komna	117695
		Khariar	92998
		Bhoden	71211
		Sinapali	98634
		Khariar NAC	13402
12.	Sambalpur	Redhakhol	51674
		Naktideol	56187
		Dhankonda	84141
		Rengali	77962
		Maneswar	88668
		Jujumara	77044
		Jamankira	85554
		Kuchinda	72922
		Bamara	82548
		Redhakhol NAC	13722
13.	Nawarangpur	Chandahandi	60659
		Jharigaon	115204
14.	Subarnapur	Ullunda	77625
15.	Sundargarh	Hemgiri	74885
		Lephipada	70227
		Jangarpali	59819
		Subdega	54203
		Sadar	63830
		Balisankar	73815
		Rajgangpur	89826
		Lathikata	122652
		Kuanrmunda	87314
		Lahunipada	85431
		Bonai	61899
		Gurudia	57784
		Koira	71678
		Sundargarh NAC	38402
		Rajgangpur NAC	43912
		Biramitrapur NAC	29434
		Rourkelka Municipality	224601

