

**GOVERNMENT OF INDIA
AGRICULTURE
LOK SABHA**

STARRED QUESTION NO:126
ANSWERED ON:27.02.2006
WEATHER FORECAST TO FARMERS
Rao Shri Kavuru Samba Siva

Will the Minister of AGRICULTURE be pleased to state:

- (a) the impact of adverse weather conditions on crop cultivation recorded in the country during the last three years;
- (b) whether the Government has adequate mechanism to provide credible and reliable weather forecast to farmers in different regions of the country;
- (c) if so, the details thereof;
- (d) whether the Government proposes to develop the systems of extended range of weather forecast to help farmers decide in advance to sow the crops at right time and protect their standing produce and avoid losses due to adverse weather; and
- (e) if so, the details thereof?

Answer

MINISTER OF AGRICULTURE (SHRI SHARAD PAWAR)

(a) to (e): A statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (e) OF LOK SABHA STARRED QUESTION NO. 126 DUE FOR REPLY ON 27TH FEBRUARY, 2006.

(a): Adverse weather conditions, including rainfall, have significant impact on crop production. The details relating to south-west monsoon (June-September) rainfall and normal rainfall, along with production of kharif cereals, pulses and oilseeds are given below:-

(South -West Monsoon 1st June – 30th Sept.)

Sl.No.	Monsoon Year	Rainfall (in mm)		Percentage of Normal	Kharif production (in lakh tonnes)			
		Normal	Actual		Cereals	Oilseeds	Pulses	Total

1.	2003	902.7	922.5	102	1107.2	167.73	61.6	1336.5
2.	2004	893.3	781.2	87	983.7\$	149.37\$	49.5\$	1182.6\$
3.	2005	892.5	879.3	99	1026.8#	159.87#	54.7#	1241.4#

\$ - Indicates 4th advance estimate of production

- Indicates 2nd advance estimate of production

It may be seen from this statement that during 2004, when the monsoon rainfall was 87% of normal, crop production has declined during the year.

(b) & (c): The government has a mechanism to provide weather forecast in the country through India Meteorological Department (IMD) and National Centre for Medium Range Weather Forecast (NCMRWF).

An organized mechanism exists in IMD to provide long range forecast of south-west monsoon rainfall in different parts of the country. The long range forecasts are issued in two stages, the first one during mid April followed by an update in the beginning of July every year.

The update forecast also contains forecast of monsoon rainfall for four homogeneous regions (North-west India, North-east India, Central India and Peninsular India), monsoon rainfall for the month of July. Besides long range forecasts, short range forecasts for 1 to 4 days are issued by IMD on a regular basis.

The IMD uses econometric model for establishing correlations between monsoon rainfall and antecedent atmospheric and oceanic parameters such as sea surface temperature, snow cover, mean temperature and pressure gradient. The model error is ? 5%. These mechanism have been found to be generally credible, but need to be further refined for greater accuracy, and infrastructure strengthened.

The NCMRWF on the other hand, generates agro-climatic zone specific medium range

(4-10 days) weather forecast for different agro-climatic zones for the benefit of farmers.

(d) & (e): Yes, Sir. The government has already initiated a project on `Development of Extended Range Forecast (ERFS) for Climate Risk Management in Agriculture` with the support of Indian Institute of Technology (IIT) Delhi, India Meteorological Department, National Centre for Medium Range Weather Forecast, Space Application Centre and Indian Council of Agriculture Research. Support from other agencies working in the field would also be obtained as and when required. The project is being coordinated by IIT Delhi through a Scientific and Technical Committee. The project which envisages seasonal to monthly scale forecast of precipitation and air temperature at regional level is expected to be completed in two phases over a period of six years. The project would be fully funded by Department of Agriculture and Cooperation, Ministry of Agriculture.