

F. No. 3-1/ 2016-17-CFCC-E&S
GOVERNMENT OF INDIA
MINISTRY OF AGRICULTURE AND FARMERS WELFARE
DEPARTMENT OF AGRICULTURE, COOPERATION AND FARMERS WELFARE
(CROP FORECAST COORDINATION CENTRE)

Room No. 344-A, Krishi Bhawan, New Delhi

Dated: 17.11.2016

**SUBJECT: MINUTES OF THE MEETING OF THE CROP WEATHER WATCH GROUP HELD ON
11.11.2016.**

Summary observations of the Group on Agenda Items

- *Interior Karnataka, Tamil Nadu, some parts of Assam, Telangana, Coastal Andhra Pradesh, Kerala and isolated pockets of Arunachal Pradesh, Kutch and North Interior Karnataka.*
- *Normal to near normal over rest of the country.*

Minimum Temperature

- *Above normal by 2 to 4^oC over Nagaland, Manipur, some parts of Mizoram, Assam and isolated pockets of Tamil Nadu.*
- *Normal to near normal over rest of the country except Konkan & Goa, many parts of Gujarat Region, Madhya Maharashtra, Marathwada, Vidarbha, Karnataka, some parts of West Madhya Pradesh, Telangana, Rayalaseema and isolated pockets of East Uttar Pradesh, Gangetic West Bengal, East Rajasthan, East Madhya Pradesh, Saurashtra and Coastal Andhra Pradesh, where it was below normal by 2 to 6^oC.*
- *In the post monsoon season, at All-India level, the rainfall during the week (03rd – 09th November, 2016) has been 45% lower than the Long Period Average (LPA). Rainfall in the four broad geographical divisions of the country during the above period has been higher than LPA by 138% in East & North East India but lower than LPA by 100% in North West India, 77% in South Peninsula and 68% in Central India.*
- *The **cumulative rainfall** in the country during the post monsoon season i.e. 01st October to 09th November, 2016 has been 35% lower than the Long Period Average (LPA). Rainfall in the four broad geographical divisions of the country during the above period has been higher than LPA by 6% in Central India but lower than LPA by 66% in South Peninsula, 56% in North West India and 14% in East & North East India .*
- *Out of 36 met sub-divisions, 16 met sub-divisions constituting 48% of the total area of the country has received excess/normal rainfall, 20 met sub-divisions constituting 52% of the total area of the country has received deficient/scanty rainfall.*

- *Central Water Commission monitors 91 major reservoirs in the country which have total live capacity of 157.80 Billion Cubic Meter (BCM) at Full Reservoir Level (FRL). Out of these, 76 reservoirs with FRL capacity of 116.25 BCM have irrigation potential. Live storage in the 91 major reservoirs as on 10th November, 2016 has been 110.10 BCM as against 85.27 BCM on 10.11.2015 (last year) and 112.30 BCM of normal (average of the last 10 years) storage. Current year's storage is 129% of last year's storage and 98% of the average of last 10 year's storage.*
- *As per latest information available on sowing of crops, around 24% of the normal area under Rabi crops has been sown upto 11.11.2016. Total area sown under Rabi crops in the country as on 11.11.2016 has been reported to be 146.85 lakh hectares as compared to 126.71 lakh hectares in the corresponding period of last year. This year's area coverage so far is higher by 15.9 lakh ha. than the last year.*
- *Availability position of seeds and fertilizers has been found satisfactory.*

1. Post Monsoon Season (October–December) during the week ending on 09th November, 2016

➤ Sub-division-wise weekly rainfall forecast & weather warning is shown in Table-1.1

- **Rainfall during the week (03rd November, 2016 to 09th November, 2016)** Rainfall was excess/normal in 04, deficient/scanty in 10 and no rain in 22 out of 36 meteorological sub-divisions.
- **Cumulative rainfall (01st October, 2016 to 09th November, 2016)** Rainfall was excess/normal in 16 and deficient/scanty in 20 out of 36 meteorological sub-divisions.

Table - 1.2: Weekly and Cumulative Rainfall in four regions of the country¹

Region	Week Ending (09.11.2016)				Cumulative (01.10.16 to 09.11.16)			
	(in mm)		Devi- ation (%)	Cat.	(in mm)		Devi- ation (%)	Cate- gory
	Actual	Normal			Actual	Normal		
North-West India	0.0	3.0	-100	NR	14.9	34.2	-56	D
Central India	1.5	4.6	-68	S	68.2	64.3	6	N
South Peninsular India	6.4	28.2	-77	S	65.8	192.4	-66	S
East & North-East India	21.4	9.0	138	E	122.4	142.7	-14	N
Country as a whole	5.2	9.4	-45	D	60.0	92.9	-35	D

E: Excess, N: Normal, D: Deficient, S: Scanty, NR: No Rain.

Source: India Meteorological Department, New Delhi

Table - 1.3: Category wise comparative distribution of Sub-division (cumulative rainfall) and All-India Percentage Rainfall Departure for the last five years since: 1st October to

No. of Sub-Divisions with rainfall	<i>For the period from 1st October to</i>					
	09 NOV 2011	07 NOV 2012	06 NOV 2013	12 NOV 2014	11 NOV 2015	09 NOV 2016
Excess	01	04	21	03	03	06
Normal	05	13	05	08	07	10
Total	06	17	26	11	10	16
Deficient	06	07	10	11	08	07
Scanty	22	12	00	14	18	13
No rain	02	00	00	00	00	00
Total	30	19	10	25	26	20
Data Inadequate	00	00	00	00	00	00
TOTAL	36	36	36	36	36	36
All-India % Rainfall Deviation	(-) 49%	(-) 8%	49%	(-) 32%	(-) 35%	(-) 35%

Source: IMD

➤ Sub-division-wise 5 days rainfall forecast from 15th Nov., 2016 to 19th Nov., 2016 is shown in Table 1.4

1. North-West India - Uttar Pradesh, Rajasthan, Haryana, Chandigarh and Delhi, Punjab, Uttaranchal, Himachal Pradesh, and Jammu and Kashmir.
Central India - Madhya Pradesh, Chhattisgarh, Maharashtra and Gujarat

South Peninsula - Andhra Pradesh, Karnataka, Tamil Nadu & Pondicherry, Kerala and Lakshadweep.

North-East India - Bihar, Jharkhand, Orissa, West Bengal, Sikkim, Assam, Arunachal Pradesh, Meghalaya, Nagaland, Manipur, Mizoram, Tripura, and Andaman and Nicobar Islands.

Table: 1.1

METEOROLOGICAL SUB-DIVISIONWISE DAILY DISTRIBUTION OF RAINFALL & MINIMUM TEMPERATURE-2016																
S.No.	SUB-DIVISIONS	RAINFALL							MINIMUM TEMPERATURE							
		03 NOV	04 NOV	05 NOV	06 NOV	07 NOV	08 NOV	09 NOV	03 NOV	04 NOV	05 NOV	06 NOV	07 NOV	08 NOV	09 NOV	
1	ANDAMAN & NICOBAR ISLANDS	FWS	WS	WS	WS	FWS	SCT	WS	N	N	N	N	N	N	N	
2	ARUNACHAL PRADESH	DRY	ISOL	DRY	SCT	FWS	SCT	ISOL	AN	AN	N	N	N	N	N	
3	ASSAM & MEGHALAYA	ISOL	ISOL	ISOL	FWS	FWS	SCT	ISOL	AN	AN	N	N	AN	N	N	
4	NAGA.MANI.MIZO.TRIPURA	ISOL	FWS	FWS	WS	WS	FWS	ISOL	AN	AN	N	N	AN	N	N	
5	SUB-HIMA.WEST BEN. & SIKKIM	DRY	DRY	DRY	DRY	DRY	DRY	DRY	AN	AN	N	N	N	N	N	
6	GANGETIC WEST BENGAL	DRY	SCT	SCT	SCT	DRY	DRY	DRY	AN	AN	N	N	N	ABN	BN	
7	ODISHA	ISOL	SCT	SCT	ISOL	ISOL	DRY	DRY	AN	AN	N	N	N	ABN	ABN	
8	JHARKHAND	DRY	DRY	DRY	DRY	DRY	DRY	DRY	AN	AN	N	N	N	N	N	
9	BIHAR	DRY	DRY	DRY	DRY	DRY	DRY	DRY	N	N	AN	N	N	N	N	
10	EAST UTTAR PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY	N	N	N	N	N	N	N	
11	WEST UTTAR PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY	N	N	N	N	N	N	N	
12	UTTARAKHAND	DRY	DRY	DRY	DRY	DRY	DRY	DRY	N	N	N	N	N	N	N	
13	HARYANA CHAND. & DELHI	DRY	DRY	DRY	DRY	DRY	DRY	DRY	N	N	N	N	N	N	N	
14	PUNJAB	DRY	DRY	DRY	DRY	DRY	DRY	DRY	N	N	N	N	N	N	N	
15	HIMACHAL PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY	N	N	N	N	N	N	N	
16	JAMMU & KASHMIR	DRY	DRY	DRY	DRY	DRY	DRY	DRY	N	N	N	N	N	N	N	
17	WEST RAJASTHAN	DRY	DRY	DRY	DRY	DRY	DRY	DRY	N	N	N	N	AN	N	N	
18	EAST RAJASTHAN	DRY	DRY	DRY	DRY	DRY	DRY	DRY	N	N	N	N	N	N	N	
19	WEST MADHYA PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY	N	N	N	N	N	N	N	
20	EAST MADHYA PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY	N	N	N	N	N	N	N	
21	GUJARAT REGION D.D. & N.H.	DRY	DRY	DRY	DRY	DRY	DRY	DRY	N	N	N	N	N	N	N	
22	SAURASTRA KUTCH & DIU	DRY	DRY	DRY	DRY	DRY	DRY	DRY	BN	BN	N	N	BN	N	N	
23	KONKAN & GOA	DRY	DRY	DRY	DRY	DRY	DRY	DRY	BN	BN	N	ABN	N	ABN	ABN	
24	MADHYA MAHARASHTRA	DRY	DRY	DRY	DRY	DRY	DRY	DRY	BN	BN	N	BN	BN	N	ABN	
25	MARATHAWADA	DRY	DRY	DRY	DRY	DRY	DRY	DRY	N	N	N	N	BN	N	N	
26	VIDARBHA	DRY	DRY	DRY	DRY	DRY	DRY	DRY	BN	BN	N	BN	N	N	N	
27	CHHATTISGARH	DRY	DRY	DRY	DRY	DRY	DRY	DRY	N	N	AN	N	N	ABN	N	
28	COASTAL ANDHRA PRADESH	ISOL	ISOL	ISOL	DRY	ISOL	DRY	DRY	N	N	N	N	N	N	N	
29	TELANGANA	DRY	DRY	DRY	DRY	DRY	DRY	DRY	N	N	N	N	N	N	N	
30	RAYALASEEMA	ISOL	DRY	DRY	DRY	DRY	DRY	DRY	N	N	N	N	N	N	BN	
31	TAMILNADU & PUDUCHERRY	FWS	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	N	N	N	N	N	N	N	
32	COASTAL KARNATAKA	ISOL	DRY	DRY	DRY	DRY	DRY	DRY	N	N	N	MBN	N	BN	BN	
33	NORTH INTERIOR KARNATAKA	DRY	DRY	DRY	DRY	DRY	DRY	DRY	N	N	N	BN	N	N	ABN	
34	SOUTH INTERIOR KARNATAKA	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY	N	N	N	BN	BN	BN	BN	
35	KERALA	FWS	FWS	SCT	ISOL	DRY	ISOL	SCT	N	N	N	N	N	N	N	
36	LAKSHADWEEP	DRY	SCT	DRY	SCT	SCT	DRY	DRY	N	N	N	N	N	N	N	

LEGENDS FOR RAINFALL:																
WDS	WIDE SPREAD / MOST PLACES (76-100%)	FWS	FAIRLY WIDE SPREAD / MANY PLACES (51-75%)	SCT	SCATTERED/ FEW PLACES (26-50%)	ISOL	ISOLATED (UP TO 25%)									
DRY	NO STATION REPORTED RAINFALL	RAINFALL ACTIVITY			*	ACTIVE (R/F 1 ¹ / ₂ - 4 times the normal)	**	VIGOROUS (R/F More than 4 times)								

LEGENDS FOR TEMPERATURE:																
N	NORMAL (N,N+1,N-1) ^o C	BN	BELOW NORMAL (N-2) ^o C	ABN	APRECIABLY BELOW NORMAL (N-3, -4) ^o C	MBN	MARKEDLY BELOW NORMAL (N-5 AND BELOW) ^o C									
AN	ABOVE NORMAL (N+2) ^o C	AAN	APRECIABLY ABOVE NORMAL (N+3,+4) ^o C	MAN	MARKEDLY ABOVE NORMAL (N+5 AND ABOVE) ^o C											
*	Cold wave conditions (Departure from Normal is -4 ^o C to -5 ^o C and -5 ^o C to -6 ^o C)						**	Severe Cold wave conditions (Departure from Normal is -6 ^o C or less and -7 ^o C or less)								

Table: 1.4

Met-Sub-Division	15-Nov Today	16Nov Wed	17Nov Thu	18Nov Fri	19Nov Sat
1. Andaman & Nicobar Islands	FWS	SCT	SCT	SCT	SCT
2. Arunachal Pradesh	DRY	DRY	DRY	DRY	DRY
3. Assam & Meghalaya	DRY	DRY	DRY	DRY	DRY
4. N. M. M. & T.	DRY	DRY	DRY	DRY	DRY
5. S.H. West Bengal & Sikkim	DRY	DRY	DRY	DRY	DRY
6. Gangetic West Bengal	DRY	DRY	DRY	DRY	DRY
7. Odisha	DRY	DRY	DRY	DRY	DRY
8. Jharkhand	DRY	DRY	DRY	DRY	DRY
9. Bihar	DRY	DRY	DRY	DRY	DRY
10. East Uttar Pradesh	DRY	DRY	DRY	DRY	DRY
11. West Uttar Pradesh	DRY	DRY	DRY	DRY	DRY
12. Uttarakhand	DRY	DRY	DRY	DRY	DRY
13. Haryana, Chd & Delhi	DRY	DRY	DRY	DRY	DRY
14. Punjab	DRY	DRY	DRY	DRY	DRY
15. Himachal Pradesh	DRY	DRY	DRY	DRY	DRY
16. Jammu & Kashmir	DRY	DRY	DRY	DRY	ISOL
17. West Rajsthan	DRY	DRY	DRY	DRY	DRY
18. East Rajasthan	DRY	DRY	DRY	DRY	DRY
19. West Madhya Pradesh	DRY	DRY	DRY	DRY	DRY
20. East Madhya Pradesh	DRY	DRY	DRY	DRY	DRY
21. Gujarat Region	DRY	DRY	DRY	DRY	DRY
22. Saurashtra & Kutch	DRY	DRY	DRY	DRY	DRY
23. Konkan & Goa	DRY	DRY	DRY	DRY	DRY
24. Madhya Maharashtra	DRY	DRY	DRY	DRY	DRY
25. Marathawada	DRY	DRY	DRY	DRY	DRY
26. Vidharbha	DRY	DRY	DRY	DRY	DRY
27. Chhattisgarh	DRY	DRY	DRY	DRY	DRY
28. Coastal Andhra Pradesh	DRY	DRY	DRY	DRY	DRY
29. Telangana	DRY	DRY	DRY	DRY	DRY
30. Rayalaseema	DRY	DRY	DRY	DRY	DRY
31. Tamilnadu & Puducherry	ISOL	ISOL	ISOL	ISOL	ISOL
32. Coastal Karnataka	DRY	DRY	DRY	DRY	DRY
33. North Interior Karnataka	DRY	DRY	DRY	DRY	DRY
34. South Interior Karnataka	ISOL	DRY	DRY	DRY	DRY
35. Kerala	SCT	ISOL	ISOL	ISOL	ISOL
36. Lakshadweep	ISOL	ISOL	DRY	DRY	DRY

% Station Reporting Rainfall

% Stations	Category	% Stations	Category
76-100	Widespread (WS/Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespred (FWS/ Many Places)	1-25	Isolated (ISOL)
No Rain	Dry		

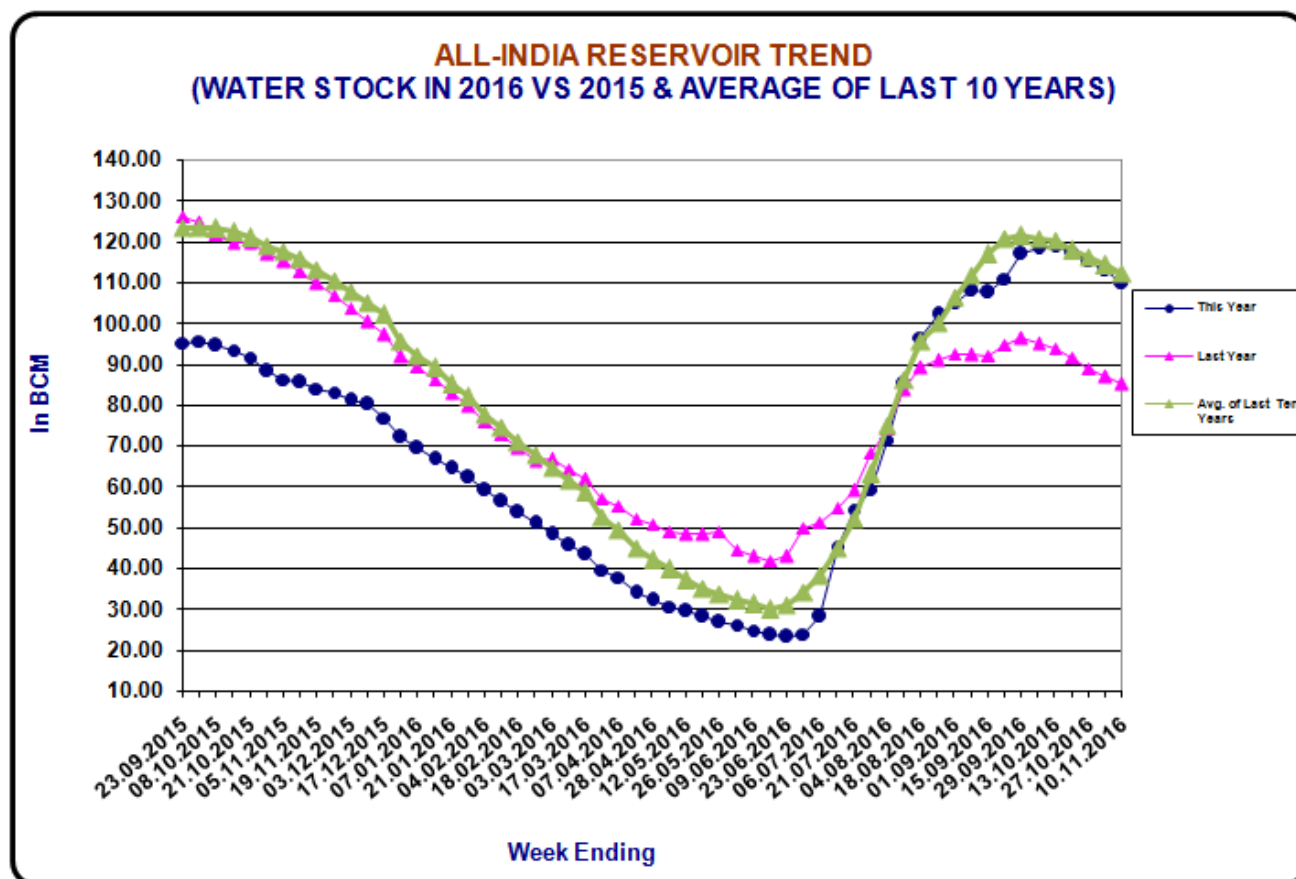
2. Reservoir Status (For the week ending on 10.11.2016)

- **The Central Water Commission** monitors the live storage of **91** important/major reservoirs, having capacity at Full Reservoir Level (FRL) of **157.80** billion cubic meters (BCM), which is about 62% of total reservoir capacity in the country.
- Water stock in 91 major reservoirs **decreased** to 110.10 BCM from the previous week's level of 113.01 BCM. Current storage is higher than the last year's position of 85.27 BCM and lower than the average of last 10 year's storage of 112.30 BCM.

Table – 2.1 : For 91 major reservoirs of the country

Period	Storage as % of FRL	Storage as % of last year	Storage as % of 10 year's average level
Current Week	70	129	98
Last Week	72	130	99
The percentage to live capacity at FRL was 54% on 10/11/2015, 72% on 10/11/2014, 88% on 10/11/2013 and 71% on 10/11/2012.			
<i>Source: CWC</i>			

There were 57 reservoirs having storage more than 80% of normal storage, 17 reservoirs having storage between 50% to 80%, 05 reservoir having storage between 30% to 50%, 12 reservoir having storage upto 30% of Normal Storage and 1 reservoir having no live storage.



Source: Central Water Commission

3. Fertilizer Position:

Table – 3.1: Requirement, Availability, Sales and Stock position of Major Fertilizers Urea, DAP, MOP, Complex and SSP during Rabi 2016-17 (As on 11.11.2016)

(in '000 Tonnes)

Availability / Sale / Closing Stock	Urea	DAP	MOP	Complex	SSP
Opening Stock as on 01.10.2016	1698	1535	271	1200	211
Requirement for Rabi, 2016-17	15136	5245	1841	5370	3357
Requirement upto November, 2016	3276	1245	408	1116	733
Availability upto 11.11.2016	4411	2824	661	2104	711
Sales upto 11.11.2016	1862	1088	306	693	428
Closing Stock upto 11.11.2016	2550	1736	355	1411	284

Source: Fertilizer Division (DAC) / Deptt. of Fertilizer

4. Pest & Diseases:

- Incidence of Armyworm on Rice crop has been reported in low intensity in Bahretta, Hariballabh, Bhutane & Lohsani villages of Bochaha block; Jamalpur Kodai & Radhopur villages of Gayadhar block of Muzaffarpur district of Bihar State covering 125 Acre area.
- No shortage of Chemical / Bio-pesticides was reported from any State / UT.