Status of Straw Management in Nepal

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Crop Residue Management in South Asia:

Advancing Subregional Cooperation for Sustainable, Climate-smart and Integrated Management of Crop Residues

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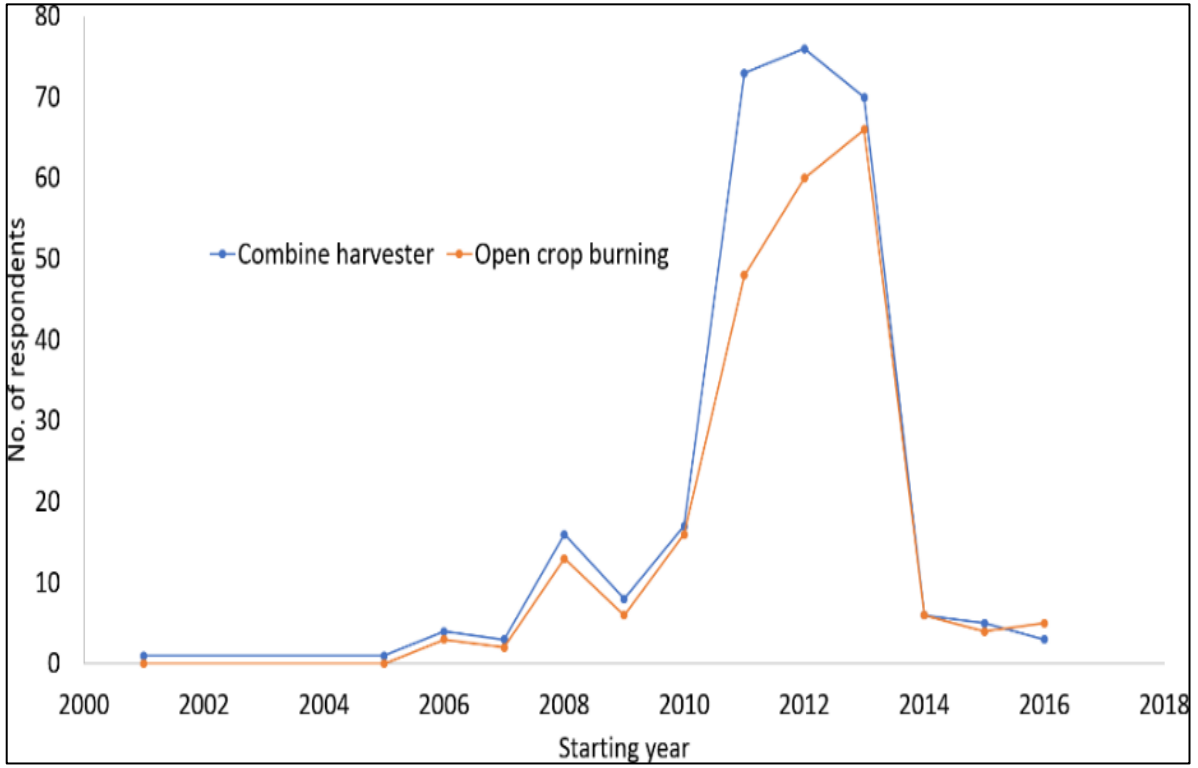
Crop residue burning in Nepal

- Unaware of the negative effects of burning
- Short turnaround time between crops
- Labour Migration - Labour intensive hence costlier collection - Time and Money Saving
- Changes in livestock rearing - Commercial rearing - alternate feed
- Use of combine harvesters - 54% more likely to burn-due to leaving long stubble
- Lower market value for crop residue
- Access to suitable techniques of integrated straw management (ISM)-In-situ as well as Ex-situ



Source: Bajracharya et al., 2021

Examples of best practices in Nepal

In-situ Straw management	Ex-situ Straw management
Straw used as fertilizer by direct retuning to the soil ▪ **Soil cover with straw**: Happy/Super seeder, Zero-till seed cum fertilizer drill ▪ **Straw incorporated into soil**: Roto till (power tiller) Seed cum fertilizer drills, Rotary Mulcher + Ploughing, Direct Ploughing	▪**Straw Collecting Machines:** Straw/hay baling, Straw reapers ▪**Straw used as fertilizer** ▪**Straw used as base materials:** Mushroom cultivation, Cooking and heating fuel, Bedding material ▪**Straw used as fodder:** chopping/chaffing, Straw treated with urea, Straw blocks, ▪**Straw craft production for handicraft and cottage industries**

Action plan for “no burn” campaign to stop Crop Residue Open Burning (CROB)

Short Term – To be completed by 5 years period

- ✓Baseline survey: status, availability and utilization
- ✓Advocate to policy makers: importance of straw management and consequences of CROB
- ✓Knowledge transfer in various straw management techniques
- ✓Change service charge of combine harvester hiring from an area to a time-based approach
- ✓Pilot best practice in-situ and ex-situ ISM and replicate learning
- ✓Provide incentives for not burning
- ✓Include and prioritize crop residue utilization in upcoming "Feed and Fodder Policy" of federal government.
- ✓Enforce requirement on importing of straw management machines along with CH

Action plan for “no burn” campaign to stop Crop Residue Open Burning (CROB)

Medium Term: To be completed by 8 years period

✓Validate and adopt the best practices from the neighbouring countries

✓Develop and implement training, demonstration, showcase etc.

✓Provide subsidies for ISM technologies and machines, no direct subsidy to CH

✓Raise awareness of the impact of CROB on human, environment and soil health

✓Promote practice of conservation agriculture (CA)

Long Term: Ongoing 8+ years period (continue till CROB negligible)

✓Start **"no burn"** campaign to stop CROB

✓Include ISM in the policy and strategy of federal and provincial government

✓Plan that 75% of crop residue are return back to the field **‘#SaveSoil’** campaign

Recommendations relevant for other countries or at subregional level

- Start **"no burn"** campaign to stop CROB
- Baseline survey: status, availability and utilization
- Validate and adopt the best practices from the neighbouring countries
- Provide incentives for not burning
- Enforce requirement on using straw management machines along with CH
- Provide subsidy for ISM technology and machine, no direct subsidy to CH
- Promote practice of conservation agriculture (CA)
- Plan that 75% of crop residue are return back to the field **‘#SaveSoil’** campaign

Thank you

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