



MAINSTREAMING FOOD LOSS REDUCTION INITIATIVES MAINSTREAMING

## MAINSTREAMING FOOD LOSS REDUCTION INITIATIVES FOR SMALLHOLDERS IN FOOD DEFICIT AREAS

# FOOD LOSS ANALYSIS FOR IDENTIFICATION OF CRITICAL LOSS POINTS AND SOLUTIONS OF SORGHUM, MAIZE AND COWPEA VALUE CHAINS IN BURKINA FASO

### BACKGROUND

The RBA Project is jointly implemented by the Food and Agriculture Organization of the United Nations (FAO), the International Fund for Agricultural Development (IFAD) and the World Food Programme (WFP). Funded by the Government of Switzerland, the Project seeks to improve food security and income-generating opportunities through the reduction of post-harvest losses in supported grain and pulse value chains. The Project identified critical loss points, and supported the piloting of good practices and solutions to reduce post-harvest losses and improve handling and storage in the pilot countries Burkina Faso, Uganda and the Democratic Republic of the Congo (DRC). The Project will also support the development of regulatory frameworks covering policy, standards and norms to reduce food losses in food supply chains in each of the countries.



### SORGHUM

Along the supply chain selected in the region of Boucle du Mouhoun main critical loss points (CLP) are found at the steps of harvesting, transportation of the panicles to homestead, threshing, transport and storage at the wholesaler's place. **Indicative loss levels are reported as follows: 5.4%** at harvesting, **0.47%** during threshing/winnowing, **0.3%** during transportation and **0.02%** during farm storage (after five months). Sorghum is well preserved in the form of panicles up to two or three years in clay granaries. In the Boucle du Mouhoun region, annual losses are estimated at **16500 tons/year**, which is equivalent to about **USD 3.5 million/year** (year of reference 2015).

### METHODOLOGY APPLIED

The identification of critical loss points of the selected value chains was done applying the FAO methodology "Food Loss Analysis: Causes and Solutions, Case Studies in the Small-scale Agriculture and Fisheries Subsectors". It consists in 4 steps: screening, load tracking to estimate qualitative and quantitative losses along selected supply chains, survey and synthesis. This methodology allows to identify critical loss points (CLP) along the selected supply chains, the major causes of losses, appropriate, feasible and sustainable solutions (including on equipment and investments), best practices and reduction strategies.

## MAIZE

CLPs along the selected supply chains in the region Hauts-Bassins are the stages of harvesting, drying, shelling, storage at the producer's warehouse, transport to the wholesaler and milling (flour and semolina).

**Indicative loss levels are reported as follows:** 3.5% at harvesting, 5.6% during shelling, 2.7% after five months' storage at the producers' and 0.3% during the transportation to the wholesalers'. Losses have been estimated at 20% during processing of maize into flour; it mainly occurs during dehusking. Maize is very sensitive to the storage duration (increasing grain quality deterioration and high insect infestation).

In the Hauts-Bassins region, food losses are estimated at **71 500 tons per year**, which is equivalent to an economic loss of about **USD 20 million/year** (year of reference 2015).



**47500 tons per year**, which is equivalent to a value of **USD 26 million/year** (year of reference 2015).



## RECOMMENDATIONS

The below recommendations have been identified as solutions for reducing food losses along the selected grains studied in Burkina Faso.

- ▶ Promote hermetic storage techniques (bags, metal and/ or plastic silos, other containers of different volumes according to market availability, economic and technical accessibility for both men and women).
- ▶ Raise awareness on the importance of quantitative losses and their economic value at all levels as well as their impact on food availability
- ▶ Provide training on good harvesting and post-harvest systems management.
- ▶ Develop selected value chains by building stakeholder capacity to assess the feasibility and profitability of different possible solutions in their contexts and supporting microfinance and credit institutions to facilitate access to efficient equipment and facilities.
- ▶ Promote advocacy for quality control of all post-harvest equipment, including polypropylene woven bags at the national level.

- ▶ Raise awareness on the importance of capacity development, and, take into consideration the specific needs of both sexes in the promotion of post-harvest equipment, mainstreaming gender in the development of food loss reduction's policies.

## WOMEN' ROLES IN POST HARVEST ACTIVITIES

Gender relations are a primary component of the social and economic context which influences how women and men participate in and benefit from food value chain activities. Gender inequalities in access to and control over productive resources and participation to decision-making process are an underlying reason of the inefficiencies of food value chains and subsequently of food losses. By recognizing the link between gender and food losses, the FAO Methodology for Food Loss Analysis looks at the different roles played by women and men in Critical Loss Points, by collecting sex disaggregated data and identifying specific constraints and opportunities for women and men to reduce food losses. In Burkina Faso, the sorghum's shelling, delegated to men, is now done by tractors, while winnowing, a women's task, remains manual whatever the quantity. Several factors such as limited participation in decision making or access to grains have increased the risk for losses further. Granting women equal access to equipment, productive resource and decision making will help reducing losses

## COWPEA

CLPs along the selected supply chains in the region Nord are harvesting, drying, manual threshing/ pounding and farm storage. **Indicative loss levels are reported as follows:** 8.7% at harvesting, 1.1% during threshing/winnowing, and 35% after a five-month storage period for producers who do not use hermetic storage equipment. In the Northern region, cowpea losses are estimated at

Networks and partners:



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