GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
LOK SABHA
UNSTARRED QUESTION NO. 3221
TO BE ANSWERED ON WEDNESDAY, 9TH AUGUST, 2023

IMPACT OF EL NINO

3221. SHRI PARVESH SAHIB SINGH VERMA:
SHRI DUSHYANT SINGH:

Will the Minister of EARTH SCIENCES be pleased to state:

(a) whether the Government is preparing for an "El Nino" impacted monsoon in the current year, if so, the details thereof;
(b) whether the Government has carried out any assessment of the potential impact of E1 Nino on India's agriculture, water resources and overall economy in the coming year;
(c) if so, the details thereof stating the impact on the various States of the country particularly in the State of Rajasthan;
(d) whether the Ministry has taken any measures to monitor and predict the intensity of El Nino events in order to improve preparations and response to its effects on the vulnerable regions of the country;
(e) if so, the details thereof and if not, the reasons therefor; and
(f) whether the Government has also prepared any contingency plan to deal with a situation arising out of a weak or irregular monsoon and if so, the details thereof?

ANSWER
THE MINISTER OF EARTH SCIENCES
(SHRI KIREN RIJIJU)

(a) India Meteorological Department (IMD) issues forecast for Monsoon Seasonal rainfall in different stages which include the details of El-Nino condition also. The first stage forecast for monsoon seasonal rainfall is issued in the middle of April with an update during end of May and forecast for the 2nd half of Monsoon is issued towards the end of July.

(b) Continuous forecast updates on rainfall and the status of El Nino are provided for the entire country. These forecasts are issued to support planning activities in various sectors including Agriculture, Water Resources etc.

(c) During the El Nino event, Indian summer monsoon is weaker than normal and the intensity of the event also decides the amount of impact on the monsoon. Out of the fifteen El Nino years during the period 1951-2015, **El Nino is associated with below normal to deficient rainfall during the monsoon season in 9 years, the remaining 6 years experienced normal to excess rainfall.** Also, there is strong inverse relationship between El Nino and rainfall during latter half of the monsoon season (particularly with September rainfall). However, it is important to note that El Niño is not the only factor that decides the performance of monsoon over India. Other relevant climate drivers like the Indian Ocean Dipole (IOD), the Tropical Atlantic Sea Surface Temperature (SST) Dipole, Eurasian land heating etc. are also important in deciding the performance of the southwest monsoon rainfall. The relative impact of all these parameters altogether decides the state of the monsoon over India, including the State of Rajasthan.

(d) Yes Sir.

(e) Every month, Office of the Climate Research and Services (CRS) of IMD, issues bulletin related to the status and the prediction of the El Nino and Indian Ocean Dipole (IOD).

IMD is monitoring the El Nino conditions continuously and information regarding the latest state of El Nino and its forecast are being updated to the various users through various platforms like IMD website, newspaper etc. on regular basis.

According to the latest forecast, currently, weak El Niño conditions are prevailing over the equatorial Pacific region. The latest climate models indicate that the El Niño conditions are likely to intensity further and continue upto early next year. At present neutral IOD conditions are prevailing over the Indian Ocean and the latest climate models forecast indicates that positive IOD conditions are likely to develop during remaining part of the monsoon season.

IMD issues forecast for Monsoon Seasonal rainfall in different stages which include the details of El-Nino condition also. Accordingly as per the latest update issued on 31 July 2023, rainfall over the country as a whole during the second half (August to September period) of the southwest monsoon season, 2023 is very likely to be normal (94 to 106% of Long Period Average (LPA)), most probably on the negative side of the normal.

(f) As on 4 August 2023, entire country received 5 % above normal rainfall since 1 June 2023. These forecasts are issued to support planning activities in various sectors including Agriculture, Water Resources etc.

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