

programmes for replicating it in their respective states. The various institutes of Council located in different agro-climatic regions of the country disseminate their research findings to State Governments, through research reports, publications, bulletins and leaflets in local languages.

Impact of climatic change on agriculture

¶3686. SHRI RUDRA NARAYAN PANY: Will the Minister of AGRICULTURE be pleased to state:

- (a) whether 'climate change' has started affecting agricultural production of the country;
- (b) if so, the details thereof of the last three years; and
- (c) the measures being contemplated by Government to tackle this serious problem?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (PROF. K.V. THOMAS):
(a) and (b) The agriculture production especially for foodgrains increased in the past three years which is evident from the following.

Year	Target (million tons)	Achievements (million tones)
2006-07	220.00	217.27
2007-08	221.50	230.77
2008-09	233.00	233.87

(c) During Eleventh Plan the Indian Council of Agricultural Research has initiated research project to monitor climate change impacts through a network project entitled National Project on Climate Change (NPCC) involving State Agricultural Universities and ICAR Institutes. Under this project, Climate change impacts on rice, wheat, pulses, horticulture, livestock and fisheries are being studied. The measures contemplated by the Council consist of both (i) Mitigation strategies like advancing dates of sowing of kharif crops, conversion of C3 plants to C4 in rice, methane emission reduction in livestock, shelter management, promotion of resource conservation strategies, and better utilization of weather forecasts in crop production, and (ii) The Adaptation strategies to develop short duration and temperature tolerant crop varieties during rabi.

In addition to the above initiative of ICAR, the Government of India has prepared the National Action Plan on Climate Change (NAPCC) under which 8 national missions are formed to address the impacts of Climate Change on agriculture, energy and water resources.

Famine situation in country

†3687. SHRI Y. P. TRIVEDI: Will the Minister of AGRICULTURE be pleased to state:

†Original notice of the question was received in Hindi.

- (a) whether there is famine like situation in whole country because of less rainfall so far in all parts of the country;
- (b) if so, the measures taken by the Central Government to deal with the situation;
- (c) whether Central Government has given any directions to the State Governments also to tackle the situation; and
- (d) if so, the details thereof?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (PROF. K.V. THOMAS):
 (a) to (d) No report on famine like situation has been received from any State so far due to deficient rainfall during South-West Monsoon 2009.

Impact of shortfall of rains

3688. PROF. ALKA BALRAM KSHATRIYA:
 DR. T. SUBBARAMI REDDY:

Will the Minister of AGRICULTURE be pleased to state:

- (a) whether delayed rains have hit kharif onion crop;
- (b) whether after the Meteorological Department projected below normal monsoon this year, Ministry have pointed out that shortfall of rains in June, would affect country's food production;
- (c) whether IARI officials met in the month of July and devised plans to meet this crisis; and
- (d) if so, other steps Government has taken or consider to take in this regard and whether Centre has also asked States to monitor kharif sowing?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (PROF. K.V. THOMAS):
 (a) Yes, Sir. The delayed rains during South-West Monsoon 2009 affected the timely sowing of onion in major Kharif onion growing states namely Maharashtra, Gujarat, Rajasthan, Punjab, Haryana, Karnataka and Andhra Pradesh.

(b) The Indian Meteorological Department (IMD)'s long range forecast for South-West Monsoon 2009 season (June-September) for the country as a whole was likely to be near normal. Quantitatively, the monsoon season rainfall was likely to be 96% of long period average with a model error of $\pm 5\%$.

(c) Yes, Sir. Research Advisory Council of the Institute under the Chairmanship of Dr. R.S. Paroda, Former DG, ICAR and Secretary, DAER, met in 17-18th July, 2009 and suggested that new projects formulated at the Institute should address such issues like shortfall of rains. In other words emphasis to be laid on drought tolerant varieties, water utilization efficiency and impact of climate change.

(d) It is too early to assess the agriculture production. Ministry of Agriculture has been constantly in touch with the State Governments and agencies like Indian Council of Agricultural