(e) the details of steps taken to protect ground water and environment from chemical fertilizers?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE AND FARMERS WELFARE (SHRI PARSHOTTAM RUPALA): (a) and (b) There is no harmful effect of chemical fertilizers with recommended doses and its judicious Use. The study conducted by Indian Council of Agricultural Research under All India Coordinated Research Project on 'Long-Term Fertilizer Experiments' in different soil types (fixed locations) under dominant cropping systems has revealed that even in plots receiving NPK fertilizers, the deficiency of micro and secondary nutrients surfaced after few years affecting soil health and crop productivity. The limiting nutrients do not allow the full expression of other nutrients, thereby, lowering the fertilizer responses and crop productivity. Highest decline in crop yield was observed in plot receiving only Urea.

(c) and (d) There is possibility of nitrate contamination in ground water above the permissible limit of 10 mg  $NO_3$ -N /L due to excessive use of nitrogenous fertilizers including urea particularly in light textured soils. There is also possibility of release of N<sub>2</sub>O in the atmosphere through the process of denitrification of nitrogenous fertilizers.

(e) Soil Health Card Scheme is being implemented to assist all State Governments to evaluate fertility in all farm holdings across the country and issue soil health cards to farmers regularly in a cycle of 2 years. Soil health cards provide information to farmers on nutrient status of their soil along with recommendations on appropriate dosage of nutrients to be applied for improving soil health and its fertility. The Indian Council of Agricultural Research (ICAR) is recommending soil test based balanced and integrated nutrient management through conjunctive use of both inorganic and organic sources (manure, biofertilizers etc.) of plant nutrients to ensure judicious use of chemical fertilizers preventing deterioration of soil health, contamination of groundwater and environment. In addition, split application and placement of fertilizers, use of slow releasing N-fertilizers and nitrification inhibitors, growing leguminous crops and use of Resource Conservation Technologies (RCTs) are also advocated. The ICAR also imparts training, organises Front Line Demonstrations (FLDs) etc. to educate farmers on all these aspects.

## Area under pulses cultivation

2100. SHRI V. VIJAYASAI REDDY: Will the Minister of AGRICULTURE AND FARMERS WELFARE be pleased to state:

(a) whether it is a fact that net sown area of pulses in this Kharif season came down by nearly 5 per cent to 130 lakh hectares;

Unstarred Questions

(b) if so, whether country will be having scarcity of pulses and would be scouting for pulses in other countries as was done in 2015-16;

(c) the area in Andhra Pradesh and Telangana where pulses have been sown this Kharif season, State-wise, and how this can be compared with previous two years; and

(d) whether Government has made any arrangements to meet the shortage, if any?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE AND FARMERS WELFARE (SHRI GAJENDRA SINGH SHEKHAWAT): (a) and (b) The Kharif area coverage under pulses has reduced from the record level of 143.44 lakh hectare in 2016-17 (4th Advance estimates) to 132.84 lakh hectares in 2017-18 (1st Advance estimates). However, the area coverage of pulses during 2017-18 Kharif season is significantly more than the average area of five years ending 2015-16.

The total production of Kharif pulses 2017-18 is estimated at 8.71 million tonnes which is lower by 0.72 million tonnes than the last year's record production of 9.42 million tonnes. However, kharif pulses estimated production is 2.86 million tonnes more than the average production of five years ending 2015-16. It is also significantly more than the production of Kharif Pulses in 2015-16 which stood at 5.53 million tonnes.

Further, the production and availability of pulses have considerably improved in 2016-17 and wholesale prices of pulses have significantly moderated.

(c) The details of area coverage under pulses in Andhra Pradesh and Telangana during the last two years and 2017-18 Kharif season are as under:

			('000 hectares)
States	2015-16	2016-17*	2017-18**
Andhra Pradesh	366.0	451.0	393.0
Telangana	373.0	563.0	364.0
All India	11314.2	14344.4	13284.0

\* As per 4th Advance Estimate 2016-17.

\*\* As per 1st Advance Estimate 2017-18.

(d) The Price Stabilization Fund (PSF) operated by Department of Consumer Affairs has provision for a dynamic buffer stock of upto 20 lakh tonnes of pulses for effective market intervention to stabilize prices.