

**GOVERNMENT OF INDIA
AGRICULTURE
LOK SABHA**

UNSTARRED QUESTION NO:2848
ANSWERED ON:11.08.2003
POOR RAINS
T.T.V. DHINAKARAN

Will the Minister of AGRICULTURE be pleased to state:

- (a) whether the country has been receiving poor rains during the last four years in general, affecting mainly agriculture;
- (b) if so, whether the Government have ascertained the reasons for this, both natural and man-made; and
- (c) if so, the steps taken by the Government to provide sufficient water for irrigation, particularly in rain-fed areas through cloud-seeding etc.?

Answer

MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI HUKUMDEO NARAYAN YADAV)

(a): No, Sir. The country had a long series of 14 normal monsoons from 1988-2001. Normal rainfall is defined as within + 10% of the Long Period Average (LPA). The monsoon rainfall over the country as a whole in 1999, 2000 and 2001 was 96%, 92% and 92% of LPA respectively. The year 2002 was an all India drought year with a rainfall of 81 % of LPA.

(b): The drought of 2002 was due to several anomalous features of the atmospheric circulation patterns such as;

(i) Presence of anomalous anticyclonic flow/descending motion over western parts of the country,

(ii) Absence of monsoon depressions during the season as against the normal of 5-6 depressions per season.

(iii) Feeble and short-lived low pressure areas and trough,

(iv) Weak monsoon trough, which was located close to foothills of Himalayas for a long time in July.

(v) Weak cross equatorial flow in the Arabian Sea and the Bay of Bengal,

(vi) Anomalous behaviors of the El-Nino.

There is no evidence of long term trend in South-West monsoon rainfall which can be attributed to man-made reasons.

(c): Under large-scale drought situations such as in 2002, the meteorological conditions would be unfavourable for formation of clouds suitable for seeding. Hence the opportunities for artificial rain through cloud seeding in such regions would be limited. However, Indian Institute of Tropical Meteorology (IITM), Pune had conducted experiments on a limited scale in research mode in some places in the past which have resulted in marginal increase in rainfall.