

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

LOK SABHA
UNSTARRED QUESTION NO. 2225
TO BE ANSWERED ON THE 14TH MARCH 2023

AGRICULTURAL WASTAGE

2225. SHRI VISHNU DAYAL RAM:

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

- (a) whether it is true that our country generates around 500 million tonnes of farm waste per year;
- (b) if so, the details of the farm waste generated in the agricultural sector upto October, 2022, State-wise;
- (c) the details of an action plan to mitigate the tonnage of agricultural wastage in the country;
- (d) whether the Government is aware of the Indian Council of Agricultural Research (ICAR) recommendations for various technologies to mitigate agricultural wastage; and
- (e) if so, the details of those technologies adopted/ planning to adopt by the Government?

ANSWER

MINISTER OF AGRICULTURE AND FARMERS WELFARE

कृषि एवं किसान कल्याण मंत्री (SHRI NARENDRA SINGH TOMAR)

(a) & (b): Agricultural waste or biomass is produced as a result of normal crop production processes. As per the study report of 2021 of the Ministry of New and Renewable Energy (MNRE), the State-wise data of calculated total available biomass potential, biomass utilization and surplus biomass is given in **Annexure-I**.

(c) to (e): For the effective management of paddy straw in the States of Punjab, Haryana, Uttar Pradesh and NCT of Delhi to address air pollution, a scheme on 'Promotion of Agricultural Mechanization for In-Situ Management of Crop Residue in the States of Punjab, Haryana, Uttar Pradesh and NCT of Delhi' is implemented from 2018-19. The scheme promotes the usage machines and equipments recommended by Indian Council of Agricultural Research (ICAR) for management of crop residues such as Super Straw Management Systems, Happy Seeder, Super Seeder, Smart 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 for in-situ management of crop residue and Balers & Straw Rakes for collection of straw for further ex-situ utilization. The Indian Council of Agricultural Research has developed Pusabio-decomposer, a microbial consortium of fungal species for rapid decomposition of paddy straw in the field itself and in the year 2022, the decomposer has been used by the States in an around 7.45 lakh hectare area. The ICAR have also come out with number of technologies in the form of value-added products, processes or processing equipment that can be successfully used to convert agricultural waste into wealth.

The Government has taken steps to encourage production of cellulosic ethanol and Compressed Biogas (CBG) from agricultural wastes and residues that would otherwise be burnt. Ministry of Petroleum and Natural Gas (MoPNG) has approved National Policy on Biofuels- 2018 and also launched 'Sustainable Alternative towards Affordable Transportation' (SATAT) which promote setting up of CBG projects using biomass as raw material. Oil Marketing Companies are setting up 2G ethanol plants based on various feed stocks including paddy straw in the country. Ministry of Power has issued revised policy on biomass utilization for power generation through co-firing in coal based power plants which mandates the use of 5-7% biomass pellets made primarily of agro-residue along with coal in thermal power plants. Central Pollution Control Board (CPCB) has framed guidelines for providing one-time financial assistance for establishment of paddy straw based palletization and torrefaction plants. The MNRE is implementing Biomass Programme with the broader objectives of promoting technologies for optimum use of country's biomass resources.

Statement referred in reply to Lok Sabha Un-Starred Question No. 2225 due for reply on 14th March 2023.

States	Total Biomass Generation (Million Tonnes)	Biomass Utilization (Million Tonnes)	Surplus biomass potential (Million Tonnes)
A & N Islands	0.20	0.07	0.13
Andhra Pradesh	40.01	22.92	17.09
Arunachal Pradesh	0.75	0.58	0.17
Assam	12.57	10.03	2.54
Bihar	32.57	24.59	7.98
Chhattisgarh	12.99	10.34	2.65
Goa	0.45	0.22	0.23
Gujarat	50.24	28.50	21.74
Haryana	36.24	25.33	10.91
Himachal Pradesh	2.74	2.17	0.57
Jammu & Kashmir	3.24	2.59	0.65
Jharkhand	5.31	4.11	1.20
Karnataka	34.09	20.05	14.05
Kerala	8.58	2.54	6.04
Madhya Pradesh	70.23	50.30	19.93
Maharashtra	52.54	31.05	21.49
Manipur	1.14	0.66	0.48
Meghalaya	1.37	0.81	0.56
Mizoram	0.13	0.11	0.02
Nagaland	1.37	0.94	0.44
Odisha	11.84	9.61	2.23
Puducherry	0.12	0.08	0.04
Punjab	53.00	30.75	22.25
Rajasthan	59.50	49.29	10.21
Sikkim	0.23	0.19	0.04
Tamil Nadu	52.14	39.92	12.22
Telangana	33.62	19.86	13.76
Tripura	1.41	1.16	0.25
Uttar Pradesh	124.69	103.09	21.60
Uttarakhand	3.55	2.83	0.72
West Bengal	47.51	31.23	16.28
Dadra & Nagar Haveli and Daman & Diu	0.07	0.06	0.01
Total	754.44	525.98	228.48
