

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

**RAJYA SABHA**  
**UNSTARRED QUESTION NO. -814**

TO BE ANSWERED ON 09/02/2024

**IN-SITU CROP RESIDUE MANAGEMENT**

814. Shri R. Girirajan:

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

- (a) whether the use of bio-decomposer technology and Cropping System Model (CSM) machinery as part of in-situ crop residue management has contributed to a reduction in the cases of stubble burning this year;
- (b) if so, the details thereof and if not, the reasons therefor;
- (c) whether the Central Government proposes to incentivise the State Governments by compensating them for the cost incurred whilst procuring the same;
- (d) whether Government possesses the details of the States that have procured these equipments; and
- (e) if so, the number of these equipments procured during the last three years?

**ANSWER**

MINISTER OF AGRICULTURE AND FARMERS WELFARE

(SHRI ARJUN MUNDA)

(a) to (e): Paddy stubble burning is practiced in the States of Punjab, Haryana and Uttar Pradesh to clear the fields for Rabi crop sowing. To support the efforts of the Governments of Punjab, Haryana, Uttar Pradesh and NCT of Delhi to address air pollution and to subsidize machinery required for management of crop residue, the Department of Agriculture & Farmers Welfare is implementing a Crop Residue Management Scheme from 2018-19. Under this scheme, the usage of machines such as Super Straw Management Systems, Happy Seeder, Super Seeder, Smart Seeder, Surface Seeder, Zero Till Seed cum Fertilizer Drill, Mulcher, Shrub Master/Rotary Slasher, Paddy Straw Chopper, Hydraulically Reversible Mould Board Plough, Crop Reapers and Reaper Binders is promoted for in-situ management of paddy straw and Balers & Straw Rakes are promoted for ex-situ management of paddy straw. Financial assistance @ 50% of the cost of machinery is provided to the farmers for purchase of these identified machinery and financial assistance @ 80% of the project cost is provided to the Rural Entrepreneurs (Rural youth and farmer as an entrepreneur), Cooperative Societies of Farmers, Self Help Groups (SHGs), Registered Farmers Societies, Farmer Producer Organizations (FPOs) and Panchayats for establishment of Custom Hiring Centres of crop residue management machinery.

With a view to enable efficient ex-situ management of paddy straw generated in these States, provisions have been made to establish pilot projects for paddy straw supply chain under the bilateral agreement of beneficiary/ aggregator (Farmers, Rural entrepreneurs, Cooperative Societies of farmers, Farmers Producer Organizations (FPOs) and Panchayats) and Industries utilizing the paddy straw. Financial assistance @ 65% on the capital cost of machinery costing up to Rs. 1.50 crores is provided by the Government. Industry as primary promoter of the project has to contribute 25% of the project cost and the balance 10% will be the contribution of beneficiary/aggregator. The intervention aims at establishing a robust supply chain of paddy straw for various end user industries in biomass power generation and biofuel sectors.

The scheme also promotes the usage of Bio-Decomposer (a microbial consortium of fungal species), which accelerates the in-situ decomposition of paddy straw. During 2023 season, the bio-decomposer was used by the States in an around 7.45 lakh hectares area

The State-wise release of funds and machines supplied under the scheme are indicated in below table:

State	Fund released till now (Rs. in Crores)	Number of Machines supplied
Punjab	1531.45	137407
Haryana	1006.71	89770
UP	713.67	68421
NCT of Delhi	6.05	247
ICAR and Others	75.29	--
<b>Total</b>	<b>3333.17</b>	<b>295845</b>

The satellite-based monitoring indicated that a total 42962 paddy residue burning events were detected in Punjab, Haryana and Uttar Pradesh. Though these various initiatives of in-situ and ex-situ management of paddy straw, the overall paddy stubble burning incidences in these States has been reduced by 24% in 2023 season as compared to last year.

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