Impacts of Reducing Food Losses across the Value Chain

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**Food Losses:**
Losses in production (including PHL), distribution, and processing.

- More prevalent in developing countries
- Representative samples of farmers, middlemen and processors

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**Food Waste**
- More prevalent in developed countries
- Not covered
Evidence from China, Ecuador, Ethiopia, Guatemala, Honduras and Peru

- Food losses are substantial (6% - 26% of production)
- Especially when we account for quality losses
- Most of the losses occur at the farm level (56% - 86% of losses)

Determinants vary by crop, context, and production stage

Main determinants:
- weather
- poor knowledge of how to avoid pests & plagues
- poor technology (no mechanization, low quality seeds)
- poor infrastructure (storage, transportation, processing)
- low and volatile prices

Less food loss = higher farm income?

• Yes:
  - by definition if preventing food loss as quality loss (lower value)
  - much, if not most of losses happen at the farm level

• Depends:
  - If “saved” food can be sold in market (without price loss)
  - More likely if food loss prevention through
    - improved handling, packaging on farm (sealed bags, crates, etc.)
    - adequate storage (dry and cold chains)
    - adequate transportation
    - greater processing capacity
    - certification of food quality/safety and contractual arrangements
  - Even more so, above also helps reduce market price volatility

• But:
  - Cost of technologies/interventions should not be prohibitive
  - Thinks need to work along the entire supply chain
Less food loss = crop substitution?

• We do not know
  - Little evidence about patterns of crop substitution in response to reductions in food loss

• Depends on
  - the extent of adoption of new technology and demand elasticity of crop
  - shift to higher value added crops (e.g. fruits and vegetables) more likely if also cold chains are also developed
Less food waste = lower prices and farm incomes?

- **We do not know**
  - Little evidence

- **YES**
  - If significant food waste reduction, prices would drop and farm incomes may drop for that food product (*ceteris paribus*).

- **BUT**
  - Consumer purchasing power would rise and demand could shift to higher value added foods
  - Impacts on *nutrition* outcomes could be *ambiguous*
  - Impacts on *environmental pressures* could be *ambiguous*
Reducing food loss cannot be sole focus

- There are simple solutions reducing food loss, but benefits not always around the corner
  - Farm level benefits require full value chain development and market access
  - Income and nutritional gains will depend on broader food system improvements
  - Environmental gains not achieved by just reducing food loss; agriculture and food systems at large need to be made sustainable