(a) whether it is a fact that Government can save up to 25 metric tonne of foodgrains, about 10 per cent of the total production, if farmers adopt proper post-harvest management practices with cleaning and grading under post-harvest measures; and

(b) if so, the details thereof and the steps being taken in this regard in consultation with State Governments?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (DR. SANJEEV KUMAR BALYAN): (a) The Central Institute of Post-Harvest Engineering and Technology (CIPHET), Indian Council Of Agricultural Research (ICAR) in its study of 2010 on quantitative harvest and post-harvest losses of major crops and livestock produce considered various operations such as harvesting, collection, threshing, grading/sorting, winnowing/cleaning, drying, packaging, transportation and storage, depending upon the commodity and estimated 3.9-6% losses in foodgrains due to improper post-harvest management practices.

(b) This Ministry has initiated a number of steps towards improving post-harvest management practices including cleaning and grading viz. (i) Promotion of cleaning, sorting and grading of foodgrains at producer's level as per the grade standards formulated and notified after consultations with stakeholders including States and through provision of subsidy for creation/strengthening of post-harvest infrastructure including storage and other post-harvest infrastructure and capacity building under the Integrated Scheme for Agriculture Marketing (ISAM), (ii) The Ministry also advocates reforms in agricultural marketing sector so that private sector is encouraged to invest in post-harvest infrastructure nearer to farmers' field; (iii) The Indian Council of Agricultural Research (ICAR) and State Agricultural Universities have also developed a number of post-harvest equipment and technologies which help in checking post-harvest losses. They also organize relevant trainings.

Soil Health Card

- 391. DR. CHANDAN MITRA: Will the Minister of AGRICULTURE be pleased to state:
- (a) whether Government proposes to provide 'Soil Health Card' to all farmers in the country;
 - (b) if so, the details thereof; and

(c) the fresh steps taken by Government to improve productivity of farm lands in the country through judicious use of fertilizers and water?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (DR. SANJEEV KUMAR BALYAN): (a) and (b) Soil Health needs to be assessed at regular intervals so as to ensure that farmers apply the required amount of nutrients to their crops. Accordingly, distribution of Soil Health Cards is a continuous and dynamic exercise carried out by the State Governments. Central Government provides assistance to State Governments for setting up Soil Testing Laboratories for issuing Soil Health Cards to farmers. State Governments have adopted innovative practices like involvement of agricultural students, NGOs and private sector in soil testing, determining average soil health of villages, etc., to issue Soil Health Cards.

(c) Government has taken up Management of Soil Health and Fertility under National Mission for Sustainable Agriculture to promote soil test based balanced and judicious use of fertilizers. The scheme provides assistance for setting up new static/mobile soil testing laboratories (STLs), strengthening of existing STLs, training of STL Staff/ extension officers/ farmers, field demonstrations on balanced use of fertilizers etc.

For judicious use of fertilisers, Indian Council of Agriculture Research (ICAR) advocates split application and placement of fertilisers, use of slow releasing N-fertilisers and nitrification inhibitors, growing leguminous crops and use of Resource Conservation Technologies. ICAR has developed technologies for preparation of enriched / vermi compost from various organic wastes, developed improved strains of biofertilisers specific to different crops and soil types, and prepared geo-referenced soil fertility maps of 171 districts which are useful in monitoring soil fertility and fertiliser recommendations for balanced nutrient application.

Government has launched Mission for Integrated Development of Horticulture (MIDH) from 2014-15, wherein a component of integrated area expansion has been included for enabling farmers to take up area expansion activities along with drip irrigation. Assistance is also extended for creation of water resources that is community and individual tanks.

Apart from above, ICAR provides technology support for enhancing irrigation efficiency through laser levelling, optimal basin sizes and shift to micro irrigation techniques, optimal irrigation scheduling, augmenting water supplies through rain water harvesting for supplementary irrigation, etc.