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

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