

F. No. W-11020/8/2015/Water-I
Government of India
Ministry of Drinking Water & Sanitation

4th Floor, Paryavaran Bhawan
CGO Complex, Lodhi Road,
New Delhi – 10003.

Dated : 4.6.2015

To

Principal Secretaries/ Secretaries
In-charge of Rural Water Supply of all States

Sub: Long Range Forecast update for 2015 Southwest Monsoon Rainfall.

Sir/ Madam,

Please refer to this Ministry letter dated 2.6.2015 on the subject cited above. This is for your further kind information that Indian Meteorological Department (IMD) has issued its 2nd Stage Long Range Forecast update for the 2015 Southwest Monsoon rainfall on 2.6.2015 vide which it has been predicted that :

- A. Quantitatively, the season rainfall for the country as a whole is likely to be 88% of the Long Period Average (LPA) with a model error of ± 4 %. The LPA of the season rainfall over the country as a whole for the period 1951-2000 is 89 cm.
- B. The 5 category probability forecasts for the Seasonal (June to September) rainfall over the country as a whole is given below:-

Category	Rainfall Range 9% of LPA)	Forecast probability (%)	Climatological Probability (%)
Deficient	<90	66	16
Below Normal	90-96	27	17
Normal	96-104	7	33
Above Normal	104-110	0	16
Excess	>110	0	17


2. The Press Note and the Annexures issued by the IMD dated 2.6.2015 are enclosed for your information. In the light of this forecast, as advised vide this Ministry's above referred letter, States have to take steps for preparedness and response in order to tackle the present drought like condition and prepare the contingency plans in this regard.

3. States/UTs may utilize the 15% O&M funds already provided under NRDWP funds. This funds can be utilized by States for maintenance to the defective water supply systems. Water Supply through Water Tanks and other means may also be carried out using 10% flexi funds under NRDWP.

4. States are also requested to keep a close watch subsequent report of IMD. As stated earlier, Ministry would like to review the situation on a fortnightly basis you are requested to enter the detailed information on the on-line monitoring system of the Ministry on a fortnightly basis as per the enclosed format. A video conference will also be convened as per the enclosed schedule to review the progress in this regard. Concerned officials may please attend the same.

Encls: As Above

Yours Sincerely,



(Rajesh Kumar)

Director(Water)

Progress report on drinking water mitigation activities 2015-16

Name of State :

Report as on :

Sr. No.	Activities	Work Planned as per Contingency Plan	Work achieved as per Contingency Plan
1	Total No. of habitations affected by drinking water scarcity		
2	No. of existing tube wells/ bore wells depended, rejuvenated or repaired		
	(a) Deepening (Nos.)		
	(b) Rejuvenation/ Repair/ Replacement of pumping machinery		
3	Augmentation of source (Nos.)		
4	Rejuvenation/ repair of Hand pumps (Nos.)		
5	No. of New tube wells/ bore wells		
	(a) Hand Pumps		
	(b) Bore wells/ tube wells with mini pumps		
	(c) Deep tube wells		
	(d) Construction of open dug wells		
6	No. of tankers deployed to transport drinking water		
7	Tankers supplied daily (Nos.)		
8	Total funds utilised for drinking water supply in rural areas with drought like situation (Rs. In Lakhs)		

Schedule of Video Conference to check the progress for Contingency Plan.

Date and Time	Participating Sites	Purpose	VC ID
10/06/2015 10:00 AM (2:00 Hrs.)	Hyderabad-NIC, Guwahati-NIC1, Patna-NIC, NIC-Raipur-CGSU1, Gandhi Nagar-NIC, Shimla-NIC, Ranchi-NIC1, Srinagar-NIC-Sectt, Shilling-NIC, Chandigarh (HR)-NIC1, Paryavaran Bhawan (Drinking Water)	To discuss Drought Contingency Plan 2015-16	103436
11/06/2015 10:00 AM (2:00 Hrs.)	Itanagar-NIC, Thiruvananthapuram-NIC, Aizwal-NIC, Imphal-NIC, Bhopal-NIC, Mumbai-NIC, Kohima-NIC, Bhubeneshwar-NIC, Chandigarh (PB)-NIC1 Gangtok-NIC, Paryavaran Bhawan (Drinking Water)	To discuss Drought Contingency Plan 2015-16	103437
12/06/2015 10:00 AM (2:00 Hrs.)	Bengaluru-NIC, Jaipur-NIC, Agartala-NIC, Chennai-NIC1, Dehradun-NIC, Lucknow-NIC2, Kolkata-NSB, Port Blair-NIC, Paryavaran Bhawan (Drinking Water), Rangareddy,	To discuss Drought Contingency Plan 2015-16	103438

**Earth System Science Organization (ESSO)
Ministry of Earth Sciences (MoES)
India Meteorological Department**

Long Range Forecast Update for 2015 Southwest Monsoon Rainfall

HIGHLIGHTS

- Rainfall over the country as a whole for the 2015 southwest monsoon season (June to September) is likely to be deficient (<90% of LPA).
- Quantitatively, monsoon season rainfall for the country as a whole is likely to be 88% of the long period average with a model error of $\pm 4\%$.
- Region wise, the season rainfall is likely to be 85% of LPA over North-West India, 90% of LPA over Central India, 92% of LPA over South Peninsula and 90% of LPA over North-East India all with a model error of $\pm 8\%$.
- The monthly rainfall over the country as whole is likely to be 92% of its LPA during July and 90% of LPA during August both with a model error of $\pm 9\%$.

1. Background

ESSO-India Meteorological Department (IMD) issues the operational long range forecasts for the southwest monsoon season (June-September) rainfall over the country as a whole in two stages; in April and in June. In June, in addition to the update for the forecast for the season rainfall over the country as a whole issued in April, forecasts for the monthly rainfall for July & August over the country as a whole, and forecast for the season rainfall for the 4 broad geographical regions of India (NW India, NE India, Central India and South Peninsula) are issued.

The update forecast for the southwest monsoon season (June-September) rainfall over the country as a whole is issued using a 6-parameter Ensemble Forecasting System. The 6 predictors used are: NE Pacific to NW Atlantic SST Anomaly Gradient (December + January), Southeast equatorial Indian Ocean Sea Surface Temperature (February), East Asia Mean Sea Level Pressure (February + March), Central Pacific (Nino 3.4) Sea Surface Temperature (March to May + tendency between March to May & December to February), North Atlantic Mean Sea Level Pressure (May) and Northcentral Pacific 850 zonal wind gradient (May).

2. Sea Surface Temperature Conditions in the Pacific & Indian Oceans

Since April, 2015 weak El Nino conditions are established over equatorial Pacific Ocean. Atmospheric conditions like weakened trade winds, negative Southern Oscillation Index (SOI) values etc. generally associated with El Nino conditions are also observed. The



latest forecast from IMD-IITM coupled model indicates El Nino conditions are likely to strengthen further and reach to moderate strength during the monsoon season. There is about 90% probability of El Nino conditions to continue during the southwest monsoon season. Over Indian Ocean, currently, slight basin wide warming along with neutral Indian Ocean Dipole (IOD) conditions is prevailing. The latest forecast from ESSO-IMD-IITM coupled model indicates about 50% probability of neutral IOD conditions to continue during the monsoon season.

3. Monsoon Mission Experimental Coupled Dynamical Model Forecast

The experimental forecast based on the ESSO-IMD-IITM coupled dynamical model suggest that the monsoon rainfall during the 2015 monsoon season (June to September) averaged over the country as a whole is likely to be $86\% \pm 5\%$ of long period model average (LPMA). The experimental five category probability forecasts for the 2015 monsoon season rainfall over the country as a whole using the experimental dynamical prediction system are 61% (deficient), 24% (below normal), 13% (normal), 2% (above normal) and 0% (excess).

4. The second Stage Forecasts for 2015 Southwest Monsoon Rainfall

i) Seasonal (June-September) Rainfall over the country as a whole

Quantitatively, the season rainfall for the country as a whole is likely to be 88% of the long period average (LPA) with a model error of $\pm 4\%$. The LPA rainfall over the country as a whole for the period 1951-2000 is 89 cm.

The 5 category probability forecasts for the Season (June to September) rainfall over the country as a whole is given below.

Category	Rainfall Range (% of LPA)	Forecast Probability (%)	Climatological Probability (%)
Deficient	< 90	66	16
Below Normal	90 - 96	27	17
Normal	96 -104	7	33
Above Normal	104 -110	0	16
Excess	> 110	0	17

ii) Season (June-September) Rainfall over Broad Geographical Regions

The season rainfall is likely to be 85% of LPA over North-West India, 90% of LPA over Central India, 92% of LPA over South Peninsula, and 90% of LPA over North-East India all with a model error of $\pm 8\%$.

iii) Monthly (July & August) Rainfall over the country as a whole

The rainfall over the country as a whole is likely to be 92% of its LPA during July and 90% of LPA during August both with a model error of $\pm 9\%$.

