

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: 02.06.2015

To
Principal Secretaries / Secretaries
In-charge of Rural Water Supply
All States

Sir / Madam,

This is for your kind information that the Indian Meteorological Department (IMD) in its 'first Stage Long Range Forecast for the 2015 Southwest Monsoon rainfall issued on 22.04.2015' predicted that:

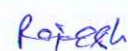
- A. Quantitatively, the season rainfall for the country as a whole is likely to be 93% of the Long Period Average (LPA) with a model error of ± 5 %. The LPA of the season rainfall over the country as a whole for the period 1951-2000 is 89 cm.
- B. The 5 category probability forecasts for the Seasonal (June to September) rainfall over the country as a whole is given below:-

Category	Rainfall Range (% of LPA)	Forecast probability (%)	Climatological Probability (%)
Deficient	<90	33	16
Below Normal	90-96	35	17
Normal	96-104	28	33
Above Normal	104-110	3	16
Excess	>110	1	17

2. The Press Note and the Annexures issued by the IMD dated April 2015 is enclosed for information. In the light of this forecast, States have to take steps for preparedness and response in order to tackle the present drought like condition. This is to include complete repair works of all bore wells and to prepare Contingency Plans for the entire deficient districts. It is hereby requested to appraise this Ministry regarding the steps taken by your State and Contingency Plan by 09.05.15 positively through fax as well as mail.

3. As 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 Conferencing will be convened to share the progress in this respect, date of which will be intimated shortly.

Yours Sincerely,



(Rajesh Kumar)
Director (Water)

Progress report on drinking water mitigation activities 2015-16

Name of State :

Report as on :

S. 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)		

**Earth System Science Organization (ESSO)
Ministry of Earth Sciences (MoES)
INDIA METEOROLOGICAL DEPARTMENT**

**Long Range Forecast
For the 2015 Southwest Monsoon Season Rainfall**

1. Background

ESSO-India Meteorological Department (IMD) issues various monthly and seasonal operational forecasts for rainfall during the southwest monsoon season. Operational models are critically reviewed regularly and further improved through in-house research activities. Operational forecasts for the southwest monsoon season (June – September) rainfall are issued in two stages. The first stage forecast is issued in April and the second stage forecast is issued in June.

The ESSO-IMD's Ensemble Statistical Forecasting system for the April forecast uses the following 5 predictors.

S. No	Predictor	Period
1	The Sea Surface Temperature (SST) Gradient between North Atlantic and North Pacific	December + January
2	Equatorial South Indian Ocean SST	February
3	East Asia Mean Sea Level Pressure	February + March
4	Northwest Europe Land Surface Air Temperature	January
5	Equatorial Pacific Warm Water Volume	February + March

2. Sea Surface Temperature (SST) Conditions in the equatorial Pacific & Indian Oceans

For the last about six months, positive SST anomalies have been prevailing over the western and the central Pacific Ocean. However, the SSTs over eastern Pacific after remaining near to below normal between late December 2014 and mid-March 2015 have now become above normal. Thus currently, weak El Nino conditions are prevailing over the Pacific. The latest forecast from the IMD-IITM coupled model forecast indicates El Nino conditions are likely to persist during the southwest monsoon season.

At present, slight negative Indian Ocean Dipole (IOD) conditions are prevailing over Indian Ocean. The latest forecast from the coupled model indicates negative IOD conditions are likely to persist during the monsoon season.

As the extreme sea surface temperature conditions over Pacific and Indian Oceans particularly ENSO conditions over Pacific (El Nino or La Nina) are known to have strong influence on the Indian summer monsoon, IMD is carefully monitoring the sea surface conditions over Pacific and Indian oceans.

3. Experimental Coupled Dynamical Model Forecasting System - ESSO Monsoon Mission Model

The ESSO-Indian Institute of Tropical Meteorology (IITM), Pune is coordinating and working along with different climate research centers from India and abroad on the development of a coupled model for the forecasting of Indian summer monsoon rainfall under ESSO's Monsoon Mission project. The latest high resolution research version of the Coupled Forecasting System (CFS) originally developed by the National Centers for Environmental Prediction (NCEP), USA has been implemented at the ESSO-IITM. This model was used to generate the experimental update forecast for the 2015 southwest Monsoon season rainfall using the February initial conditions. The model has moderate skill.

The experimental forecast based on the coupled dynamical model forecasting system suggest that the monsoon rainfall during the 2015 monsoon season (June to September) averaged over the country as a whole is likely to be $91 \pm 5\%$ of long period model average (LPMA).

4. Summary of the ESSO-IMD's Operational long range Forecast for the 2015 Southwest monsoon rainfall

(a) Quantitatively, the monsoon seasonal rainfall is likely to be 93% of the Long Period Average (LPA) with a model error of $\pm 5\%$. 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 (% of LPA)	Forecast Probability (%)	Climatological Probability (%)
Deficient	< 90	33	16
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ESSO-IMD will issue the update forecasts in June, 2015 as a part of the second stage forecast. Along with the update forecast, separate forecasts for the monthly (July and August) rainfall over the country as a whole and seasonal (June-September) rainfall over the four geographical regions of India will also be issued.