

- FWL definitions (FAO, WRI, WRAP, FUSIONS, FEEDBACK, NORDIC FOOD WASTE...) are to be used based on measurement purpose – waste management/valorisation, food security (FLW Standard by FLW Protocol - UNEP, WRAP, WRI)
- WHERE-based definitions – loss if closer to primary production end, waste if at retail, consumption
 - (and further variations e.g. harvest level/preharvest/postharvest)
- SAFE-based definitions – loss if less safe, waste if still safe to eat
- AVOIDABLE vs UNAVOIDABLE (edible/inedible – by-products?)
- INTENDED vs UNINTENDED USE (even if still reaching human consumption after redistribution?)

'Food Loss' (FAO 2011)
'Post-harvest Losses' (Bourne 1977, Prusky 2011)

'Food Waste' (FAO 2011)



Primary
Producer

Processing
/ Packaging

Wholesale

Retail

Consumer

"Food Waste" (Parfitt et al 2010)
"Food loss and waste" (Smil 2000)

Food Wastage

Food Loss

Agricultural
production and harvest

Processing

Food waste

Distribution
& retail

Restaurants
& catering

Domestic
consumption

Raw materials with the potential to be eaten by humans

Food with the potential
to be eaten

Inedible fraction removed within
the supply chain

Food eaten

Food waste

Food consumed

Food loss

Non-food parts

Animal feed

Biogas

Incineration

Disposal

1
Avoidable
food waste

Abandoned edible food
(e.g. bread, fruit,
meat, etc.)

2
Potentially
avoidable
food waste

Food not consumable
for all people
(e.g. crust, potato peel, etc.)

3
Unavoidable
food waste

Uneatable food
(e.g. bones, egg shell,
fruit peel, etc.)

Production
(including post-harvest
handling and storage)

Mortality of animals (on-farm or during transport); Fish discards; Loss of milk due to mastitis; Crops not fully harvested or green-harvested; Product damage during harvest, storage or transport; Products sorted out due to cosmetic requirements; Unpredictable changes of contract terms

Processing

Process losses (peeling, washing, slicing, boiling, etc.); Wastes from plant shut-down/washings, spillage, spoilage; Product damage during storage; Suppliers having to take back products that were not sold

Retail

Date expiry in depot/in-store; Products not sold despite 'mark-downs'; Surplus stock; Product damage or quality/weight reduction during storage; Products sorted out due to cosmetic requirements

Consumers

Waste during storage; Surplus cooked; Food that has been 'spoilt'; Food preparation waste; Plate scrapings

- Economic justification ('not profitable to harvest') included as 'loss' in some definitions
- Ethical aspects (consumption of food surplus to caloric requirements?)
- Technological development aspects – may lead to lower FLW but confuse measurement
- Cultural aspects – truly by-product, what's edible?
- Food safety – beyond agreed set(s) of guidelines, how safe is safe?
- Perceptions & sensitivity – what sounds better – waste or loss?

Plan B



- Can current FLW definitions be harmonised (how?) or should we have more of them?
- Are they generic enough to cover socio-economic, cultural, environmental differences? Or too specific to fit all?
- Are 'WHERE-based' definitions flexible enough to juggle interchangeable use of 'loss' and 'waste' (e.g. retail-caused harvest loss)?
- Are 'SAFE-based' definitions flexible enough to cover everything from standards to perceptions?

Practical version of Plan A



- Keywords from workshop presentations: on-farm FLW, technology, wasted energy, consumption FLW, responsibilities, supply chain, perceptions, terminology and connotations, data and methodology, standards, legislation, stakeholder communication, institutional collaboration, systems thinking
- Looking at the above (or ignoring them) – could you list 3-10 instruments to streamline current FLW definitions (or come up with your own encompassing all) – please email to luiza.toma@sruc.ac.uk, thanks