

**GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA**

UNSTARRED QUESTION NO:614
ANSWERED ON:08.07.2009
ASSESSMENT OF AGRICULTURAL PRODUCTION
Reddy Shri Magunta Srinivasulu

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

- (a) whether his Ministry has explored possibilities in collaboration with the Ministry of Earth Sciences for increasing agricultural production in the country;
- (b) if so, the details thereof;
- (c) whether capabilities of the land have been tested to assess per hectare agricultural production in each and every State of the country;
- (d) if so, the outcome thereof, State-wise; and
- (e) if not, the reasons thereof?

Answer

MINISTER OF STATE (INDEPENDENT CHARGE) OF THE MINISTRY OF SCIENCE AND TECHNOLOGY; MINISTER OF STATE (INDEPENDENT CHARGE) OF THE MINISTRY OF EARTH SCIENCES; MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE; MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES AND PENSIONS; AND MINISTER OF STATE IN THE MINISTRY OF PARLIAMENTARY AFFAIRS (PRITHVIRAJ CHAVAN)

- (a) to (e): As part of Ministry of Science and Technology's disaster management and agricultural development programme, in Department of Science and Technology experiments were done with data sets from large number of international satellites on GIS platform. This Ministry have successfully developed an algorithm whereby monitoring of crops on weekly basis using biomass index to demarcate areas where crop is under stress has become possible. The system allows monitoring of following attributes like
- (i) the areas under different crops,
 - (ii) health of the crop and identification of areas affected by disease or under stress;
 - (iii) per hectare production of crop;
 - (iv) soil moisture, rainfall and surface temperature, critical parameters for agriculture; and
 - (v) impact of severe weather conditions such as drought, hailstorm etc. Information on the above parameters is being provided to State Governments like Punjab, Haryana, Rajasthan, U.P, Bihar and Orissa. The Mission is in the process of expanding this facility to other parts of India. The Mission is now working with the National Agriculture Insurance Corporation to develop products for crop insurance.