Crop Residue Management guidelines

Published On: 02-07-2023

Why is in news? Government revises the Crop Residue Management guidelines enabling efficient ex-situ management of paddy straw generated in the States of Punjab, Haryana, UP and Delhi

The Government has revised the Crop Residue Management guidelines **enabling efficient ex-situ management of paddy straw** generated in the **States of Punjab, Haryana, UP and Delhi**.

As per the revised guidelines, **techno-commercial pilot projects for Paddy Straw Supply Chain** will be established under the bilateral agreement between the Beneficiary/Aggregator (Farmers, rural entrepreneurs, Cooperative Societies of Farmers, Farmers Producer Organizations (FPOs) and Panchayats) and Industries utilizing the paddy straw.

The Government shall **provide financial assistance on the capital cost of machinery and equipment**.

The required working capital may be **financed either by the Industry and Beneficiary jointly or utilizing** the Agriculture Infrastructure Fund (AIF), NABARD Financial or Financing from the Financial Institutions by the beneficiary.

The land for storage of the collected paddy straw will be arranged and prepared by the beneficiary as may be guided by the end use industry.

Project proposal based financial assistance will be extended for machines and equipments such as Higher HP Tractor, Cutters, Tedder, Medium to Large Balers, Rakers, Loaders, Grabbers and Telehandlers which are essentially required for establishment of paddy straw supply chain.

State Governments shall approve these projects through project sanctioning committee.

Government (jointly by Central and State Governments) will **provide financial support of @ 65% of the project cost**, **Industry as primary promoter of the project will contribute 25%** and will act as the Primary consumer of the feedstock collected and Farmer or group of Farmers or Rural Entrepreneurs or Cooperative Societies of Farmers or Farmers Producer Organizations (FPOs), or Panchayats will be the direct Beneficiary of the project and will contribute the balance 10%.

Outcomes:

The initiative will **supplement the efforts of paddy straw management through in-situ options**

During the three-year tenure of the interventions, **1.5 million metric tonnes of surplus paddy straw are expected to be collected** which would otherwise have been burnt in fields.

About **333 biomass collection depots** of capacity 4500 MT will be built in the States of Punjab, Haryana, Uttar Pradesh and Madhya Pradesh.

Air pollution caused by stubble burning will **be considerably reduced**.

It **would generate employment opportunities** of about 9,00,000 man days.

The interventions will **encourage a robust supply chain management of paddy straw** which shall **further help in making paddy straw available for various end uses** i.e., power generation, heat generation, bio- CNG, etc. by Power/bio-CNG/bio-ethanol producers

Establishment of supply chain **would result in new investments in Biomass to biofuel and energy sectors**.

Crop residues:

Crop residues **are waste materials generated by agriculture**. The two types are:

Field residues are **materials left in an agricultural field or orchard after the crop has been harvested**.

These residues include stalks and stubble (stems), leaves and seed pods. Good management of field residues can increase efficiency of irrigation and control of erosion. The residue can be ploughed directly into the ground, or burned first.

In contrast, no-till, strip-till or reduced-till agriculture practices are carried out to maximize crop residue cover. Simple line-transect measurements can be used to estimate residue coverage.

Process residues are **materials left after the crop is processed into a usable resource**.

These residues include husks, seeds, bagasse, molasses and roots. They can be used as animal fodder and soil amendment, fertilizers and in manufacturing.

Economic value:

Biofertilizer: Most discussions about the economic value of crop residues focus on the equivalent fertilizer cost of the nutrients within. Although crop residues contain both macronutrients and micronutrients, only macronutrients such as nitrogen, phosphorus, potassium and sulfur are economically significant.

Use in agronomic practice as strawbed to produce crops (e.g. in strawberry cultivation). They are widely used in mushroom cultivation. The residues after mushroom cultivation can act as good substrate for composting and biofertilizer applications.

Particle board: Recent developments suggest potential use of crop residues in the manufacture of particle board.