

# Central coordinating system vital to handle paddy stubble: Study

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CHANDIGARH: India needs a central coordinating mechanism for paddy stubble management and crop diversification with adequate resources, clear assignment of responsibilities between national and sub-national agencies to counter the ill-effects of crop stubble burning during Covid-19 pandemic.

This has been recommended by a study conducted by National Institute of Public Finance and Policy senior researchers Rita Pandey and Anuja Malhotra and The Energy and Resources Institute's Shailly Kedia. The study was part of the policy series by Punjabi University's centre for development economics and innovation studies.

Emphasising on the need for all stakeholders, including government, industry and the civil society to shift their strategy from reactive to proactive, the study points out that the national programme on crop diversification does not have clear provisions on outreach activities to sensitise farmers about alternate crop options.

Similarly, there is insufficient convergence with other programmes such as the National Rural Employment Guarantee Scheme, National Rural Livelihood Mission, and agro-enterprise related schemes which could help in management of paddy stubble or crop diversification.

Rural Punjab spends ₹7.6cr annually to treat ailments

The study says that people in rural Punjab spend more than Rs 7.6 crore every year on treatment for ailments caused by stubble burning.

It is estimated that 20 million tonnes of rice stubble is produced every year in Punjab, out of which 80% is burnt on farms. Cost of air pollution due to stubble burning in India is estimated to be US \$30 billion annually.

Stubble burning emits particulate matter (PM 2.5), which is the most adverse for human health since the particles can get trapped inside the lungs and raise the lung cancer risk by 36%.

Burning one tonne of rice (paddy stubble) accounts for a loss of nitrogen (5.5kg), phosphorus (2.3kg), potassium (25kg), and sulphur (1.2kg) in the soil. Moreover, the heat from burning crop residue kills critical bacterial and fungal populations in the soil, apart from organic carbon.

#### Implementation Issues

The research found that the unavailability of crop residue management (CRM) machines has been a key issue in mitigating paddy stubble burning. In 2019, despite a sanction of 22,854 machines, only 14,625 were available for use. The in-situ management machines are still unaffordable to many farmers despite subsidy provisions.

Small farmers cannot afford machines despite subsidy

Happy seeder costs Rs 1.50 lakh and requires a 65-horsepower tractor. Small farmers cannot afford to buy the machinery, even with a subsidy of 50% at current rates. Even though the central sector scheme (CSS) provides 80% subsidy to cooperative societies to rent out machines to farmers, most (cooperative societies) did not have funds to buy such machinery even on subsidy, says the study.

#### Diversification Issues

“Crop diversification package should be a mix of policy measures, encouragement of agrobusiness enterprises possibly under Aatmanirbhar Bharat Abhiyan scheme, awareness campaigns for farmers explaining the importance of the scheme for them and what it offers, economic incentives such as minimum support prices for alternative crops, along with infrastructure support like agricultural inputs for identified alternative crops,” reads the study. There is a need for a detailed study involving all stakeholders to understand slow progress towards crop diversification in spite of regulatory policy nudges and fiscal policy incentives announced by the central as well as state governments.