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- 2) Identify the challenges associated with stubble burning and provide ways to convert the challenges of stubble burning into opportunities. (250 words)

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Stubble burning is the method of burning the paddy residue to sow the wheat in the north-western region. Though stubble burning is banned, still some farmers in states like Haryana, Punjab and Uttar Pradesh practising it.

Challenges in stubble burning

1) Increase pollution: Stubble burning releases toxic substances like CH_4 (methane), CO (Carbon mono-oxide) and other greenhouse gases.

i) It poses threat to Delhi people by increasing pollution level.

2) Soil Fertility: Through stubble burning farmers unknowingly deplete their soil fertility.

3) Heat penetration: Stubble burning increases the soil temperature which directly affect the good microbes.

i) These microbes fix nitrogen and carbon in the atmosphere for the growth of plants.

Opportunities available

1) Pellets: These stubbles $\xrightarrow{\text{drying}}$ pellets and these pellets mixed with coal can be used in thermal power plants.

→ This reduces stubble and saves coal.

2) Bio-decomposers: We can use bio-decomposers in the shorter period which also acts as fertilizer.

Ex: PUSA bio-decomposer.

3) Animal Feeder: Increase the cattle feed and reduce the residues.

4) Manure: Using Turbo Happy Seeder we can plough residues and sow seeds.

5) Chattisgarh model: Gashan method used in Chattisgarh and made prepared manure from residues.

Way Forward :

We can't think for disposing the residues the farmer needs ₹ 5000 - 6000 per acre, central and state governments subsidy cost only ₹ 2500. By increasing subsidy we can eliminate stubble burning.

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