(d) if so, the details thereof; and

(e) the time by which such new strategy for farm mechanization will be finalized?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI TARIQ ANWAR): (a) Yes, Sir.

(b) The aims and objectives of the proposed Sub Mission on Agricultural Mechanization (SMAM) under National Mission on agricultural Extension and Technology are as under:

- Increasing the reach of farm mechanization to small and marginal farmers;
- Establishment of 'Custom Hiring Centre' to offset the adverse economies of scale arising due to small landholding and high cost of individual ownership;
- Passing on the benefit of hi-tech, high value and hi-productive agricultural machinery to farmers through creating hubs for such farm equipment;
- Promotion farm mechanization through demonstration and capacity building activities; and
- Ensuring quality control of newly developed agricultural machinery.

(c) to (e) It is expected that the small and marginal farmers would avail the benefits under the scheme to acquire farm implements of their use.

Action plan to improve soil health and productivity

2812. DR. T. SUBBARAMI REDDY: Will the Minister of AGRICULTURE be pleased to state:

(a) whether Government has assessed the health of soil including the quality after continued use of chemical fertilizers, pesticides etc. and its likely impact on the overall food production;

(b) if so, the details thereof along with the plan of action initiated to improve soil health and productivity;

(c) whether Government proposes to promote sustainable growth in agriculture in the country;

(d) if so, the steps taken by Government in this direction;

(e) the number of soil testing laboratories in each State/UT at present; and

(f) the steps taken by Government to set up more such laboratories?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI TARIQ ANWAR): (a) and (b) Yes, Sir. The Indian Council of Agricultural Research under All India Coordinated Research Project on 'Long-Term Fertilizer Experiments' has assessed the soil health and quality in different soil types (fixed locations) under dominant cropping systems. The investigation over the last few decades indicated that continuous use of nitrogenous fertilizer alone produced the highest decline in crop yields at almost all the locations showing deficiencies of other nutrients. Even in NPK fertilized system, the deficiency of micro and secondary nutrients surfaced after few years affecting crop productivity. Only integrated use of optimal dose of NPK and organic manure maintained soil health/quality with higher crop productivity.

Similarly, increased use of pesticides may cause decline in beneficial agriculturally useful soil organisms (earthworms, microbflora).

The Council is advocating soil test based integrated nutrient management and integrated pest management to sustain good soil health and higher crop productivity in the country.

(c) and (d) Yes, Sir. The Government of India is implementing various schemes/programmes, namely, Macro Management of Agriculture (MMA), Rashtriya Krishi Vikas Yojana (RKVY), National Food Security Mission (NFSM), Bringing Green Revolution in Eastern India (BGREI), National Horticulture Mission (NHM), Technology Mission on Oilseeds, Pulses and Maize (TMOPM), Integrated Watershed Management Programme (IWMP), National Project on Management of Soil Health and Fertility (NPMSHF) and National Mission on Micro Irrigation (NMMI) to promote sustainable growth in agriculture in the country.

The Indian Council of Agricultural Research (ICAR) is providing requisite technology support, training and extending improved agro-advisories on real time weather data for appropriate agronomic interventions. The Council has completed contingency plans for 400 districts out of the 572 target districts of the country. A Network Project entitled 'National Initiative on Climate Resilient Agriculture' (NIGRA) has also been initiated to cope up with climatic vulnerability.

(e) Details are given in Statement (*See* below).

(f) The Government under National Project for Management of Soil Health and Fertility (NPMSHF) has made provision for setting up soil testing laboratories (STLs) in the country. The ICAR has also proposed setting up of soil testing facilities in 156 more Krishi Vigyan Kendras (KVKs) during Twelfth Plan.

Statement

State/Union Territorry-wise number of soil testing laboratories in the country

State/Union Territories	Under State Govt. and Fertilizer Industries	Under Krishi Vigyan Kendras (KVKs)	Total
1	2	3	4
Andaman and Nicobar Islands	2	01	3
Andhra Pradesh	118	18	136
Arunachal Pradesh	6	02	8
Assam	11	10	21
Bihar	39	24	63
Chhattisgarh	9	05	14
Delhi	1	-	1
Goa	2	01	3
Gujarat	130	19	149
Haryana	34	15	49
Himachal Pradesh	15	11	26
Jammu and Kashmir	20	09	29
Jharkhand	8	16	24
Karnataka	28	24	52
Kerala	24	13	37

1	2	3	4
Lakshadweep	-	01	1
Madhya Pradesh	78	29	107
Maharashtra	36	30	66
Manipur	5	03	8
Meghalaya	6	01	7
Mizoram	6	03	9
Nagaland	3	02	5
Odisha	11	14	25
Puducherry	1	01	2
Punjab	70	15	85
Rajasthan	48	28	76
Sikkim	4	02	6
Tamil Nadu	48	27	75
Tripura	6	02	8
Uttarakhand	15	44	59
Uttar Pradesh	283	06	289
West Bengal	20	13	33
TOTAL	1087	389	1476

Implementation of NHM in Jammu and Kashmir

2813. SHRI G. N. RATANPURI: Will the Minister of AGRICULTURE be pleased to state:

(a) the details of projects undertaken, progress on these projects and amount spent so far under National Horticulture Mission (NHM), State-wise;

(b) the details of fiscal and physical achievements of National Horticulture Mission in Jammu and Kashmir, project-wise;