

1. Wealth From the Stubble

Context:

- At times, situations press us into a corner where we need to face the challenges head on and reach a long-term solution. Pollution caused by burning of crop residue is one such unprecedented crisis.

Why it is a Serious Problem?

- We must act not only because it is choking Delhi or there is a 50 per cent rise in respiratory illnesses, be it COPD or asthma cases, in the National Capital Region (NCR) area, but also because we are losing soil fertility and there is a rise in incidents of cancer in Punjab and Haryana.
- Farmers in Haryana and Punjab burn up to 35 million tonnes of crop residue, which is responsible for significant percentage of Delhi-NCR's air pollution levels.
- One study estimates that crop residue burning released 149 million tonnes of carbon dioxide, nine million tonnes of carbon monoxide, 0.25 million tonnes of sulphur oxides and 1.28 million tonnes of particulate matter.

Background of this Issue:

- 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 crop residue is left in the field, pests like termites may attack upcoming crop.
- Already in an economically-precarious situation, farmers go for the cheapest option for stubble disposal — burning. A farmer knows about the pollution crisis. But we also need to know his problems — pests, markets and soil fertility.

Waste to Wealth:

- Agriculture is a regenerative process, one which recycles. What we need is to utilise every product in the process and return it to the soil in one form or another.
- From 35 million tonnes of crop residue, we can obtain 21 million tonnes of high-grade organic fertiliser. This apart, organic carbon is also destroyed during stubble burning. Thus, crop residue 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.

Needed government Intervention:

- Farmers cannot do this alone. The state needs to step in and engage already-existing mechanisms like the MGNREGA for this purpose. To do this, the Centre needs to allow states to include activities like harvesting and composting in MGNREGA.
- This has been a longstanding demand of many states. Crop residue can be mixed with cow dung and few natural enzymes under MGNREGA to generate high-grade compost, and also reduce air pollution in North India.

Chattisgarh Model:

- Chattisgarh undertaken the innovative experiment by setting up gauthans. A gauthan is a dedicated five-acre plot, held in common by each village, where all the unused crop residue is collected through people's donations and is converted into organic fertiliser by rural youth.
- This provides them a living. Government supports only the transportation of crop residue from the farm to the nearest gauthan. The state has successfully developed 2,000 gauthans.
- This model involves an integrated regenerative rural development model of narwa (rivulet regeneration), garuwa (cattle conservation), ghuruwa (composting) and baari (kitchen garden) through a participatory process using MGNREGA.

Way Forward:

- Since the Supreme Court has taken a cognisance of the pollution crisis, it is high time to offer the best possible solutions.
- Supreme Court to constitute a committee consisting of economists, agricultural experts, farmer delegates and bureaucrats to evaluate the crop residue burning crisis and explore the possibilities of expanding schemes like the MGNREGA to harvesting and composting.
- A collective intervention using traditional wisdom and local resources and facilitated by sound administrative support can upturn this national problem.