

The Scope and Impact of Post-Harvest Losses
Farming First side event
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Your Excellencies and colleagues,

Achieving food security for all, means availability, accessibility and affordability of sufficient, nutritious food. This is no easy task in a world of growing population and requires the efforts by farmers, governments, researchers, businesses and other representatives of society.

Agriculture will need to produce more to serve basic nutritional needs. In order to achieve a global average food consumption of 3130 kcal per person per day for 9 billion people by 2050, an additional **1 billion tonnes of cereals** and **200 million tonnes of meat** would need to be produced annually.¹

The Farming First coalition believes that agricultural productivity has to be improved and food production increased in a sustainable way to find short and long-term solutions to food security worldwide.

Of course, one of the primary ways to meet needs is to reduce production losses and food waste. **We need to use more of what we grow.**

Last year, FAO estimated that post-harvest losses ranged from 15% to an enormous 50% in developing countries.

Waste is worst in fresh produce which delivers vital nutrients to humans around the globe. Losses in both the developed and developing world are estimated at over 30%.

Cereals and Pulses

Let me focus on the specific consequences in my country - Uganda.

¹ Bruinsma, 2009. Based on comparisons to 2005-07 levels.

Recent studies on Maize have revealed that farmers experience losses at various levels as follows:

Level	Estimated Losses	Remarks
Field	12%	prolonged field drying and late harvest
Transportation from Field	1-2%	poor bagging/packaging of the harvest
On-farm drying	6%	inappropriate drying facilities
Shelling and cleaning	2-3%	inappropriate technologies
Storage (4-8 months)	6-8%	poor storage facilities, insect pest infestation and sharing with rats
Total	+(-) 30%	

These losses also apply to legumes and pulses and in fact, they tend to be higher as these two types of crops are more susceptible to insect infestation both in pods and in seed than cereals. These losses contribute to food and nutrition insecurity as they reduce food availability.

For fruits and vegetables, the losses are even higher due to the perishable nature. Lack of cold storage/cold chain and appropriate storage increase post harvest losses.

If marketing is not properly organised, losses of up to 80% can occur. This is in fresh fruits like mangoes, pawpaws and sweet bananas. In vegetable, tomato farmers have recorded losses of up to 60% during the peak seasons.

Generally, there are losses recorded during marketing of most commodities due to the poor state of the market facilities.

Value addition would be the possible solution where fruits are made into juices, syrups/concentrates.

Livestock

The major product where farmers incur post-harvest losses in livestock is milk. This is mainly due to lack of cold storage at farm level. Besides, lack of primary processing equipment also contributes to these losses.

During the peak season, farmers are forced to pour away milk when they fail to sell it off. Also poor hygiene can be a big cause of post-harvest losses in milk where farmers fail to properly store milk over-night.

Fish

The major cause of post harvest losses in fish is lack of cold chain. Because of the high perishability, a lot of fish is lost by the vendors and some unsuspecting consumers. Vendors try to offset these losses by smoking the “bad” fish.

Honey

The major cause of post harvest losses in honey is poor harvesting technologies and skills. Because of lack of appropriate technologies, over 20% of the would-be honey is left in combs.

What does this mean on our farms?

- 1) Reduced available food for the household due to weight loss caused by insects and rodents
- 2) Reduced household income due to losses
- 3) Loss in quality of the food affects marketability
- 4) Reduced available food for the market
- 5) Reduced carry-over seed for planting in the following season
- 6) Nutrition loss – protein and vitamin content is lost due to rodents and moth larvae

The overall impact is food insecurity in the farm household and among the population.

So, we recommend the immediate need at the farm level for:

- Building local storage facilities and transportation mechanisms, including cold chain storage for food preservation. (We are pleased to note that the draft Plan of Action includes specific mention of storage needs.)
- Rural infrastructure including roads, links to railways, and to ports.
- Localising the application of agronomic knowledge, pest-identification and meteorological information.
- Educating the public on sustainable consumption and production needs and behaviours, including on the need to reduce food waste.
- Providing risk management tools to support farmers in managing weather and market variations.

But, as OECD points out, the problem of food waste is not limited to developing countries. One study suggests that 40-50% of food that is ready for harvest in some developed countries not consumed, and that households waste can range from 14 -28% of their food purchases.

Action is required throughout the food chain, including at the consumer level, to reduce food waste. Proper storage, market signals, transportation, and processing are needed – ironically often in the countries where food can least afford to be wasted. So, too, we need to educate consumers and

end users. For once food moves to cities, vast percentages of it go to waste there.

All these losses lead to other forms of waste. One estimate puts the energy embodied in wasted food in the United States as equivalent to 2% to total energy consumption – roughly the same percentage as agriculture consumes to grow food in the first place.

Agricultural waste needs to be reduced, and waste that does occur needs to be used more constructively. Re-use of spoiled food in rural areas as feed and compost, and as green energy in urban areas, will help to minimize the impact of losses.

However, the best way to improve agriculture's output is to tackle the question of post harvest losses head on.