Government of Odisha

MEMORANDUM

(Interim)

ON

ODISHA DROUGHT - 2015

Special Relief Commissioner

Revenue & Disaster Management Department

CONTENTS

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Chapter- I

Introduction

Odisha is a State on the eastern seaboard of India spreading over an area of 1,55,707 sq Kms. Basing on the morphological peculiarities like geological, climatic and edaphic conditions, it is broadly divided into four geographical regions, i.e. Northern Plateau, Central River Basins, Eastern Hills and Coastal Plains, besides having a considerably long coastline of 480 kms. along the Bay of Bengal. The State has a long history of recurring multiple natural disasters. While the coastal districts of the State are exposed to high floods and devastating cyclones, western districts are prone to acute droughts. A large section of the State is also vulnerable to earthquakes. In addition, the State is also affected by disasters like heat waves, fire accidents, etc. The statistics of disasters emphatically substantiate the fact that about 80% of the State is prone to one or more forms of natural disaster and in consequence drastically affects the livelihood of the people

The climate of the State is distinctly related to its geography, which is represented by tropical monsoon weather. The weather can be classified under three heads, namely, summer, monsoon and winter. By early June, the southwest monsoon announces its arrival in the State and departs by the middle of October. During this period, the State mainly receives the rainfall. It varies from 1200 mm to 1700 mm across the State. About 78% of rainfall is received between the months of June and September and the remaining 22% throughout the year. It is universally known that agriculture is the principal source of livelihood of the populace of the State and rainfall is the main source of water for agriculture. Either heavy rainfall or scanty rainfall during this period results in flood or drought and severely affects the livelihood of the people.

During past two years; 2013 & 2014, the State has encountered two very severe cyclonic storms; Phailin and Hudhud consecutively. As it usually happens, these cyclones were followed by heavy and incessant rainfall that caused high floods/ flash floods. The devastations caused by these two cyclones were beyond imagination and due to the enduring preparedness, thousands of lives and huge properties could be saved, which was applauded even at the international level. However, the people are yet to make good of the loss caused to their livelihood.

While the people are yet to recover from the shock of the above two major disasters, scanty rainfall in the current year has led to drought situation in the State.

Drought being a slow onset and crippling disaster, its effects are likely to be felt by the people for a considerable long period of time. The primary loss due to drought though is on agriculture, acute shortage of water till the Monsoon next year will bring along many associated problems including shortage of water for drinking and other uses, food shortage, malnutrition and health hazards for both human and animals, etc.

In this context, this Interim Memorandum presents a picture as on date of the drought situation in the State of Odisha, its causes and impacts, steps taken by the State Government to mitigate the situation and financial assistance required for taking up relief and rehabilitation measures.

Chapter- II

Rainfall- 2015

The erratic and deficient rainfall during the South West Monsoon -2015 is the main reason for the drought situation in the current year. The arrival of SW Monsoon which usually sets in around 10th of June was delayed for more than a week.

On average, though the State experienced surplus rainfall of 8.4 percent in the month of June, rainfall remained deficient by 9.3 percent in July, 25.1 percent in August, 4.5 percent in September and 77.9 percent in October, 2015 from the long term average rainfall. The cumulative average rainfall of the State from June to October 2015 accounts for **deficit of 16.1 percent**.

Month	**Normal**	**Rainfall in MM**	
		Actual	**Deficiency in %**
June	216.5	234.6	8.4
July	339.9	308.4	-9.3
August	356.0	266.5	-25.1
September	231.9	221.5	-4.5
October	114.7	25.3	-77.9

The State experienced prolonged dry spells during these months. The details are as follows:

Month	**Phase**	**Period of dry spell**	**Duration (No. of days)**	**Total rainfall during the spell (in mm)**
June,2015	1st Dry spell	1st June to 11th June	11	30.2
	2nd Dry spell	13th June	01	1.2
	3rd dry spell	16th June to 19th June	04	25.6

	4th dry spell	24th June to 30th June	07	32.2
		Sub-Total	**23**	**89.2**
July, 2015	1st dry spell	1st July to 8th July	08	46.4
	2nd dry spell	12th July to 15th July	04	16.1
	3rd dry spell	17th July	01	7.0
	4th dry spell	19th July to 22nd July	04	26.7
	5th dry spell	24th July & 25th July	02	13.2
	6th dry spell	29th July to 31st July	03	8.4
		Sub-Total	**22**	**117.8**
August, 2015	1st dry spell	1st August	01	7.3
	2nd dry spell	4th August to 11th August	08	20.7
	3rd dry spell	14th August to 16th August	03	17.9
	4th dry spell	18th August & 19th August	02	14.5
	5th dry spell	21st August to 25th August	05	25.8
	6th dry spell	29th August	01	9.6
		Sub-Total	**20**	**95.8**
September, 2015	1st dry spell	2nd Sept. to 13th Sept.	12	48.4
	2nd dry spell	18th Sept. & 19th Sept.	02	6.2
	3rd dry spell	22nd Sept. to 30th Sept.	09	4.2
		Sub-Total	**23**	**58.8**
October, 2015	1st dry spell	1st Oct. to 31st October	31	25.4
		Sub-Total	**31**	**25.4**
Total			**119 days**	**387.0**

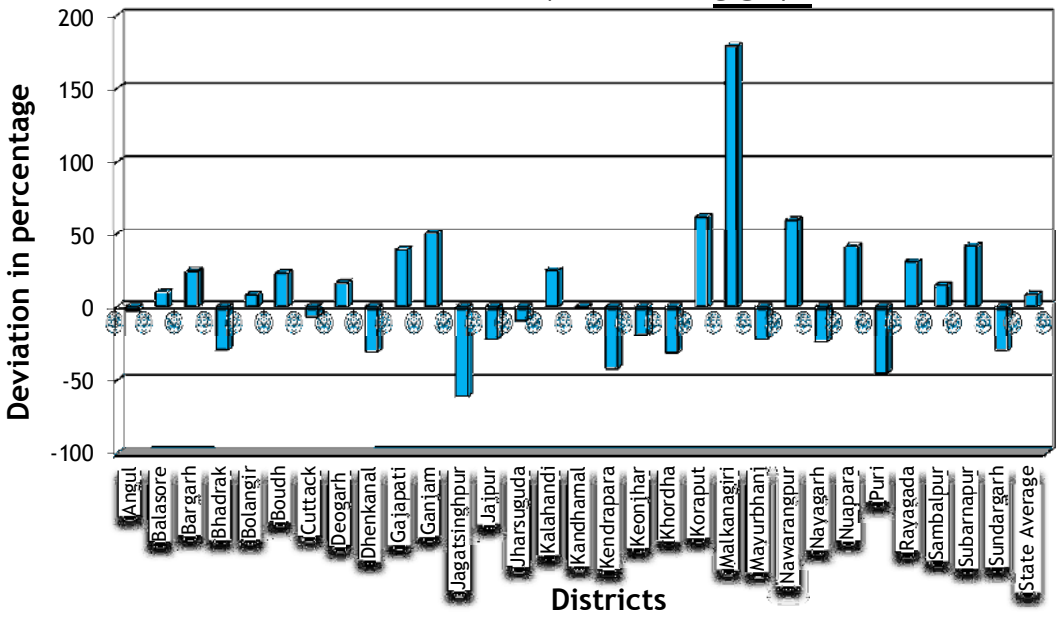
NB: No rain or rainfall of less than 10 mm in a day is taken as dry spell.

The District-wise actual and normal (long term average) rainfall with percentage of deviation during the months from June to October are given in the tables below.

June, 2015

Sl.No.	District	Rainfall (in mm)		% of Deviation
		Normal	Actual	
1	Angul	225.1	218.9	-2.8
2	Balasore	221.5	243.8	10.0
3	Bargarh	205.6	255.7	24.4
4	Bhadrak	198.2	140.6	-29.1
5	Bolangir	202.8	219.6	8.3
6	Boudh	233.8	287.8	23.1
7	Cuttack	210.0	195.8	-6.8
8	Deogarh	242.4	281.9	16.3
9	Dhenkanal	225.7	157.4	-30.3
10	Gajapati	199.7	277.6	39.0
11	Ganjam	168.3	253.6	50.7
12	Jagatsinghpur	202.3	78.9	-61.0
13	Jajpur	238.5	186.6	-21.8
14	Jharsuguda	218.8	199.1	-9.0
15	Kalahandi	240.4	300.0	24.8
16	Kandhamal	207.9	207.4	-0.3
17	Kendrapara	208.3	121.0	-41.9
18	Keonjhar	241.4	197.6	-18.2
19	Khordha	196.2	135.2	-31.1
20	Koraput	206.8	336.1	62.5
21	Malkanagiri	212.2	591.6	178.8
22	Mayurbhanj	265.8	208.0	-21.8
23	Nawarangpur	251.8	403.3	60.2
24	Nayagarh	203.5	156.1	-23.3
25	Nuapara	210.3	297.0	41.2
26	Puri	188.0	103.4	-45.0
27	Rayagada	195.3	255.4	30.8
28	Sambalpur	221.0	253.5	14.7
29	Subarnapur	217.4	308.2	41.8
30	Sundargarh	237.4	167.4	-29.5
Total			7038.3	
State Average		216.5	234.6	8.4

Fig.1.1. Rainfall Deviation of the affected Districts for the Month of JUNE 2015

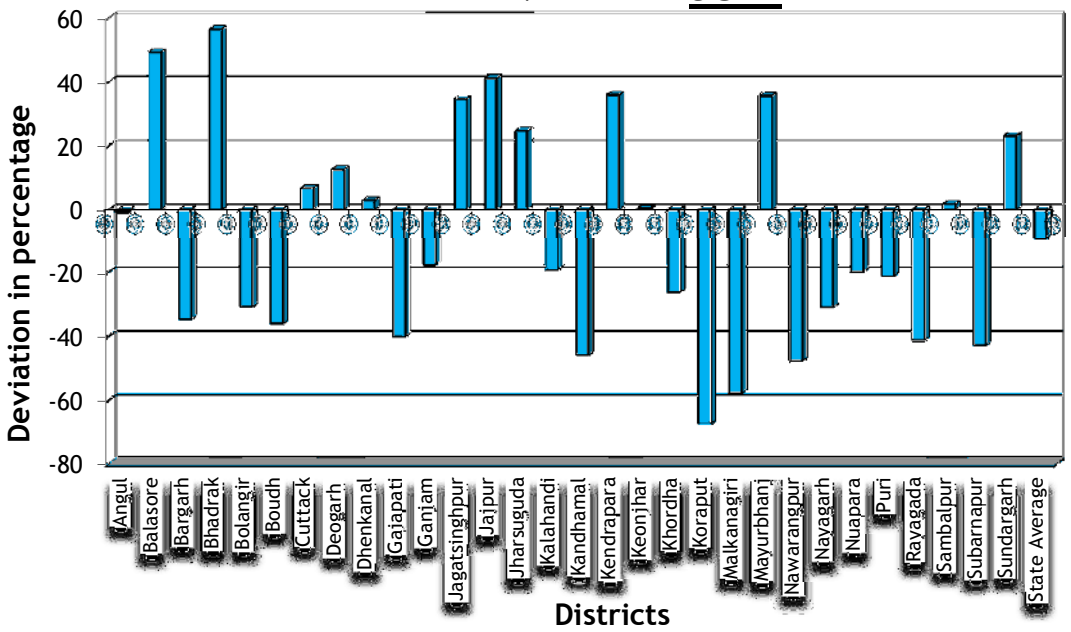


July, 2015

Sl.No.	District	Rainfall (in mm)		% of Deviation
		Normal	Actual	
1	Angul	347.7	343.3	-1.3
2	Balasore	308.6	460.7	49.3
3	Bargarh	397.2	259.6	-34.6
4	Bhadrak	293.6	459.4	56.5
5	Bolangir	360.5	249.4	-30.8
6	Boudh	418.5	267.3	-36.1
7	Cuttack	308.3	329.3	6.8
8	Deogarh	447.7	503.9	12.6
9	Dhenkanal	317.9	327.0	2.9
10	Gajapati	230.6	137.9	-40.2
11	Ganjam	220.8	182.0	-17.6
12	Jagatsinghpur	277.3	373.1	34.6
13	Jajpur	350.9	495.5	41.2
14	Jharsuguda	385.8	480.9	24.7
15	Kalahandi	327.7	264.8	-19.2
16	Kandhamal	325.1	176.0	-45.9
17	Kendrapara	317.1	431.3	36.0

18	Keonjhar	318.0	319.2	0.4
19	Khordha	304.9	225.1	-26.2
20	Koraput	375.6	122.9	-67.3
21	Malkanagiri	465.7	196.6	-57.8
22	Mayurbhanj	337.3	457.9	35.7
23	Nawarangpur	356.6	186.4	-47.7
24	Nayagarh	288.5	199.4	-30.9
25	Nuapara	347.1	278.2	-19.9
26	Puri	292.0	230.1	-21.2
27	Rayagada	259.5	152.5	-41.2
28	Sambalpur	429.5	437.2	1.8
29	Subarnapur	399.6	228.3	-42.9
30	Sundargarh	386.4	476.0	23.2
Total			**9251.1**	
State Average		**339.9**	**308.4**	**-9.3**

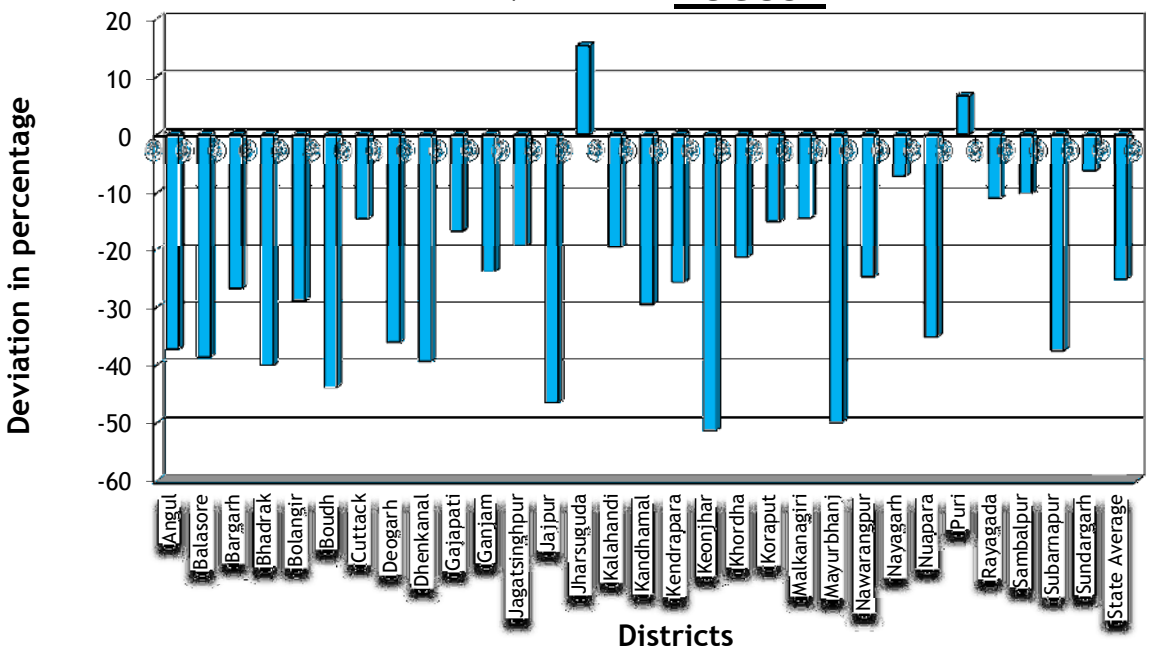
Fig.1.2. Rainfall Deviation of the affected Districts for the Month of JULY 2015



August, 2015

Sl.No.	District	Rainfall (in mm)		% of Deviation
		Normal	Actual	
1	Angul	357.5	224.6	-37.2
2	Balasore	332.1	204.0	-38.6
3	Bargarh	374.4	274.4	-26.7
4	Bhadrak	311.7	186.9	-40.0
5	Bolangir	333.6	237.6	-28.8
6	Boudh	488.8	274.5	-43.8
7	Cuttack	339.1	290.3	-14.4
8	Deogarh	443.4	283.8	-36.0
9	Dhenkanal	344.8	209.3	-39.3
10	Gajapati	253.6	211.8	-16.5
11	Ganjam	246.8	188.0	-23.8
12	Jagatsinghpur	379.1	306.8	-19.1
13	Jajpur	341.2	182.4	-46.5
14	Jharsuguda	382.9	441.9	15.4
15	Kalahandi	355.4	286.2	-19.5
16	Kandhamal	330.8	233.2	-29.5
17	Kendrapara	333.3	247.9	-25.6
18	Keonjhar	343.6	167.3	-51.3
19	Khordha	320.6	252.2	-21.3
20	Koraput	393.6	335.0	-14.9
21	Malkanagiri	472.8	405.0	-14.3
22	Mayurbhanj	359.9	181.2	-49.7
23	Nawarangpur	407.5	307.0	-24.7
24	Nayagarh	288.2	267.6	-7.1
25	Nuapara	327.8	212.9	-35.1
26	Puri	297.9	317.8	6.7
27	Rayagada	273.7	243.9	-10.9
28	Sambalpur	442.4	397.6	-10.1
29	Subarnapur	408.9	255.7	-37.5
30	Sundargarh	393.9	369.7	-6.2
Total			**7996.4**	
State Average		**356.0**	**266.5**	**-25.1**

Fig.1.3. Rainfall Deviation of the affected Districts for the Month of AUGUST 2015

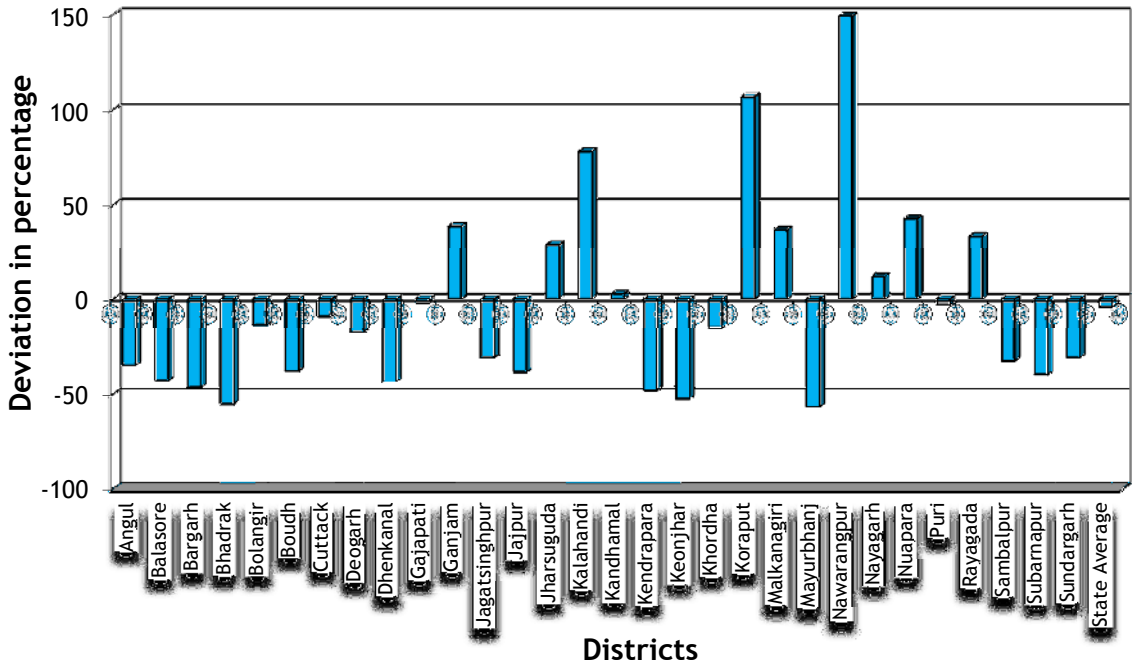


September, 2015

Sl.No.	District	Rainfall (in mm)		% of Deviation
		Normal	Actual	
1	Angul	217.5	142.2	-34.6
2	Balasore	267.6	153.2	-42.8
3	Bargarh	222.6	119.5	-46.3
4	Bhadrak	216.8	97.1	-55.2
5	Bolangir	237.4	204.7	-13.8
6	Boudh	244.8	152.6	-37.7
7	Cuttack	229.2	207.8	-9.3
8	Deogarh	228.2	188.9	-17.2
9	Dhenkanal	220.6	124.8	-43.4
10	Gajapati	237.9	233.9	-1.7
11	Ganjam	216.3	300.4	38.9
12	Jagatsinghpur	241.4	167.0	-30.8
13	Jajpur	238.0	146.6	-38.4
14	Jharsuguda	210.7	271.8	29.0
15	Kalahandi	204.6	364.5	78.1
16	Kandhamal	239.1	245.5	2.7

17	Kendrapara	237.3	123.3	-48.0
18	Keonjhar	241.1	114.3	-52.6
19	Khordha	234.5	198.9	-15.2
20	Koraput	256.3	530.1	106.8
21	Malkanagiri	281.2	384.8	36.9
22	Mayurbhanj	262.0	113.6	-56.6
23	Nawarangpur	225.6	561.9	149.1
24	Nayagarh	226.8	253.6	11.8
25	Nuapara	214.5	306.5	42.9
26	Puri	243.2	235.4	-3.2
27	Rayagada	199.1	266.2	33.7
28	Sambalpur	224.7	151.9	-32.4
29	Subarnapur	228.0	137.7	-39.6
30	Sundargarh	211.5	146.5	-30.7
Total			**6645.0**	
State Average		**231.9**	**221.5**	**-4.5**

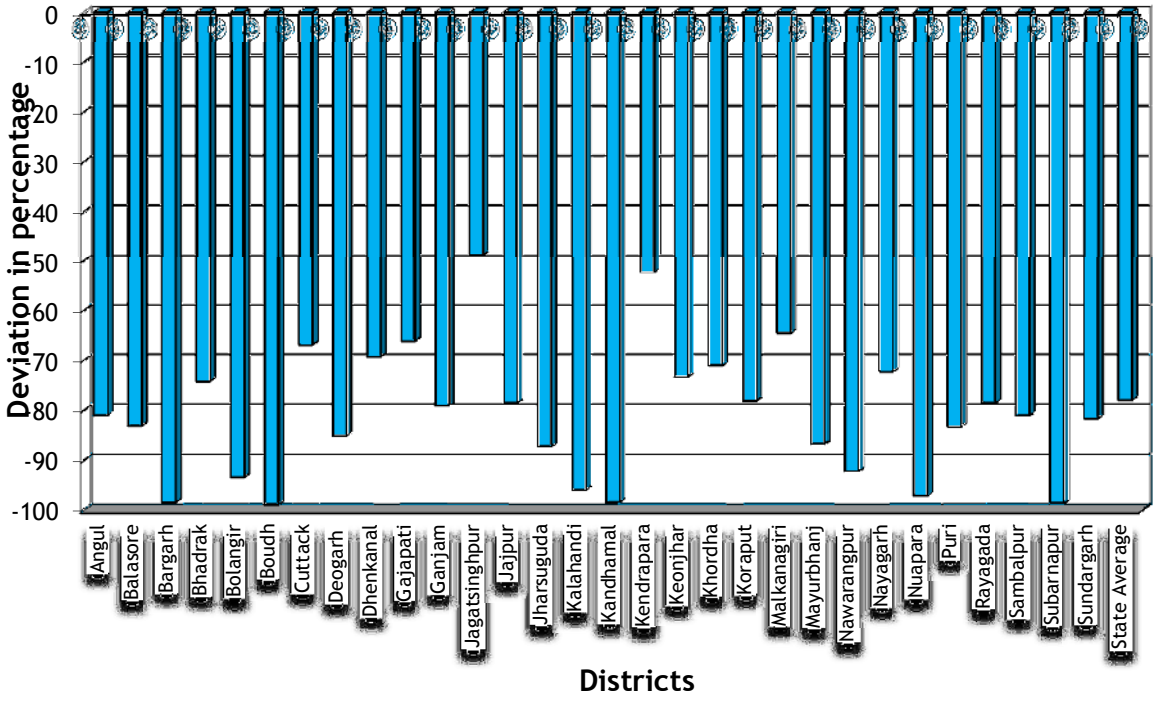
Fig.1.4. Rainfall Deviation of the affected Districts for the Month of SEPTEMBER 2015



October, 2015

Sl.No.	District	Rainfall (in mm)		% of Deviation
		Normal	Actual	
1	Angul	86.3	16.4	-81.0
2	Balasore	170.5	28.8	-83.1
3	Bargarh	52.8	0.8	-98.4
4	Bhadrak	145.3	37.6	-74.1
5	Bolangir	68.4	4.5	-93.4
6	Boudh	90.5	1.1	-98.8
7	Cuttack	125.6	41.5	-66.9
8	Deogarh	84.4	12.7	-85.0
9	Dhenkanal	104.4	32.2	-69.2
10	Gajapati	168.6	57.2	-66.1
11	Ganjam	177.7	37.2	-79.0
12	Jagatsinghpur	151.1	77.6	-48.6
13	Jajpur	140.2	30.1	-78.5
14	Jharsuguda	54.9	7.0	-87.2
15	Kalahandi	74.0	3.0	-95.9
16	Kandhamal	117.7	2.0	-98.3
17	Kendrapara	183.7	87.7	-52.3
18	Keonjhar	101.3	27.1	-73.2
19	Khordha	149.3	43.3	-71.0
20	Koraput	126.1	27.7	-78.0
21	Malkanagiri	109.5	38.8	-64.5
22	Mayurbhanj	114.1	15.1	-86.7
23	Nawarangpur	168.6	13.2	-92.2
24	Nayagarh	134.5	37.3	-72.2
25	Nuapara	68.9	2.0	-97.1
26	Puri	181.6	30.6	-83.2
27	Rayagada	109.7	23.6	-78.5
28	Sambalpur	54.7	10.4	-81.0
29	Subarnapur	59.8	0.8	-98.6
30	Sundargarh	67.7	12.5	-81.6
Total			**760.1**	
State Average		**114.7**	**25.3**	**-77.9**

Fig.1.5. Rainfall Deviation of the affected Districts for the Month of OCTOBER 2015



Block-wise Rainfall Pattern

[From 1st June to 31st October 2015]

The analysis of the cumulative rainfall in the State from 1st June to 31st October, 2015 indicates that out of 314 Blocks in the State, as many as 21 Blocks received surplus rainfall to the extent of more than 19% **(Excess)**, 138 Blocks received rainfall between 19% surplus and 19% deficit **(Normal)**, 119 Blocks received rainfall deficit between 19% and 39% **(Deficit)**, 32 Blocks received rainfall deficit between 39% and 59% **(Severe Deficit)** and 4 Blocks received rainfall deficit by more than 59% **(Scanty)** of the long-term average rainfall. Table below indicates block-wise details.

BLOCK / RAIN GAUGE STATION WISE RAINFALL 2015					
STATE - ODISHA				**Rainfall in mm**	
Sl. No.	**Name of the DISTRICT**	**Name of the Block/Station**	**CUMULATIVE [1st June 2015 to 31st October 2015]**		
			Actual	Antici. Normal	% of Dev.
21 Blocks having deviation (above 19%) - EXCESS					
1	CUTTACK	Kantapara	1623.0	1212.2	33.9
2	CUTTACK	Banki-Dampada	1572.0	1258.5	24.9
3	GANJAM	Buguda	1146.6	861.7	33.1

4	GANJAM	Sorada	1464.0	1179.1	24.2
5	GANJAM	Belaguntha	1265.0	1029.9	22.8
6	JHARSUGUDA	Laikera	1566.2	1122.4	39.5
7	JHARSUGUDA	Lakhanpur	1204.0	883.3	36.3
8	KALAHANDI	Th.Rampur	2399.0	1202.1	99.6
9	KALAHANDI	Jaipatna	1544.0	1221.0	26.5
10	KALAHANDI	Kalampur	1482.0	1202.1	23.3
11	KALAHANDI	Junagarh	1397.0	1150.7	21.4
12	KORAPUT	Kotpad	1846.4	1342.9	37.5
13	KORAPUT	Kundra	1719.1	1358.4	26.6
14	KORAPUT	Boipariguda	1687.0	1358.4	24.2
15	MALKANGIRI	Malkangiri	2033.1	1541.4	31.9
16	NAWARANGPUR	Jharigam	2128.0	1410.1	50.9
17	NAWARANGPUR	Chandahandi	2013.0	1410.1	42.8
18	NAYAGARH	Khandapara	1271.8	1011.8	25.7
19	NUAPADA	Komana	1565.0	1153.9	35.6
20	PURI	Nimapara	1436.0	1202.7	19.4
21	SUNDARGARH	Gurundia	1478.0	1219.9	21.2
138 Blocks having deviation (19% to -19%) - NORMAL					
1	ANGUL	Talcher	1139.0	1153.5	-1.3
2	ANGUL	Angul	1091.7	1116.0	-2.2
3	ANGUL	Banrapal	868.0	980.4	-11.5
4	BALASORE	Bahanaga	1259.0	1228.4	2.5
5	BALASORE	Simulia	1172.0	1216.2	-3.6
6	BALASORE	Balasore	1215.0	1314.1	-7.5
7	BALASORE	Remuna	1121.0	1300.3	-13.8
8	BALASORE	Oupada	1095.0	1300.3	-15.8
9	BALASORE	Khaira	1104.0	1314.0	-16.0
10	BARAGARH	Ambabhona	1599.0	1348.1	18.6
11	BARAGARH	Bijepur	1188.5	1152.5	3.1
12	BARAGARH	Attabira	1194.0	1252.6	-4.7
13	BHADRAK	Basudevpur	1112.0	1157.2	-3.9
14	BHADRAK	Dhamnagar	995.0	1165.6	-14.6
15	BHADRAK	Tihidi	955.0	1165.6	-18.1
16	BOLANGIR	Patnagarh	1254.8	1202.7	4.3
17	BOLANGIR	Saintala	1109.0	1110.6	-0.1
18	BOLANGIR	Gudvella	1185.0	1202.7	-1.5
19	BOLANGIR	Duduka	1053.0	1190.8	-11.6
20	BOLANGIR	Muribahal	1039.2	1250.2	-16.9
21	BOLANGIR	Titilagarh	1112.3	1365.9	-18.6
22	CUTTACK	Athagarh	1261.0	1293.2	-2.5
23	CUTTACK	Salipur	1105.0	1149.8	-3.9
24	CUTTACK	Niali	983.0	1023.5	-4.0
25	CUTTACK	Cuttack Sadar	1174.0	1226.8	-4.3
26	CUTTACK	Mahanga	1122.0	1240.6	-9.6

27	DEOGARH	Barkote	1326.0	1446.1	-8.3
28	DEOGARH	Reamal	1274.0	1446.1	-11.9
29	DEOGARH	Deogarh	1213.6	1424.5	-14.8
30	DHENKANAL	Kankadahad	1009.0	1213.4	-16.8
31	GAJAPATI	Gumma	1138.9	1114.9	2.2
32	GAJAPATI	Nuagada	1036.5	1090.4	-4.9
33	GAJAPATI	Parlakhemundi	966.5	1045.0	-7.5
34	GAJAPATI	Mohana	959.8	1064.1	-9.8
35	GANJAM	Chikiti	1130.0	1029.9	9.7
36	GANJAM	Sheragada	1125.0	1029.9	9.2
37	GANJAM	Digapahandi	1034.0	950.5	8.8
38	GANJAM	Polasara	1099.4	1029.9	6.7
39	GANJAM	Dharakote	1062.0	1029.9	3.1
40	GANJAM	Jagannathprasad	1029.0	1029.9	-0.1
41	GANJAM	Hinjili	950.0	993.7	-4.4
42	GANJAM	Kukudakhandi	984.0	1029.9	-4.5
43	GANJAM	Khalikot	978.0	1029.9	-5.0
44	GANJAM	Aska	1016.7	1086.4	-6.4
45	GANJAM	Sanakhemundi	919.0	1029.9	-10.8
46	GANJAM	Bhanjanagar	883.0	1056.7	-16.4
47	JAGATSINGHPUR	Balikuda	1280.0	1103.2	16.0
48	JAGATSINGHPUR	Biridi	1164.0	1251.2	-7.0
49	JAGATSINGHPUR	Jagatsinghpur	1236.0	1408.2	-12.2
50	JAGATSINGHPUR	Tirtol	895.0	1029.5	-13.1
51	JAGATSINGHPUR	Kujanga	1016.0	1251.2	-18.8
52	JAJPUR	Danagadi	1389.0	1308.8	6.1
53	JAJPUR	Dasarathpur	1327.0	1311.3	1.2
54	JAJPUR	Jajpur	1071.0	1272.5	-15.8
55	JHARSUGUDA	Kirmira	1479.0	1325.8	11.6
56	JHARSUGUDA	Kolarbira	1352.6	1253.1	7.9
57	JHARSUGUDA	Jharsuguda	1402.0	1412.5	-0.7
58	KALAHANDI	Koksara	1326.0	1202.1	10.3
59	KALAHANDI	Dharmagarh	1081.0	1202.1	-10.1
60	KALAHANDI	Karlamunda	1016.0	1202.1	-15.5
61	KALAHANDI	Golamunda	897.0	1074.3	-16.5
62	KALAHANDI	Narla	976.0	1202.1	-18.8
63	KANDHAMAL	Tikabali	1032.5	928.1	11.2
64	KANDHAMAL	Daringibadi	978.6	1135.4	-13.8
65	KENDRAPARA	Marshaghai	1366.0	1279.7	6.7
66	KENDRAPARA	Derabis	1106.0	1279.7	-13.6
67	KENDRAPARA	Kendrapara	1059.0	1232.9	-14.1
68	KEONJHAR	Anandapur	1121.3	1215.9	-7.8
69	KEONJHAR	Banspal	1116.5	1245.4	-10.4
70	KEONJHAR	Patna	832.9	973.2	-14.4
71	KHORDHA	Jatani	1055.0	1132.8	-6.9

72	KHORDHA	Balianta	1040.0	1131.8	-8.1
73	KORAPUT	Bandhugan	1383.0	1200.7	15.2
74	KORAPUT	Pottangi	1355.0	1316.1	3.0
75	KORAPUT	Borigumma	1385.5	1358.4	2.0
76	KORAPUT	Dasmantpur	1381.0	1358.4	1.7
77	KORAPUT	Similiguda	1138.0	1131.7	0.6
78	KORAPUT	Koraput	1413.1	1446.7	-2.3
79	KORAPUT	Nandapur	1287.5	1358.4	-5.2
80	KORAPUT	Lamataput	1214.5	1358.4	-10.6
81	KORAPUT	Jeypore	1484.4	1711.9	-13.3
82	MALKANGIRI	Mathili	1818.0	1541.4	17.9
83	MALKANGIRI	Korukonda	1731.0	1541.4	12.3
84	MALKANGIRI	Khoirput	1686.0	1541.4	9.4
85	MALKANGIRI	K.Gumma	1656.4	1541.4	7.5
86	MALKANGIRI	Kalimela	1395.0	1541.4	-9.5
87	MAYURBHANJ	Bahalda	1426.0	1348.8	5.7
88	MAYURBHANJ	Betanati	1362.0	1348.8	1.0
89	MAYURBHANJ	Kaptipada	1209.0	1348.8	-10.4
90	MAYURBHANJ	Baripada	1201.5	1360.9	-11.7
91	MAYURBHANJ	Thakurmunda	1168.0	1378.5	-15.3
92	MAYURBHANJ	Bijatala	1112.8	1348.8	-17.5
93	MAYURBHANJ	Udala	1163.4	1421.3	-18.1
94	NAWARANGPUR	Tentulikhunti	1612.0	1410.1	14.3
95	NAWARANGPUR	Nandahandi	1552.1	1410.1	10.1
96	NAWARANGPUR	Nawarangpur	1573.0	1459.9	7.7
97	NAWARANGPUR	Papadahandi	1307.0	1410.1	-7.3
98	NAWARANGPUR	Dabugan	1222.7	1360.1	-10.1
99	NAWARANGPUR	Kosagumunda	1154.0	1410.1	-18.2
100	NAYAGARH	Odagaon	1043.0	1141.5	-8.6
101	NAYAGARH	Daspalla	1104.1	1216.3	-9.2
102	NAYAGARH	Nayagarh	899.2	1086.4	-17.2
103	NAYAGARH	Bhapur	931.0	1141.5	-18.4
104	NUAPADA	Khariar	1265.1	1116.0	13.4
105	NUAPADA	Boden	866.0	1007.2	-14.0
106	PURI	Delang	1192.0	1202.7	-0.9
107	PURI	Astarang	1135.0	1202.7	-5.6
108	PURI	Puri	1011.0	1165.2	-13.2
109	PURI	Krushnaprasad	653.1	756.6	-13.7
110	PURI	Pipili	1211.9	1455.5	-16.7
111	RAYAGADA	B.Cuttack	1085.7	1061.9	2.2
112	RAYAGADA	Kashipur	1026.0	1037.3	-1.1
113	RAYAGADA	K.Singpur	1023.0	1037.3	-1.4
114	RAYAGADA	Chandrapur	998.9	1037.3	-3.7
115	RAYAGADA	Gunupur	954.0	1021.7	-6.6
116	RAYAGADA	Padmapur	949.4	1037.3	-8.5

117	RAYAGADA	Rayagada	858.8	980.9	-12.4
118	RAYAGADA	Kolnara	878.6	1037.3	-15.3
119	RAYAGADA	Muniguda	875.8	1037.3	-15.6
120	SAMBALPUR	Kochinda	1573.0	1372.3	14.6
121	SAMBALPUR	Bamra	1387.8	1263.3	9.9
122	SAMBALPUR	Jamankira	1384.9	1360.0	1.8
123	SAMBALPUR	Rairakhol	1268.0	1372.3	-7.6
124	SAMBALPUR	Naktideul	1252.3	1372.3	-8.7
125	SAMBALPUR	Jujumura	1208.0	1372.3	-12.0
126	SAMBALPUR	Dhankuda	1151.0	1403.5	-18.0
127	SUBARNAPUR	D.pali	1092.9	1313.7	-16.8
128	SUBARNAPUR	B.M.Pur	949.0	1163.0	-18.4
129	SUBARNAPUR	Sonepur	1099.0	1349.6	-18.6
130	SUNDARGARH	Tangarpali	1476.5	1296.9	13.8
131	SUNDARGARH	Bargaon	1413.2	1296.9	9.0
132	SUNDARGARH	Lephripara	1268.2	1181.7	7.3
133	SUNDARGARH	Lahunipara	1337.4	1297.3	3.1
134	SUNDARGARH	Sundargarh	1459.2	1431.6	1.9
135	SUNDARGARH	Subdega	1249.6	1296.9	-3.6
136	SUNDARGARH	Hemagiri	1346.0	1447.4	-7.0
137	SUNDARGARH	Koira	1063.0	1296.9	-18.0
138	SUNDARGARH	Kuarmunda	1062.4	1296.2	-18.0
119 Blocks having deviation (above -19% to -39%) - DEFICIT					
1	ANGUL	Kaniha	906.0	1201.9	-24.6
2	ANGUL	Chhendipada	791.7	1104.3	-28.3
3	ANGUL	Pallahara	1105.0	1543.2	-28.4
4	ANGUL	Athamallik	847.0	1293.2	-34.5
5	BALASORE	Bhogarai	1120.7	1464.1	-23.5
6	BALASORE	Baliapal	984.0	1304.4	-24.6
7	BALASORE	Jaleswar	830.0	1106.7	-25.0
8	BALASORE	Soro	1148.0	1549.7	-25.9
9	BALASORE	Nilagiri	1054.0	1441.8	-26.9
10	BALASORE	Basta	982.0	1387.4	-29.2
11	BARAGARH	Padmapur	917.0	1213.1	-24.4
12	BARAGARH	Gaisilete	926.0	1252.6	-26.1
13	BARAGARH	Bargarh	925.0	1328.9	-30.4
14	BARAGARH	Bheden	839.0	1252.6	-33.0
15	BARAGARH	Sohela	782.0	1195.4	-34.6
16	BHADRAK	Bonth	827.5	1089.9	-24.1
17	BHADRAK	Bhandaripokhari	804.0	1059.6	-24.1
18	BHADRAK	Chandbali	952.0	1358.0	-29.9
19	BHADRAK	Bhadrak	806.0	1233.0	-34.6
20	BOLANGIR	Tureikela	790.6	1014.2	-22.0
21	BOLANGIR	Bolangir	989.0	1286.2	-23.1
22	BOLANGIR	Deogaon	914.0	1202.7	-24.0

23	BOLANGIR	Puintala	881.0	1202.7	-26.7
24	BOLANGIR	Loisingha	818.0	1202.7	-32.0
25	BOUDH	Kantamal	1089.4	1476.4	-26.2
26	BOUDH	Boudh	964.9	1346.2	-28.3
27	CUTTACK	Narasinghpur	960.0	1212.3	-20.8
28	CUTTACK	Barang	957.0	1212.2	-21.1
29	CUTTACK	Tigiria	855.0	1148.6	-25.6
30	CUTTACK	Baramba	811.0	1244.2	-34.8
31	CUTTACK	Tangi-Choudwar	776.0	1254.5	-38.1
32	DHENKANAL	Kamakhyanagar	983.0	1225.2	-19.8
33	DHENKANAL	Hindol	952.0	1219.5	-21.9
34	DHENKANAL	Parjang	784.3	1007.3	-22.1
35	DHENKANAL	Dhenkanal	887.3	1295.8	-31.5
36	DHENKANAL	Bhuban	776.0	1192.0	-34.9
37	GAJAPATI	Rayagada	832.0	1090.4	-23.7
38	GAJAPATI	R.Udaygiri	902.2	1186.1	-23.9
39	GAJAPATI	Gosani	841.0	1106.3	-24.0
40	GAJAPATI	Kashinagar	670.9	1090.4	-38.5
41	GANJAM	Purusottampur	821.0	1038.5	-20.9
42	GANJAM	Chhatrapur	726.0	938.2	-22.6
43	GANJAM	Kabisuryanagar	795.0	1029.9	-22.8
44	GANJAM	Patrapur	766.0	1029.9	-25.6
45	GANJAM	Kodala	787.0	1138.7	-30.9
46	JAGATSINGHPUR	Erasama	859.0	1251.2	-31.3
47	JAGATSINGHPUR	Raghunathpur	914.0	1489.4	-38.6
48	JAJPUR	Dharmasala	1038.0	1297.9	-20.0
49	JAJPUR	Bari	1034.0	1308.8	-21.0
50	JAJPUR	Barachana	1018.0	1319.7	-22.9
51	JAJPUR	Korei	886.0	1165.7	-24.0
52	JAJPUR	Sukinda	1056.0	1434.8	-26.4
53	JAJPUR	Binjharpur	890.0	1315.5	-32.3
54	KALAHANDI	Langigarh	909.0	1202.1	-24.4
55	KALAHANDI	Bhabanipatna	920.0	1316.6	-30.1
56	KALAHANDI	Kesinga	894.0	1305.3	-31.5
57	KALAHANDI	M.Rampur	998.0	1492.0	-33.1
58	KANDHAMAL	Tumudibandh	974.6	1220.6	-20.2
59	KANDHAMAL	Raikia	849.0	1064.9	-20.3
60	KANDHAMAL	Chakapad	957.0	1220.6	-21.6
61	KANDHAMAL	Kotagarh	934.4	1220.6	-23.4
62	KANDHAMAL	Khajuripada	923.0	1222.1	-24.5
63	KANDHAMAL	Nuagan	802.0	1220.6	-34.3
64	KANDHAMAL	Phiringia	850.0	1336.3	-36.4
65	KANDHAMAL	G.Udayagiri	712.5	1167.5	-39.0
66	KENDRAPARA	Rajnagar	997.0	1279.7	-22.1
67	KENDRAPARA	Aul	944.0	1241.0	-23.9

68	KENDRAPARA	Pattamundai	958.0	1313.9	-27.1
69	KENDRAPARA	Garadapur	961.0	1318.8	-27.1
70	KENDRAPARA	Rajkanika	922.0	1291.6	-28.6
71	KENDRAPARA	Mohakalpara	788.0	1279.7	-38.4
72	KEONJHAR	Keonjhar	918.3	1171.8	-21.6
73	KEONJHAR	Ghatgaon	985.8	1315.5	-25.1
74	KEONJHAR	Hatadihi	872.0	1245.4	-30.0
75	KEONJHAR	Joda	850.5	1242.5	-31.5
76	KEONJHAR	Saharpada	776.4	1245.4	-37.7
77	KHORDHA	Khordha	1043.0	1310.3	-20.4
78	KHORDHA	Tangi	904.0	1208.7	-25.2
79	KHORDHA	Balipatna	883.0	1205.5	-26.8
80	KHORDHA	Chilika	881.0	1205.5	-26.9
81	KHORDHA	Begunia	827.0	1205.5	-31.4
82	KHORDHA	Bhubaneswar	795.0	1294.0	-38.6
83	KORAPUT	Laxmipur	981.7	1358.4	-27.7
84	MALKANGIRI	Padia	998.4	1541.4	-35.2
85	MAYURBHANJ	Tiring	1072.8	1348.8	-20.5
86	MAYURBHANJ	G.B.Nagar	1070.0	1348.8	-20.7
87	MAYURBHANJ	Rasgovindapur	1035.0	1348.8	-23.3
88	MAYURBHANJ	Khunta	1070.0	1398.5	-23.5
89	MAYURBHANJ	Rairangapur	1039.0	1371.1	-24.2
90	MAYURBHANJ	Joshipur	873.8	1206.7	-27.6
91	MAYURBHANJ	Samakhunta	975.7	1348.8	-27.7
92	MAYURBHANJ	Bangriposi	976.4	1365.8	-28.5
93	MAYURBHANJ	Karanjia	914.0	1364.3	-33.0
94	MAYURBHANJ	Jamda	899.0	1348.8	-33.3
95	MAYURBHANJ	Raruana	797.8	1216.1	-34.4
96	MAYURBHANJ	Besoi	881.0	1348.8	-34.7
97	MAYURBHANJ	KusumI	861.0	1348.8	-36.2
98	MAYURBHANJ	Kuliana	857.0	1348.8	-36.5
99	NAWARANGPUR	Raighar	1096.0	1410.1	-22.3
100	NAWARANGPUR	Umerkote	1060.1	1410.1	-24.8
101	NAYAGARH	Ranpur	885.4	1311.5	-32.5
102	NAYAGARH	Gania	702.0	1141.5	-38.5
103	NUAPADA	Sinapali	944.0	1168.6	-19.2
104	NUAPADA	Nuapara	842.6	1235.8	-31.8
105	PURI	Kakatpur	902.3	1120.0	-19.4
106	PURI	Kanas	765.2	1231.7	-37.9
107	RAYAGADA	R.Guda	823.8	1037.3	-20.6
108	RAYAGADA	Gudari	885.0	1132.6	-21.9
109	SAMBALPUR	Rengali	1019.0	1372.3	-25.7
110	SAMBALPUR	Maneswar	1011.2	1372.3	-26.3
111	SUBARNAPUR	Tarbha	1028.0	1313.7	-21.7
112	SUBARNAPUR	Ullanda	909.0	1313.7	-30.8

113	SUNDARGARH	Kutra	1042.2	1296.9	-19.6
114	SUNDARGARH	Rajgangpur	1026.2	1329.9	-22.8
115	SUNDARGARH	Balisankara	998.2	1296.9	-23.0
116	SUNDARGARH	Bisra	977.2	1327.7	-26.4
117	SUNDARGARH	Lathikata	905.0	1296.9	-30.2
118	SUNDARGARH	Bonai	1000.2	1434.6	-30.3
119	SUNDARGARH	Nuagaon	821.2	1296.9	-36.7
32 Blocks having deviation (above -39% to -59%) - SEVERE DEFICIT					
1	ANGUL	K.Nagar	814.5	1423.7	-42.8
2	BARAGARH	Paikmal	838.0	1429.7	-41.4
3	BARAGARH	Bhatali	504.0	988.5	-49.0
4	BARAGARH	Jharbandh	629.0	1252.6	-49.8
5	BARAGARH	Barpali	578.0	1252.6	-53.9
6	BOLANGIR	Belapada	676.0	1202.7	-43.8
7	BOLANGIR	Khaparakhol	571.0	1202.7	-52.5
8	BOUDH	Harabhanga	895.8	1476.4	-39.3
9	CUTTACK	Nischintakoili	643.0	1212.2	-47.0
10	DHENKANAL	Odapada	691.0	1213.4	-43.1
11	DHENKANAL	Gondia	722.0	1279.1	-43.6
12	GANJAM	Ganjam	599.7	1029.9	-41.8
13	GANJAM	Rangeilunda	568.0	1029.9	-44.8
14	JAGATSINGHPUR	Naugaon	663.0	1251.2	-47.0
15	JAJPUR	Rasulpur	703.0	1308.8	-46.3
16	KANDHAMAL	Phulbani	778.8	1292.5	-39.7
17	KEONJHAR	Telkoi	780.6	1321.5	-40.9
18	KEONJHAR	Ghasipura	712.8	1245.4	-42.8
19	KEONJHAR	Jhumpura	694.6	1245.4	-44.2
20	KEONJHAR	Champua	638.9	1519.7	-58.0
21	KHORDHA	Banapur	574.0	1169.0	-50.9
22	KHORDHA	Bolagarh	545.0	1124.8	-51.5
23	KORAPUT	Narayanpatna	650.0	1358.4	-52.1
24	MAYURBHANJ	Sarasakana	717.0	1348.8	-46.8
25	MAYURBHANJ	Sukuruli	702.5	1348.8	-47.9
26	MAYURBHANJ	Badasahi	630.0	1356.2	-53.5
27	MAYURBHANJ	Morda	753.7	1654.2	-54.4
28	MAYURBHANJ	Suliapada	601.4	1348.8	-55.4
29	NAYAGARH	Nuagaon	475.9	1141.5	-58.3
30	PURI	Brahmagiri	625.0	1202.7	-48.0
31	PURI	Satyabadi	566.2	1202.7	-52.9
32	PURI	Gop	591.0	1356.7	-56.4
4 Block shaving deviation (above -59%) - SCANTY					
1	BOLANGIR	Bangomunda	428.6	1202.7	-64.4
2	KANDHAMAL	Baliguda	575.1	1421.1	-59.5
3	KEONJHAR	H.Ch.pur	430.7	1191.8	-63.9
4	SUBARNAPUR	Binika	506.0	1384.9	-63.5

Chapter - III

Impact on Kharif Crops

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. Water requirement of paddy is also influenced to a large extent by soil moisture and temperature. Thus, the total water requirement is dependent on the stage of growth and evaporates transpiration characteristics.

As there was good rain in some parts of the State in June, the farmers broadcasted the paddy seeds in medium and low lands. Paddy seeds were also sown in nursery bed to take up transplanting operation. But the rainfall in the month of July and August was mostly not adequate to take up the agricultural operations in a smooth manner. As a result the crop coverage is less than the achievement during the corresponding period of last year. Due to deficient rainfall in the month of August and September, operations like beushaning of broadcasted paddy and weeding could not be taken up in most of the cases.

The situation was more aggravated during the month of September and October i.e. at the time of flowering and graining of the paddy. Due to severe shortage of water, proper gaining of the flowers has not occurred which lead to a severe drought situation.

Coverage of different crops during Kharif 2015

As on 30.09.2015

(Area in '000 Hect)

Crop	Variety	Normal Area (State)	Program Area (State)	Area covered Last Year (Till Date)	Area covered This Year (Till date)
Cereals	Paddy (HYV)	3254.680	3274.000	3362.421	3332.522
	Paddy (Hybrid)	28.630	76.000	75.862	84.444
	Paddy (Local)	599.260	150.000	217.404	203.765
	TOTAL Paddy	**3882.57**	**3500**	**3655.687**	**3620.731**
	Maize (HYV)	214.870	370.000	229.969	199.513
	Maize (Local)	30.180	25.000	23.822	22.231

	TOTAL Maize	**245.050**	**395.000**	**253.791**	**221.744**
	Ragi	168.150	180.000	154.503	142.803
	Jowar (HYV)	1.610	2.000	0.982	0.919
	Jowar (Local)	6.480	6.000	5.713	5.257
	TOTAL Jowar	**8.090**	**8.000**	**6.695**	**6.176**
	Bajra (HYV)	0.190	1.500	0.058	0.104
	Bajra (Local)	2.720	1.500	2.284	1.987
	TOTAL Bajra	**2.910**	**3.000**	**2.342**	**2.091**
	S.Millets	18.030	20.000	21.270	25.312
	TOTAL	4324.800	4106.000	4094.288	4018.857
Pulses	Mung	228.790	300.000	220.671	209.425
	Biri	270.590	350.000	261.202	269.043
	Cowpea	28.540	40.000	30.563	31.422
	Other Pulses	54.290	70.000	54.177	56.265
	TOTAL	**720.220**	**965.000**	**705.503**	**705.059**
Oilseeds	Groundnut	85.010	120.000	91.773	92.865
	Til	178.640	250.000	159.113	155.963
	Castor	7.960	9.000	7.001	7.206
	Niger	75.120	90.000	63.015	56.111
	Sunflower	0.410	4.000	0.319	0.271
	Soyabean	1.050	0.000	1.000	0.000
	TOTAL	**348.190**	**473.000**	**322.221**	**312.416**
Fibres	Jute	9.260	11.000	7.551	5.625
	Mesta	14.300	15.000	11.792	8.796
	Sunhemp	6.780	9.000	5.316	5.161
	Cotton	99.990	136.000	125.104	125.194
	TOTAL	**130.330**	**171.000**	**149.763**	**144.776**
Vegetables	Sweet Potato	33.960	40.000	26.809	25.128
	Other Vegetables	253.550	310.740	646.011	650.707
	TOTAL	**287.510**	**350.740**	**672.820**	**675.835**
Spices	Chillies	34.260	50.000	54.582	54.444
	Turmeric	27.250	30.000	28.331	29.210
	Ginger	17.010	20.000	20.693	21.255
	TOTAL	**78.520**	**100.000**	**103.606**	**104.909**
	GROSS TOTAL	**5889.570**	**6165.740**	**6048.201**	**5961.852**

Drought Monitoring

Crop Weather Watch Group (CWWG)

A committee of Crop Weather Watch Group was constituted under the Chairmanship of Principal Secretary, Agriculture Department with the following members which monitored the progress of Kharif 2015 crops on weekly basis.

i) Principal Secretary to Govt., Water Resources Department
ii) Principal Secretary to Govt. Co-operation Department
iii) Special Relief Commissioner, Odisha
iv) Commissioner- cum- Director of Agriculture & Food Production
v) Director of Horticulture
vi) Addl. Secretary to Govt. Agriculture Department (Nodal Officer)
vii) Director of Economics &Statistics
viii) Director, India Meteorological Centre, Bhubaneswar
ix) Professor, Agro Meteorology, Odisha University of Agriculture and Technology
x) Managing Director, OSSC Ltd.
xi) Managing Director, OAIC Ltd.
xii) Agriculturist, Agriculture Department

Regular review was also taken up at different levels including that of Chief Secretary and Hon'ble Chief Minister. The Revenue Divisional Commissioners and the Collectors monitored the situation within their respective Revenue Divisions and Districts respectively.

Provisions in the Odisha Relief Code and Government Guidelines for Crop Loss Assessment and Declaration of Drought

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

As per Paragraph 28 of Odisha 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.

Paragraph 29(a) of the Odisha Relief Code provides that ordinarily 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 the Board of Revenue / Special Relief Commissioner.

Paragraph 29(b) of this Code, however, provides that Government may in special circumstances before compilation of such report by the field officer declare certain areas as drought affected after considering the monthly situation reports, the special report submitted by the Collector together with the views of the Revenue Divisional Commissioners and the Board of Revenue / Special Relief Commissioner and such other materials as are available with Government.

The State Government have also issued suitable instructions and guidelines for conducting crop loss assessment especially in view of the Revised Items & Norms of assistance from State Disaster Response Fund and National Disaster Response fund for the period 2015-2020.

Drought Declaration

In pursuance of the provision contained in Paragraph 29(b) of the Odisha Relief Code, all the District of the State were asked to submit the crop loss assessment report basing on eye estimation. Based on the reports received from different Collectors in 1st phase, the State Government have declared 139 Blocks of 21 Districts as drought affected where the farmers have sustained crop loss of 33% and above for Autumn/Kharif Paddy during Kharif 2015. The list of the affected Blocks is as follows.

LIST OF BLOCKS NOTIFIED AS DROUGHT AFFECTED DURING KHARIF -2015 IN 1ST PHASE				
Sl. No.	**Name of the District**	**Sl. No.**	**Dist wise Sl. No.**	**Name of the Block**
1	**Angul**	**1**	**1**	Athamallik
2	**Balasore**	**2**	1	Jaleswar
		3	2	Bhograi
		4	3	Nilagiri
3	**Bargarh**	**5**	1	Bargarh
		6	2	Barpali

		7	3	Bhatli
		8	4	Attabira
		9	5	Ambabhona
		10	6	Sohela
		11	7	Bijepur
		12	8	Gaisilet
		13	9	Padmapur
		14	10	Paikmal
		15	11	Jharbandh
4	**Balangir**	**16**	1	Bolangir
		17	2	Deogan
		18	3	Guduvella
		19	4	Puintala
		20	5	Loisingha
		21	6	Agalpur
		22	7	Patnagarh
		23	8	Belpada
		24	9	Khaprakhol
		25	10	Titilagarh
		26	11	Saintala
		27	12	Muribahal
		28	13	Bangomunda
		29	14	Tureikela
5	**Boudh**	**30**	1	Boudh
		31	2	Harabhanga
		32	3	Kantamal
6	**Cuttack**	**33**	1	Tangi-Choudwar
		34	2	Tigiria
		35	3	Badamba
		36	4	Narasinghpur
		37	5	Banki
7	**Jajpur**	**38**	1	Binjharpur
		39	2	Dangadi
		40	3	Korei
8	**Kalahandi**	**41**	1	Kalahandi
		42	2	M.Rampur
		43	3	Narla

		44	4	Karlamunda
		45	5	Lanjigarh
		46	6	Jaipatana
		47	7	Koksara
		48	8	Kesinga
		49	9	Dharamgarh
		50	10	Golamunda
		51	11	Junagarh
		52	12	Kalampur
9	**Kandhamal**	**53**	1	Khajuripada
		54	2	Phiringia
		55	3	Phulbani
		56	4	Balliguda
		57	5	Kotagad
		58	6	Tumudibandha
		59	7	Chakapad
		60	8	G. Udayagiri
		61	9	Tikabali
10	**Keonjhar**	**62**	1	Saharapada
		63	2	Keonjhar
		64	3	Banspal
		65	4	Telkoi
		66	5	Ghatagaon
		67	6	Patnagarh
		68	7	Champua
		69	8	Jhumpura
		70	9	Joda
11	**Khordha**	**71**	1	Begunia
		72	2	Bolagarh
		73	3	Banpur
12	**Koraput**	**74**	1	Borigumma
		75	2	Kotpad
13	**Mayurbhanj**	**76**	1	Morada
		77	2	Rasagovindpur
		78	3	Suliapada
		79	4	Bangriposi
		80	5	Baripada

		81	6	Bijatala
		82	7	Rairangpur
		83	8	Jamda
		84	9	Bahalda
		85	10	Tiring
		86	11	Joshipur
		87	12	Karanjia
		88	13	Thakurmunda
		89	14	Sukruli
		90	15	Raruan
		91	16	Samakhunta
		92	17	Badasahi
14	**Nabarangpur**	**93**	1	Nabarangpur
		94	2	Nandahandi
		95	3	Tentulikhunti
		96	4	Papadahandi
		97	5	Kosagumuda
		98	6	Dabugaon
		99	7	Umerkote
		100	8	Raighar
		101	9	Jharigaon
		102	10	Chandahandi
15	**Nayagarh**	**103**	1	Bhapur
		104	2	Daspalla
		105	3	Gania
		106	4	Khandapada
		107	5	Nayagarh
		108	6	Nuagaon
		109	7	Odagaon
		110	8	Ranpur
16	**Nuapada**	**111**	1	Nuapada
		112	2	Komna
		113	3	Boden
		114	4	Khariar
		115	5	Sinapali
17	**Puri**	**116**	1	Krushnaprasad
		117	2	Kanas

18	**Rayagada**	**118**	1	K. Singpur
		119	2	B. Cuttack
		120	3	Muniguda
		121	4	Chandrapur
19	**Sambalpur**	**122**	1	Dhankuda
		123	2	Rengali
		124	3	Jujumura
		125	4	Maneswar
		126	5	Bamra
		127	6	Jamankira
		128	7	Kuchinda
		129	8	Rairakhol
		130	9	Naktideul
20	**Subarnapur**	**131**	1	Sonepur
		132	2	Tarbha
		133	3	Biramaharajpur
		134	4	Ullunda
21	**Sundargarh**	**135**	1	Sundargarh
		136	2	Lathiketa
		137	3	Kuarmunda
		138	4	Nuagaon
		139	5	Bisra

In the 2nd phase, Collectors of six districts have reported crop loss of more than 33% in the following 34 Blocks.

LIST OF BLOCKS TO BE NOTIFIED AS DROUGHT AFFECTED DURING KHARIF - 2015 IN 2ND PHASE				
Sl. No.	**Name of the District**	**Sl. No.**	**Dist wise Sl. No.**	**Name of the Block**
1	**Angul**	**1**	1	Sadar
		2	2	Banarpal
		3	3	Chendipada
		4	4	Talcher

		5	5	Kania
		6	6	Palahara
		7	7	Kishorenagar
2	**Jharsugda**	**8**	1	Jharsuguda
		9	2	Kolabira
		10	3	Kirmira
		11	4	Laikera
		12	5	Lakhanpur
3	**Gajapati**	**13**	1	Kashinagar
		14	2	Gosani
		15	3	Guma
		16	4	Rayagada
		17	5	Nuagada
		18	6	R. Udayagiri
		19	7	Mohana
4	**Ganjam**	**20**	1	Chhatrapur
		21	2	Ganjam NAC
		22	3	Buguda NAC
		23	4	Aska
		24	5	Chikiti
		25	6	Jagannathprasad
		26	7	Patrapur
5	**Dhenkanal**	**27**	1	Gundia
		28	2	Kamakshyanagar
		29	3	Odapada
		30	4	Bhuban
		31	5	Hindol
		32	6	Parjang
		33	7	Sadar
6	**Cuttack**	**34**	1	Athagarh

Thus, cumulatively 173 Blocks in 25 districts have been affected by the current drought during Kharif 2015.

The crop cutting experiment for Kharif 2015 in the State is in progress. After this scientific crop loss assessment is over, the final position on drought will emerge on the basis of which the State Government will submit a final / additional Memorandum, if required.

The information on the extent of damage in the Format as per Appendix-II is given below.

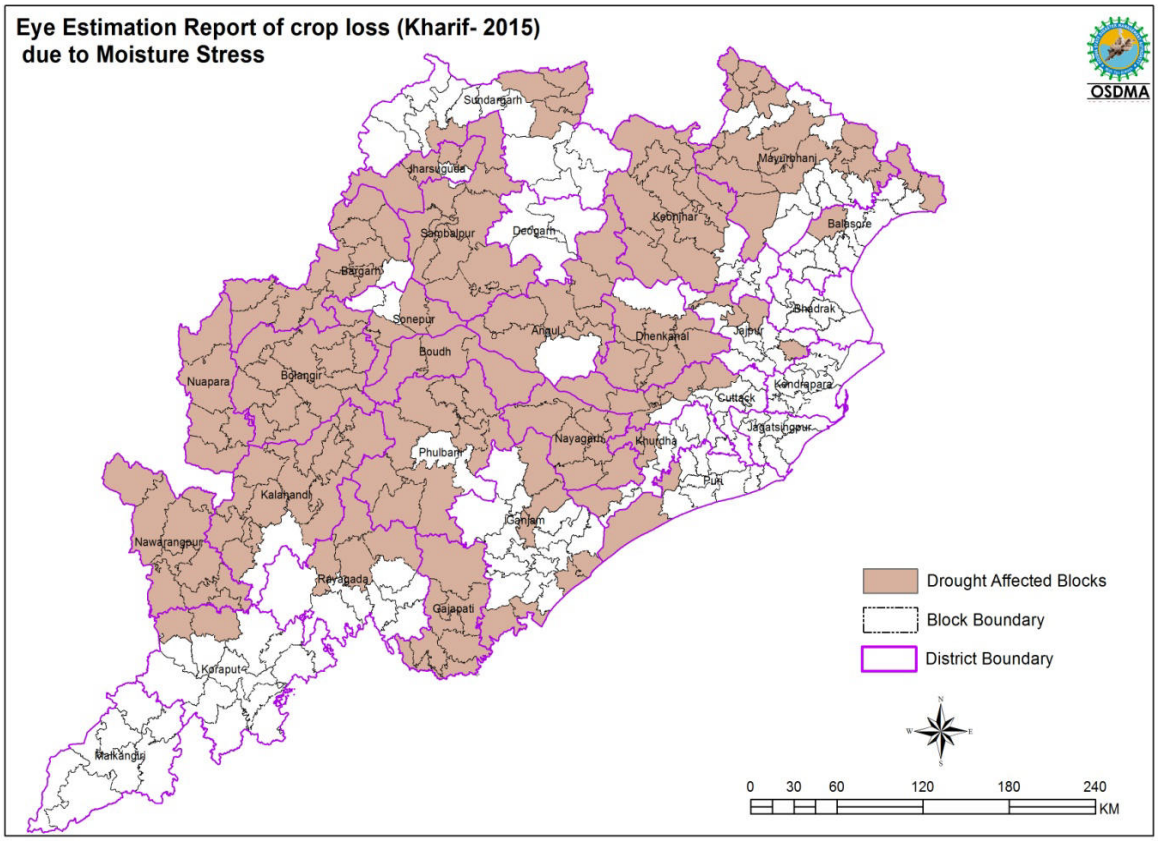
Format as per Appendix-II

Extent of Damage due to Drought 2015
State: Odisha

Sl.	Item	Details
1	Total number of Districts in the State	30
2	No. and Names of the Districts affected	25 (Angul, Balasore, Bargarh, Bolangir, Boudh, Cuttack, Dhenkanal, Gajapati, Ganjam, Jajpur, Jharsuguda, Kalahandi, Kandhamal, Keonjhar, Khordha, Koraput, Mayurbhanj, Nabarangpur, Nayagarh, Nuapada, Puri, Rayagada, Sambalpur, Subarnapur and Sundargarh)
3	Number of Villages affected	20484
4	Population affected	1.51 crore
5	Total land area affected (in lakh ha)	882720
6	Crop Area affected (in lakh ha.)	
	(i) Total cropped area affected	882720
	(ii) Estimated loss to crops (Rs. in lakh)	
	(iii) Area where crop damage was more than 33%	631494
7	Percentage of area held by SMF	
	(i) In the State as a whole	70%

	(ii) In the affected Districts	70.64%
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.	

Affected District map



Chapter- IV

Mitigation measures taken by the State Government

In response to the severe drought situation, the State Government have announced a comprehensive package for mitigation of the drought situation.

- Agriculture input subsidy will be provided to the small and marginal farmers who have sustained crop loss of 33 and above @ Rs.6,800/- per hectare of land in rain-fed (non-irrigated) areas and Rs.13,500/- per hectare of land in areas under assured irrigation. Agriculture input subsidy will also be provided to farmer other than small and marginal farmers at the same rates subject to a ceiling of two hectare per framer. For perennial crops the assistance shall be provided @ Rs.18000/- per hectare. The assistance shall be provided to the Actual Cultivators.
- Farmers affected by drought in Kharif will be provided fresh finance for Rabi cultivation during the current Rabi season which has commenced from 1st of October this year. This could be to the tune of 4500 crores.
- Short term Kharif loans will be converted to medium term loans in drought affected areas in cases of 50% and above crop damage. The rate of interest of short term loans will be applicable for converted medium term loans. This shall be done through interest subvention of 227.38 crores over a period of 3 years for bringing down the interest rate to 5% for the crop loans availed by the farmers.
- 50% remission in respect of cess on land revenue will be given to farmers where the crop loss is 33% or more. Collection of the remaining amount will be deferred to the next financial year without levying any interest.
- Tuition fees and examination fees in Government and aided Schools and Colleges in drought affected areas shall be waived.
- 40,000 pump sets shall be provided through Odisha Agro-Industries Corporation with 50% subsidy limited to Rs.15,000/- to the framers with priority to the rainfed areas. Besides, availability of pump sets in different Agro

Service Centres shall be published to enable the farmers to hire the same to save their standing crops.

- Odisha Lift Irrigation Corporation shall take immediate steps to repair the defunct LI Points. Energy Department shall energize the LI Points immediately. Necessary arrangement shall be made for providing diesel generator sets with submersible pump sets to the newly installed deep bore wells where supply of electricity is not possible at present. The district level committee constituted to revive defunct LI Points should start the work immediately and complete the same by 31st December.
- Steps should be taken to energize deep bore wells of 13,000 farmers.
- 4 Lakh pulse mini kits, 1 lakh oilseed mini kits and 5 lakh vegetable mini kits will be supplied to the farmers for the Rabi Programme
- MGNREGA works will be taken up by the Panchayati Raj Department to establish water harvesting structures/de-silting of field channels, diversion weirs, etc. State Government will provide 50 days of additional work over and above the 150 days announced by the Government of India in drought affected areas. Further, as a pro-poor and pro-labour measure, an additional 30% of wages shall be paid to the labourers engaged in MGNREGS in drought affected districts as Drought Allowance.
- Further, development of private lands of the affected farmers can be taken up as a component under MGNREGS as an additional relief measures.
- Food assistance @ 1 kg per adult and 500 gram per child shall be provided to people in dire need of immediate sustenance, as assessed by the Collectors
- Government of India will be requested to provide interest incentive@ 3% for MCT loans i.e. at par with crop loans for prompt paying farmers which will help the farmers in making repayment at 5% rate of interest.
- In non-irrigated areas experiencing moisture stress, where there is no standing crop at present, immediate assessment of damage is to be undertaken. Disbursement of payment of Agriculture Input Subsidy must start by 10th November, 2015 in these areas. Collectors can engage experienced retired field level officials for such assessment and disbursement.
- Collectors will immediately form teams comprising of field level officials of Revenue, Agriculture, Cooperation and Water Resources Departments, which

will conduct sensitization and counselling camps at Panchayat level in areas experiencing moisture stress.

- Recovery of all crop loans extended by Cooperative Societies in the affected Blocks as per the eye estimation survey report is deferred with immediate effect. Re-phasing of the recovery schedule of such crop loans shall be made as per announcement made in Drought Package-2015 declared by the Government on 15.10.2015. The Commercial Banks have been requested to take similar steps in respect of crop loans of farmers of the affected areas. ACS, Finance should monitor it on a regular basis.
- Panchayati Raj Department will take steps to create large water tanks through MGNREGA in every affected Gram Panchayats, wherever feasible.
- Earlier the Government had announced availability of additional 50 days of work under MGNREGS over and above the limit of 150 days stipulated by the Union Government in drought affected areas.

The concerned Departments of the Government and the Collectors of the affected Districts have been instructed to implement the package announced by the Government to assist the affected farmers.

Chapter- V

Visit of the Central Team

Ministry of Agriculture and Farmer welfare, Govt. of India had constituted a central Team vide OM No.34-57/2015–DM dated September 22, 2015 for assessment of drought situation and to suggest remedial measures and strategies for combating agrarian and rural distress in eight districts of Odisha.

The Central Team led by Dr. D P Malik, Additional Commissioner (Crops) and Director, Central Rice Research Institute, Cuttack visited eight (8) districts of Odisha namely Dhenkanal, Khordha, Balangir, Boudh, Bargarh, Subranapur, Kandhamal & Keonjhar of Odisha from 6th to 8th October, 2015.

The Teams interacted with farmers and districts officials of Department of Agriculture and other stakeholders during the visit.

Field observations of Central Team

- Total kharif area in all eight districts covered in current year 14.60 lakh ha. Out of total kharif area, paddy area is 9.45 lakh ha. and about 2.60 lakh ha. under paddy is affected due to moisture stress.
- Paddy is severely affected due to moisture stress in all districts except Dhenkanal. The maximum area under paddy was affected in the Bolangir district (83095 ha.) and minimum in Dhenkanal (291ha).
- The percentage of total paddy area affected due to long dry spell in the range of 5.41 to 45.67 %. The area affected in term of percentage to total paddy area is highest in Balangir (45.67%) and minimum in Dhenkanal (0.03%).
- The paddy sown in the upland area (sowing in the last week June and fist week of July) is badly affected due to moisture stress condition in the month of August and September.
- Paddy in the low land is transplanted very late i.e upto mid of September and old seeding (30-50 days old) were used. The late transplanting. Old seedling and moisture stress hampered the growth of the crop.
- The paddy is the major crop grown in kharif season and share maximum area of total kharif area in all districts except Khandhamal.

- Paddy is mainly cultivated by direct seed (broadcasting and seed drill) and transplanting. The sowing of direct seeded rice is done in upland conditions from Mid June of Mid July depending on the rainfall. The transplanting of paddy is done in month of August.
- The area under direct seeded rice is almost same as in the year 2014 (normal year) due to excess rainfall in the month of June. However, long dry spell in month of August and September has severely affected paddy. The beaushaning (tillage operation practices in direct seeded rice for weed management, plant establishment, maintain of plants population) could not be taken up timely due to prolonged dry spell and resulted in weed infestation and ultimately resulted into yield loss and resulted into weed infestation and ultimately resulted into yield loss. The crop loss in upland condition is more than 80%. In some areas, farmers are not able to recover seed quantity from the harvest of crop.
- The area under line sowing (transplanted paddy) is also covered as per target. However, the transplanting of paddy was done late i.e. after first shower in fast week of September. The late transplanting and use of old seedlings (30-50 days old) and subsequent poor rains resulted into stunted growth and infestation of weeds. The medium duration varieties stunted growth stage / grain filling stage but there is total discoloration and grain sterility due to moisture stress. The crop loss in transplanted paddy in rain fed conditions is more than 50%. However, there is no severity of incidence of insect- pests and diseases in paddy crop.
- Farmers are not able to harvest better yield of crops in areas in normal year due to use of nutrients and low adoption of farm mechanization.

Steps have been taken by the concerned Departments to comply with the observations of the Central Team.

Chapter- VI

Assistance required from Government of India

1. Agriculture Assistance:

Agriculture input subsidy –

Agriculture input subsidy will be provided to the affected farmers having landholding upto 2 ha., who have sustained crop loss of 33% and above, @ Rs.6,800 per hectare of land in rainfed/ non-irrigated areas and Rs.13,500 per hectare of land in areas under assured irrigation. Agriculture input subsidy will also be provided to other farmers at the same rates subject to a ceiling of two hectares per farmer. As per initial assessment, 6.31 lakh ha. of crop area has sustained crop loss to the extent of 33% and above. An amount of Rs.416.274 crore is required to be paid as agriculture input subsidy to the affected farmers, the details of which are given under in Format as per **Appendix-III and IV.**

Since the above assessment has been done taking into account the loss of yield of mostly the autumn paddy and the crop cutting assessment is still going on, the requirement of funds for providing input subsidy to the affected farmers is likely to increase**.**

Format as per appendix-III

Calculation of assistance for agricultural Input subsidy- SMF

Sl. No.	Name of affected District	Total Agricultural Area affected [in Hect.]	Total Agricultural Area where croploss is > 33% [in Hect.]	out of (4) area belong to SMF				Assistance sought for different categories of crops				Total assistance sought (in Rs)
				Rainfed	Irrigated	Perennial	Sericulture	Rainfed @Rs.6800/- per hectare	Irrigated @ Rs.13500/- per hectare	Perennial @Rs.18000/- per hectare	Sericulture	
1	2	3	4	5A	5B	5C	5D	6A	6B	6C	6D	7 (6A+6B+ 6C+6D)
1	Angul	35820	31906	26032	0	0	0	177017600	0	0	0	**177017600**
2	Balasore	7640	4071	3542	0	0	0	24085600	0	0	0	**24085600**
3	Bargarh	71602	67689	38584	0	0	0	262371200	0	0	0	**262371200**
4	Bolangir	125301	74523	52169	0	0	0	354749200	0	0	0	**354749200**
5	Boudh	17450	9150	5856	0	0	0	39820800	0	0	0	**39820800**
6	Cuttack	28356	25143	20240	0	0	0	137632000	0	0	0	**137632000**
7	Dhenkanal	4613	3511	2836	0	0	0	19284800	0	0	0	**19284800**
8	Gajapati	9529	4511	632	3879			4297600	52366500	0	0	**56664100**
9	Ganjam	13312	10715	6746	2083	0	0	45872800	28120500	0	0	**73993300**
10	Jajpur	32713	8253	6025	0	0	0	40970000	0	0	0	**40970000**
11	Jharsuguda	31221	29473	26918	357	0	0	183042400	4819500	0	0	**187861900**

12	Kalahandi	71047	71047	39788	0	0	0	270558400	0	0	0	**270558400**
13	Kandhamal	11639	7418	6214	0	0	0	42255200	0	0	0	**42255200**
14	Keonjhar	36859	35667	28890	0	0	0	196452000	0	0	0	**196452000**
15	Khordha	16187	4667	3501	0	0	0	23806800	0	0	0	**23806800**
16	Koraput	421	421	240	0	0	0	1632000	0	0	0	**1632000**
17	Mayurbhanj	36878	36878	28765	0	0	0	195602000	0	0	0	**195602000**
18	Nabarangpur	53341	29155	18952	0	0	0	128873600	0	0	0	**128873600**
19	Nayagarh	130652	60266	48816	0	0	0	331948800	0	0	0	**331948800**
20	Nuapada	33865	33865	23027	0	0	0	156583600	0	0	0	**156583600**
21	Puri	3964	3955	3203	0	0	0	21780400	0	0	0	**21780400**
22	Rayagada	5530	1274	777	0	0	0	5283600	0	0	0	**5283600**
23	Sambalpur	36905	27228	14430	0	0	0	98124000	0	0	0	**98124000**
24	Subarnapur	34357	17190	10486	0	0	0	71304800	0	0	0	**71304800**
25	Sundargarh	33518	33518	23128	0	0	0	157270400	0	0	0	**157270400**
	TOTAL	**882720**	**631494**	**439797**	**6319**	**0**	**0**	**2990619600**	**85306500**	**0**	**0**	**2898908500**

Format as per appendix-IV

Agricultural Input Subsidy - farmers other than SMF

Sl. No.	Name of affected District	Total agricultural area where crop loss is >33% (in ha.)	Out of (3) area belonging to farmers other than SMF				No. of farmers other than SMF affected by the instant calamity (only)			
			Rainfed	Irrigated	Perennial	Sericulture	Rainfed	Irrigated	Perennial	Sericulture
1	2	3	4A	4B	4C	4D	5A	5B	5C	5D
1	Angul	31906	5874	0	0	0	2963	0	0	0
2	Balasore	4071	529	0	0	0	288	0	0	0
3	Bargarh	67689	29105	0	0	0	14613	0	0	0
4	Bolangir	74523	22354	0	0	0	11223	0	0	0
5	Boudh	9150	3294	0	0	0	1682	0	0	0
6	Cuttack	25143	4903	0	0	0	2478	0	0	0
7	Dhenkanal	3511	675	0	0	0	351	0	0	0
8	Gajapati	4511	0	0	0	0	0	0	0	0
9	Ganjam	10715	1552	334	0	0	813	182	0	0
10	Jajpur	8253	2228	0	0	0	1178	0	0	0
11	Jharsuguda	29473	2045	153	0	0	1892	92	0	0
12	Kalahandi	71047	31259	0	0	0	15692	0	0	0
13	Kandhamal	7418	1204	0	0	0	627	0	0	0
14	Keonjhar	35667	6777	0	0	0	3402	0	0	0
15	Khordha	4667	1166	0	0	0	603	0	0	0
16	Koraput	421	181	0	0	0	97	0	0	0
17	Mayurbhanj	36878	8113	0	0	0	4096	0	0	0

18	Nawaranghpur	29155	10203	0	0	0	5113	0	0	0
19	Nayagarh	60266	11450	0	0	0	5745	0	0	0
20	Nuapada	33865	10838	0	0	0	5456	0	0	0
21	Puri	3955	752	0	0	0	381	0	0	0
22	Rayagada	1274	497	0	0	0	262	0	0	0
23	Sambalpur	27228	12798	0	0	0	6412	0	0	0
24	Subarnapur	17190	6704	0	0	0	3371	0	0	0
25	Sundargarh	33518	10390	0	0	0	5211	0	0	0
	TOTAL	**631494**	**184891**	**487**	**0**	**0**	**93949**	**274**	**0**	**0**

Contd..

Sl. No.	Name of affected District	No. of farmers other than SMF affected by successive calamities				Assistance sought for different categories of crops								Total assistance sought (in Rs.)
		Rain-fed	Irrig-ated	Pere-nnial	Seri-culture	Affected first time				Affected for successive calamities				
						Rainfed @Rs.6800/- per hectare	Irrigated @ Rs.13500/- per hectare	Perennial @ Rs.18000/- per hectare	Sericulture	Rainfed @ Rs.6800/- per hectare	Irrigated @ Rs.13500/- per hectare	Perennial @ Rs.18000/- per hectare	Sericulture	
1	2	6A	6B	6C	6D	7A	7B	7C	7D	8A	8B	8C	8D	9 (7A + B + C+D) + (8A+B+C+D)
1	Angul	0	0		0	39943200	0	0	0	0	0	0	0	**39943200**
2	Balasore	0	0	0	0	3597200	0	0	0	0	0	0	0	**3597200**
3	Bargarh	0	0	0	0	197914000	0	0	0	0	0	0	0	**197914000**
4	Bolangir	0	0	0	0	152007200	0	0	0	0	0	0	0	**152007200**
5	Boudh	0	0	0	0	22399200	0	0	0	0	0	0	0	**22399200**

6	Cuttack	0	0	0	0	33340400	0	0	0	0	0	0	0	**33340400**
7	Dhenkanal	0	0	0	0	4590000	0	0	0	0	0	0	0	**4590000**
8	Gajapati	0	0	0	0	0	0	0	0	0	0	0	0	**0**
9	Ganjam	0	0	0	0	10553600	4509000	0	0	0	0	0	0	**15062600**
10	Jajpur	0	0	0	0	15150400	0	0	0	0	0	0	0	**15150400**
11	Jharsuguda	0	0	0	0	13906000	2065500	0	0	0	0	0	0	**15971500**
12	Kalahandi	0	0	0	0	212561200	0	0	0	0	0	0	0	**212561200**
13	Kandhamal	0	0	0	0	8187200	0	0	0	0	0	0	0	**8187200**
14	Keonjhar	0	0	0	0	46083600	0	0	0	0	0	0	0	**46083600**
15	Khordha	0	0	0	0	7928800	0	0	0	0	0	0	0	**7928800**
16	Koraput	0	0	0	0	1230800	0	0	0	0	0	0	0	**1230800**
17	Mayurbhanj	0	0	0	0	55168400	0	0	0	0	0	0	0	**55168400**
18	Nabarangpur	0	0	0	0	69380400	0	0	0	0	0	0	0	**69380400**
19	Nayagarh	0	0	0	0	77860000	0	0	0	0	0	0	0	**77860000**
20	Nuapada	0	0	0	0	73698400	0	0	0	0	0	0	0	**73698400**
21	Puri	0	0	0	0	5113600	0	0	0	0	0	0	0	**5113600**
22	Rayagada	0	0	0	0	3379600	0	0	0	0	0	0	0	**3379600**
23	Sambalpur	0	0	0	0	87026400	0	0	0	0	0	0	0	**87026400**
24	Subarnapur	0	0	0	0	45587200	0	0	0	0	0	0	0	**45587200**
25	Sundargarh	0	0	0	0	70652000	0	0	0	0	0	0	0	**70652000**
	TOTAL	**0**	**0**	**0**	**0**	**1257258800**	**6574500**	**0**	**0**	**0**	**0**	**0**	**0**	**1263833300**

2. Re-phasing of crop loan and interest subvention on MTC loans.

An amount of Rs.912.66 crore is required on account of re-phasing of crop loan and interest subvention on MTC loans for drought 2015 as follows.

(Rs. In crore)

Sl.	Particulars	Requirement of funds
1.	Conversion of crop loans advanced during Kharif, 2015	
	i) Share of Government towards conversion of crop loans advanced during Kharif, 2015 in the affected areas.	375.00
	ii) Interest subvention on the MTC loans	362.34
2.	Interest incentive @3% on the Medium Term (Conversion) loans to bring the effective interest rate for the prompt paying farmers at par with the crop loans i.e. @1% p.a.	175.32
	TOTAL	912.66

The above requirement of Rs.912.66 crore may be met out of NDRF or out of the eligible head of concerned Ministry.

3. Restoration of Minor Irrigation Projects:

(a) Restoration of Minor Irrigation Projects (Lift) -

As many as 3228 no. of Community Lift Irrigation Projects owned by Pani Panchayats need immediate repair for Rabi 2015-16 programme for which an amount of Rs.52.48 crore is required. The district wise requirement is as follows

District wise L.I. Projects to be revived Departmentally by OLIC for Rabi Crop Season 2015-16

Sl. No.	Name of the District	Name of the Division	Nos	Area in Hect	Amount in lakhs
1	**2**	**3**	**4**	**5**	**6**
1	Rayagada	Gunupur	25	512	57.260
2	Koraput	Koraput	23	460	127.480
3	Malakangiri	Koraput	16	320	89.370
4	Nabarangpur	Nabarangpur	25	500	175.000
5	Kalahandi	Bhawanipatna	25	500	41.960
6	Nuapada	Nuapada	25	500	121.030
7	Balangir	Balangir	53	1108	149.730
8	Subarnapur	Subarnapur	25	708	109.800
9	Balasore	Balasore	25	608	126.150
	Balasore	Jaleswar	25	500	169.750
10	Bhadrak	Bhadrak	36	758	224.950
11	Mayurbhanja	Baripada	20	312	134.450
	Mayurbhanja	Karanjia	12	300	67.500
12	Puri	Bhubaneswar	38	952	177.840
13	Khurdha	Bhubaneswar	25	487	64.640
14	Nayagarh	Bhubaneswar	25	516	159.870
15	Cuttack	Cuttack	25	696	75.210
16	Jagatsinghpur	Cuttack	25	516	53.770
17	Kendrapara	Kendrapara	25	488	125.750
18	Jajpur	Jajpur Road	25	642	175.000
19	Gajapati	Berhampur	9	120	57.400
20	Ganjam	Berhampur	94	1704	119.910
21	Kandhamal	Phulbani	25	500	119.160
22	Boudh	Phulbani	25	500	165.950
23	Dhenkanal	Dhenkanal	26	520	148.200
24	Angul	Dhenkanal	25	5000	148.610
25	Keonjhar	Keonjhar	25	424	61.350
26	Sambalpur	Sambalpur	26	676	63.840
27	Deogarh	Sambalpur	15	248	24.350
28	Jharsuguda	Sambalpur	25	560	117.182
29	Bargarh	Bargarh	25	640	156.380
30	Sundargarh	Sundargarh	25	524	171.060
TOTAL			**868**	**22799**	**3779.902**

District Wise requirement of Funds for minor repair of Lift Irrigation Projects with Pani Panchayat for Operation in Rabi year-2015-16

Sl No	Division	District	Nos of Energised Projects	Nos of L.I Projects Handed over to P.Ps	Nos of L.I Projects Requires Minor Repair for operationa-lisation of Inoperable defunct Projects out of Col-5	Designed Ayacut Area in Ha	Amount Required for Minor Repair in Lakhs
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	Bhubaneswar	Khordha	427	337	77	1540	26.55
2		Nayagarh	477	451	89	1780	27.80
3		Puri	846	715	95	1900	29.56
4	Cuttaack	Cuttack	1118	830	82	1640	122.00
5		Jagatsinghpur	654	403	22	440	23.35
6	Kendrapara	Kendrapara	1641	1274	36	720	32.90
7	Jajpur Rd.	Jajpur	1571	985	68	1360	40.80
8	Bhadrak	Bhadrak	1000	766	44	880	19.80
9	Balasore	Balasore	1372	908	62	1240	36.95
10	Jaleswar	Balasore	926	707	142	2840	58.95
11	Baripada	Mayurbhanja	967	908	105	2100	38.11
12	Karanjia	Mayurbhanja	283	191	39	780	23.20
13	Keonjhar	Keonjhar	869	422	49	980	25.80
14	Baragarh	Baragarh	686	634	59	1180	28.28
15	Sambalpur	Sambalpur	419	419	132	2640	79.20
16		Jharsuguda	137	137	37	740	20.35
17		Deogarh	124	124	21	420	13.80
18	Sundargarh	Sundargarh	677	581	172	3440	137.60
19	Bhawanipatna	Kalahandi	997	859	54	1080	51.00
20	Nuapada	Nuapada	478	440	88	1760	47.90
21	Subernapur	Subernapur	815	802	19	380	7.00
22	Bolangir	Bolangir	906	892	229	4580	103.00
23	Nabarangapur	Nabarangapur	830	779	110	2200	85.00

24	Koraput	Koraput	1001	910	26	520	32.50
25		Malkanagiri	232	224	0	0	0.00
26	Phulbani	Kandhamal	424	359	93	1860	41.75
27		Boudh	490	484	65	1300	30.45
28	Berhmpur	Ganjam	1526	1246	88	1760	100.29
29		Gajapati	326	229	3	60	1.30
30	Dhenkanal	Dhenkanal	723	595	46	920	32.00
31		Anugul	578	487	28	560	18.00
32	Gunupur	Raygarh	937	678	180	3600	133.61
	G.TOTAL		**24457**	**19776**	**2360**	47200	**1468.80**

4. Animal Resources Sector

a) Provision of Fodder

Due to severe drought situation, the availability of green fodder in the pasture will be seriously hampered. It is anticipated that the pasture will hardly meet 25% of the total requirement. Unless provision of fodder is made, the cattle population will suffer immensely due to food scarcity. About 2.00 lakh cattle population have been affected due to current drought.. The approximate requirement of fund for supply of balanced cattle feed for a period of 90 days will be **Rs.72.00 crore** @ Rs.70 per day per big cattle and Rs. 35 per day per small cattle**.**

(b) Strengthening of fodder resources

Besides, an additional **Rs.9 crore** will be required for strengthening / creating fodder resources for three months**.** The details are as follows-

Sl.	**Name of Activities / Component**	**Requirement of funds in crore**
1.	Provision for Azolla Pits	6.00
2.	Enrichment of crop residue	3.00
	TOTAL	**9.00**

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5. Gratuitous Relief (Food Assistance)

About two-third of the agricultural land in the State are rainfed in which single crop is grown in the whole year depending on Monsoon rain. Most of the farmers solely depend on the crops grown during kharif season. The current drought has wiped out the entire capital yield of the farmers resulting in loss of food reserve. In order to ensure food security for the affected population, affected population of about 4.02 lakh will require gratuitous relief. An amount of **Rs.200.327 crore** is required to provide gratuitous relief to the said vulnerable population for a period of 90 days.

Requirement of funds for Gratuitous Relief (Food Assistance)

Sl. No.	Name of affected District	No. of persons required to be provided gratuitous relief			Amount required as per norms of SDRF (in Rs.)		
1	2	Adult	child	total	Adults @ Rs.60/- per day for 90 days	Children @ Rs.45/- per day for 90 days	Total
1	Angul	12856	8500	21356	69422400	34425000	103847400
2	Balasore	1655	703	2358	8937000	2847150	11784150
3	Bargarh	22365	9184	31549	120771000	37195200	157966200
4	Bolangir	18659	13799	32458	100758600	55885950	156644550
5	Boudh	4986	2335	7321	26924400	9456750	36381150
6	Cuttack	13256	6009	19265	71582400	24336450	95918850
7	Dhenkanal	4758	2698	7456	25693200	10926900	36620100
8	Gajapati	7895	3537	11432	42633000	14324850	56957850
9	Ganjam	15603	3017	18620	84256200	12218850	96475050
10	Jajpur	3065	1193	4258	16551000	4831650	21382650
11	Jharsuguda	7958	3487	11445	42973200	14122350	57095550
12	Kalahandi	26255	9368	35623	141777000	37940400	179717400
13	Kandhamal	3987	1660	5647	21529800	6723000	28252800
14	Keonjhar	15694	5793	21487	84747600	23461650	108209250
15	Khordha	4135	2586	6721	22329000	10473300	32802300
16	Koraput	658	266	924	3553200	1077300	4630500
17	Mayurbhanj	19268	9279	28547	104047200	37579950	141627150

18	Nawaranghpur	13156	6399	19555	71042400	25915950	96958350
19	Nayagarh	24598	9970	34568	132829200	40378500	173207700
20	Nuapada	16594	7934	24528	89607600	32132700	121740300
21	Puri	1943	902	2845	10492200	3653100	14145300
22	Rayagada	653	244	897	3526200	988200	4514400
23	Sambalpur	12539	5905	18444	67710600	23915250	91625850
24	Subarnapur	7758	3931	11689	41893200	15920550	57813750
25	Sundargarh	16259	7197	23456	87798600	29147850	116946450
	TOTAL	**276553**	**125896**	**402449**	**1493386200**	**509878800**	**2003265000**

6. Drinking Water

Although at present drinking water supply situation is not alarming, it is likely to detoriate if no rainfall is received in near future. However following contingent plan has been prepared to tackle the situation.

ii) In order to overcome the likely water scarcity situation in rural areas, where the surface water is normally deficient, water has to be transported by tankers.

iii) The tube wells which have become defunct either because they have outlifted their utility or ground water is not accessible. Apart from that, a number of new habitations have also come up. In order to provide the minimum required tub wells in replacement of the defunct ones and to cover the new habitations, new bore wells will be immediately required. \

iv) Where tube wells have the problem of depletion of water level, extension of riser pipes will be required.

v) There may be requirements of generator sets and other supporting facilities for maintaining rural water supply project.

It is estimated that Rs.24.78 crore will be required for this purpose.

Chapter-VII

Status of State Disaster Response Fund

State Disaster Response Fund (2015-16)

The State Disaster Response Fund has been constituted with the sharing of Central and State Government as per the recommendations of the 14th Finance Commission. The corpus of the State Disaster Response Fund pertaining to the State of Odisha for the year 2015-16 is Rs.747.00 crore. The details of which are given below.

State share	:	Rs.186.75 crore
Central Share	:	Rs.560.25 crore
Total	**:**	**Rs.747.00 crore**

Out of above Rs.373.50 crore was received towards 1st instalment of Central and State share. Besides Rs.23.418 crore was available in the SDRF account as opening balance as on 01.04.2015. As such total funds available in the SDRF account as on 20.11.15 was Rs.396.918 crore. In the meantime, expenditure to the tune of Rs.440.96 crore has been incurred for different disaster response measures. Thus the balance in the SDRF has come to (-) Rs.44.042 crore. Besides, taking into account the 25% of the 1st installment of the corpus of the year 2015-16 to be reserved for Capacity Building activities (5%), Procurement of Search and Rescue Equipments (10%) and State Specific Calamities (10%, net balance in the SDRF corpus comes to (-) Rs.110.533 crore. The details are given below under Format-IX.

Format-IX

Status of Expenditure from SDRF Account

Year-2015-16

(As on 20.11.2015)

[Rs. in crore]

State-Odisha

1	Opening Balance	23.418
2	SDRF releases during the year 2015-16 (Central & State Share)	
	# 1st Instalment of current year [State + Central Share]	373.50
	# 2nd Instalment of current year, if any [State + Central Share]	-
	# Advance Contribution for 2015-16 [State + Central Share]	-
3	NDRF releases during the year 2015-16, if any	-
4	**Total funds available in SDRF Account (1+2+3)**	**396.918**
5	Expenditure incurred on calamities	
	# Avalanches	-
	# Cyclone	169.981
	# Cloud Burst	-
	# Flood	125.199
	# Earthquake/Tsunami	-
	# Fire	4.118
	# Hailstorm	1.212
	# Landslides	0.356
	# State's notified Other Calamities	9.909
	Sub-Total	**310.775**
6	Expenditure incurred on capacity building activities during 2015-16	0.00
7	Expenditure incurred up to 10% on procurement of search and rescue equipments etc. during 2015-16	16.975

8	Expenditure incurred on instant Drought	113.21
9	Total expenditure incurred on all calamities (5+6+7+8)	440.96
10	**Balance available in SDRF Account (4 - 9)**	**(-) 44.042**
11	**Amount reserved for** State's notified Other Calamities, capacity building activities, procurement of search and rescue equipments**	**66.491**
12	**Net Balance**	**(-)110.533**

** *As per the norms of expenditure for State Disaster Response Fund (SDRF), 25% of the corpus for a year will be reserved for Capacity Building activities (5%), Procurement of Search and Rescue Equipments (10%) and State Specific Calamities (10%). Hence, 25% of the 1st installment of the corpus of the year 2015-16 is Rs.93.375 crore. Out of this an amount of Rs.26.885 crore has been spent for the purpose till 20.11.2015. As there will be expenditure during the balance period of the year for the above items Rs.66.491 crore is reserved out of the 1st installment of the corpus*.

It is here to be pointed out that, during the year 2014-15 an amount of Rs.216.17 crore has been spent out of the State's own resources towards different Relief necessitates on account of Phailin & subsequent Flood-2013 in anticipation of sanction in favour of the State out of NDRF. But till date the claims of the State Government for Rs.399.83 crore has not been sanctioned out of NDRF by Government of India. If the above expenditure of Rs.206.17 crore will be adjusted out of SDRF-2015 the balance of SDRF as on 20.11.2015 will be (-) Rs.326.703 crore.

ABSTRACT OF REQUIREMENT OF FUNDS FROM GOVERNMENT OF INDIA

Sl.	Sector	Purpose	Amount
			(Rs. in Crore)
1	Agriculture	Agriculture input subsidy	416.274
2	Cooperation	Conversion of crop loans advanced during Kharif-2015	912.66
3	Water Resources	Revival of minor irrigation projects (Lift & Flow)	52.49
4	Animal Resources	Provision of Fodder/feed concentrate including water supply and medicines in cattle camps	72.00
		Strengthening of fodder resources	9.00
5	Food Assistance	Gratuitous Relief	200.357
6	Water Supply	Emergency Drinking Water Supply	24.78
Grand Total			1687.561

Chapter - VIII

Conclusion

Due to deficient and uneven rainfall during Kharif-2015, severe drought situation has been experienced over large parts of State. The disaster in its fold is likely to bring an array of associated hazards which needs to be tackled without loss of time. Considering these facts, the need for Central assistance to take up different mitigation measures in the drought affected areas deserves priority and focused attention.

The Government of Odisha in this report is seeking an interim assistance of **Rs.1687.561 crore** from Govt. of India to provide relief to the people and take mitigation measures.

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