Gauthans in Chhattisgarh - Stubble Burning and Pollution

What is the issue?

- Pollution caused by burning of *parali* (crop residue) is an unprecedented crisis causing pollution, especially in Delhi.
- In this context, here is how the stubble could be put to gainful use, citing the Chhattisgarh's gauthans model as an example.

How is stubble burning affecting Delhi?

- Farmers in Haryana and Punjab burn up to 35 million tonnes of parali.
- This is responsible for significant percentage of Delhi-NCR's air pollution levels.
- Estimatedly, crop residue burning released 149 million tonnes of CO2, 9 million tonnes of carbon monoxide, 0.25 million tonnes of suphur oxides and 1.28 million tonnes of particulate matter.
- Pollution is choking Delhi; there is a 50% rise in respiratory illnesses, be it COPD (Chronic Obstructive Pulmonary Disease) or asthma cases.
- Besides this, there is also loss in soil fertility and a rise in incidents of cancer in Punjab and Haryana.

What necessitates stubble burning?

- Farmers in Haryana and Punjab have to move to the next winter crop in a very short interval, following the Rabi crop sowing.
- If they are late, due to short winters these days, they might face considerable losses.
- If parali is left in the field, pests like termites may attack upcoming crop.
- So, already being in an economically-precarious situation, farmers go for the cheapest option for stubble disposal i.e. stubble burning.

How could parali be used?

- Agriculture is a regenerative process i.e. one which recycles.
- So, what is needed is to utilise every product in the process and return it to the soil in one form or another.
- From 35 million tonnes of parali, 21 million tonnes of high-grade organic fertiliser can be derived.
- The total amount of nitrogen, phosphorous, potassium and sulphur in the 23

million tonnes of parali annually burnt in Northwest India is about 7 lakh tonnes.
- This is valued at Rs 1,000 crore.
- This apart, organic carbon is also destroyed during stubble burning.
- Thus, parali offers an important source for meeting the nutrient requirements of crops and improving soil health.
- These nutrients also reduce the risk of cancers in Punjab by reducing the levels of carcinogens in soil.
- However, farmers cannot do this alone without state support.

How is Chhattisgarh's gauthans model an example?

- Chhattisgarh has already undertaken the above innovative experiment by setting up gauthans.
- A gauthan is a dedicated five-acre plot, held in common by each village.
- There, all the unused parali (paira in Chhattisgarhi) is collected through parali daan (people's donations).
- It is then converted into organic fertiliser by rural youth.
- This provides them a living.
- The state government supports only the transportation of parali from the farm to the nearest gauthan.
- The state has successfully developed 2,000 gauthans under this model.

What should be done?

- The state needs to step in and engage already-existing mechanisms like the MGNREGA for achieving the above.
- The Centre needs to allow states to include activities like harvesting and composting in MGNREGA.
- Parali can be mixed with cow dung and few natural enzymes under MGNREGA to generate high-grade compost.
- A collective intervention using traditional wisdom and local resources, facilitated by sound administrative support can upturn the national problem of stubble burning and pollution.

Source: Indian Express

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