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

LOK SABHA
STARRED QUESTION NO. 69
TO BE ANSWERED ON 7th FEBRUARY, 2023

EFFECTS OF LAND DEGERADATION

*69. SHRI CHANDRA SEKHAR BELLANA
SHRI ADALA PRABHAKARA REDDY

Will the Minister of AGRICULTURE AND FARMERS WELFARE कृषि एवं किसान कल्याण मंत्री be pleased to state:

(a) Whether the problem of land degradation requires high input use from farmers and is leading to declining profit;

(b) If so, whether the Government is compensating the added cost to the farmers; and

(c) If so, the details thereof?

ANSWER

MINISTER OF AGRICULTURE AND FARMERS WELFARE

कृषि एवं किसान कल्याण मंत्री (SHRI NARENDRA SINGH TOMAR)

(a) to (c): A statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PART (a) to (c) OF LOK SABHA STARRED QUESTION NO. 69 DUE FOR ANSWER ON 07.02.2023 REGARDING EFFECTS OF LAND DEGERADATION.

(a) to (c): As per the Seventh Schedule of the Constitution of India, 'Land' comes under the purview of State Governments. However, the Government supports and supplements the efforts of State Governments through its various programmes/schemes which help to reduce land degradation process and in turn increase agricultural production through sustainable means.

In India 104.2 million ha. of arable land is affected by different kinds of land degradation, of which 85.7 million ha. is affected by wind and water erosion, 17.5 million ha. by chemical degradation and 1.1 million ha. by physical degradation. In order to prevent and manage land degradation and improve productivity of degraded land, the Government has taken effective measures as below;

I. i. Indian Council of Agricultural Research (ICAR) has developed specific technologies for soil & water conservation, watershed management interventions, soil reclamation measures for saline, alkali, waterlogged and acid soils and selection of suitable crop including agroforestry interventions.

ii. Indian Institute of Soil and Water Conservation (IISWC) has developed several location specific bio-engineering measures to check soil erosion due to run-off of rainwater, which are being promoted through various participatory watershed management programmes.

iii. Central Arid Zone Research Institute, Jodhpur has developed sand dune stabilization and shelter belt technology to check wind erosion.

iv. Central Soil Salinity Research Institute, Karnal and All India Coordinated Research Project (AICRP) on Salt Affected Soils has developed land reclamation technology- sub-surface drainage, bio-drainage, agroforestry interventions and salt tolerant crop varieties to improve the productivity of saline, sodic and waterlogged soils in the country. Similarly, liming @ 2-4 q/ha in furrow along with integrated nutrient management has been recommended to raise the productivity of acid soils. The Indian Council of Agricultural Research (ICAR)-Central Soil Salinity Research Institute, Karnal is also providing technical assistance as and when required for the sub-surface drainage. ICAR has also developed 37 agroforestry models for different agro-climatic zones of the country for resource conservation, wasteland

management, enhancing farm profitability and risk management.

v. To sustain the productivity of degraded lands under climate change, ICAR has developed resilient varieties in different crops tolerant to climatic stresses to improve the food grain production in the face of changing climate. Since 2014, a total of 2122 varieties have been released out of which 1752 are climate resilient varieties which includes 400 abiotic stress tolerant varieties and 1352 are biotic stress tolerant. Sixty eight location-specific climate resilient technologies have been developed and popularized for wider adoption among the farming communities.

II. National Mission on Sustainable Agriculture (NMSA) is one of the Missions within the National Action Plan on Climate Change (NAPCC) launched by Ministry of Agriculture and Farmers Welfare which aims to evolve and implement strategies to make Indian agriculture more resilient. NMSA also addresses the problem of land degradation. NMSA was approved for three major components namely Rainfed Area Development (RAD); On Farm Water Management (OFWM); and Soil Health Management (SHM). In addition to aforementioned programmes Sub Mission on Agroforestry (SMAF) and Restructured National Bamboo Mission (NBM) have been brought under NMSA. Also, under the Rashtriya Krishi Vikas Yojana (RKVY) a component on Reclamation of Problem Soil is operational from 2016-17 which is dedicated to restoration of land leading to livelihood security.

Through Integrated Nutrient Management (INM) efforts have been made to restore the soil fertility of the degraded lands by balanced use of chemical fertilizers. Under Soil Health Card Scheme 10.74 crore grid based soil health cards have been distributed during cycle-I of the scheme (2015 to 2017). During Cycle-II (2017 to 2019), 11.97 crore grid based soil health cards have been distributed. Paramparagat Krishi Vikas Yojana (PKVY) has been implemented since 2015-16 for the first time in the country to promote chemical free organic farming in cluster approach with Participatory Guarantee System (PGS) certification.

III. The Integrated Watershed Management Programme (IWMP) was amalgamated as one of the components of PMKSY in 2015-16 and named as the Watershed Development Component of the Pradhan Mantri Krishi Sinchayee Yojana (WDC-PMKSY). Under WDC-PMKSY 1.0, Department of Land Resources provided

Central assistance for 6382 watershed development projects in 28 States and released Rs.19926.67 crore as Central share. The extended project period of WDC-PMKSY 1.0 got over on 31.03.2022. The activities undertaken, inter alia, include ridge area treatment, drainage line treatment, soil and moisture conservation, rainwater harvesting, nursery raising, pasture development, livelihoods for asset less persons etc. Under WDC-PMKSY 1.0, as per information received from the States/UTs, since 2014-15 to 2021-22, approximately 7.64 lakh water harvesting structures have been created / rejuvenated. An additional area of about 16.41 lakh ha has been brought under protective irrigation. The number of farmers benefited is about 36.34 lakh during this period. Further, during 2018-19 to 2021-22, 1.62 lakh ha. has been brought under plantation (Horticulture/Afforestation) and 3.36 lakh ha culturable wasteland treated in all completed projects. Government of India has also approved continuation of WDC-PMKSY 2.0 with a physical target of 49.50 lakh ha of rainfed/degraded areas in December, 2021. Under WDC-PMKSY 2.0, Department has already sanctioned 1110 watershed projects to States/UTs covering an area of 49.43 lakh hectare with total project cost of Rs. 12109.96 crore (Central share Rs. 7864.25 crore).

IV. Further, Government supports construction of water harvesting and conservation works primarily through Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). Mission Amrit Sarovar launched as a part of celebration of Azadi ka Amrit Mahotsav with an objective to conserve water for future. The Mission is aimed at developing and rejuvenating 75 water bodies in each district of the country. As on date, 93970 sites have been identified and work has commenced on 55660 sites. The work has been completed on 29520 sites. In addition, large number of water bodies such as farm ponds, dug wells, check dams and community ponds (water harvesting & Fishery) have been created under the MGNREGS Scheme. A total of 64,09,852 water harvesting structures have been created so far under the scheme.

V. Under price support scheme, the Government announces Minimum Support Prices (MSP) for major agricultural commodities each year in both the crop seasons based on various factors including input cost. Thus any increase in input cost is factored in the MSP.

Although land degradation is understood to have its negative impact on food crops in terms of productivity, the negative impacts have been dealt with effectively

through various Government interventions. This is borne out by the fact that the food grains production has continuously increased in the country during last 5 years which can be seen in the below table.

(in million tonnes)

Year	2017-18	2018-19	2019-20	2020-21	2021-22
Production of food grains	285.01	285.21	297.50	310.74	315.72

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