Review of farm level post-harvest losses in sub-Saharan Africa

Huib Hengsdijk & Sjaak Conijn

Background

The Food and Agriculture Organization (FAO) estimates that 70% more food needs to be available by 2050 given projected changes in population, income, and diets. Reducing food losses could be a major contribution to the anticipated higher global food demand and to improving local food security. However, recent and systematic evidence is lacking on the magnitude of post-harvest losses at farm level in developing countries.

Objective

• Review of the literature on post-harvest losses to quantify food losses in post-harvest systems of smallholder farms in sub-Saharan Africa (SSA).
• Literature published after 1990 with quantitative dry weight loss data of major cereals and roots/tubers.

Post-harvest system of smallholder farms

Results

Characteristics of the reviewed literature

In total 47 unique publications satisfied our selection criteria, i.e. 37 dealt with post-harvest losses in cereals, 13 with roots/tubers and 3 with both crop groups. Except for one, all publications dealt with on-farm storage losses. The data addressed 19 different countries in SSA.

<table>
<thead>
<tr>
<th>Total publications</th>
<th>Cereals</th>
<th>Roots / tubers</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of publications in ISI Web of knowledge</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>No. of publications with specified measurement/estimation method</td>
<td>21</td>
<td>8</td>
</tr>
<tr>
<td>No. of publications with actual farm losses</td>
<td>22</td>
<td>5</td>
</tr>
<tr>
<td>No. of publications with experimental farm losses</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>No. of publications with both actual and experimental farm losses</td>
<td>1</td>
<td>1</td>
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</tbody>
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Discussion

• Focus on single loss factors in storage studies potentially underestimate total on-farm food losses.
• Not clear how possible changes in moisture content of food during storage affected measured weight losses.
• To assess total storage loss better understanding is required of the storage management of farmers and their practices to reduce loss.

Conclusions

• Little recent quantitative information is available on the magnitude of food losses at farm level. Only for storage losses limited and partial information is available.
• More quantitative information is required on the losses that incur during all farm operations to identify cost-effective interventions aimed at the reduction of food losses at farm level.

Acknowledgements

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