

GOVERNMENT OF INDIA
MINISTRY OF AGRICULTURE AND FARMERS WELFARE
DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE

RAJYA SABHA
UNSTARRED QUESTION NO. 1929
TO BE ANSWERED ON THE 17/03/2023

AI SOLUTION TO IMPROVE SOIL HEALTH

1929. SHRI S NIRANJAN REDDY:

Will the Minister of AGRICULTURE & FARMERS WELFARE be pleased to state:

- (a) whether Artificial Intelligence (AI) solutions integrated with data signals from remote satellites and local image capture of the farms, have made it possible for farmers to take immediate actions to restore soil health;
- (b) the steps taken by Government to promote such solutions in the Indian agricultural sector; and
- (c) whether Government is presently studying and other Artificial Intelligence based solutions for improving soil health in India, if so, the details thereof?

ANSWER

MINISTER OF AGRICULTURE AND FARMERS WELFARE

(SHRI NARENDRA SINGH TOMAR)

(a) to (c): Yes Sir, Remote sensing data is used with sampled field soil fertility data alongwith crop attribute information for prediction of soil health attributes. Artificial Intelligence is also being used to deduce the soil health data in a scientific manner based on algorithm. Research and Development is focusing on promotion of such solutions so that it becomes operational and starts providing useable data to farmer for informed decision. AI based prediction models are developed for soil fertility assessment at laboratory and field condition using both imaging and non-imaging spectrometry with limited accuracy. Digital soil mapping has been initiated at pilot scale for soil health assessment at spatio-temporal scale using remote sensing and satellite derived attributes of soil properties at sampled locations.
