

4-5
December
2017

Budapest

SUSTAINABLE FOOD SYSTEMS FOR HEALTHY DIETS IN EUROPE AND CENTRAL ASIA

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LOSSES AND INEFFICIENCIES IN THE GLOBAL FOOD SYSTEM

UNITED NATIONS DECISION ON
ACTION ON NUTRITION
2016-2025



Food and Agriculture
Organization of the
United Nations



World Health
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Research aims

- Assess role of different losses/waste, from production, processing, transport and consumption, including:
 - Over-consumption
 - Losses during livestock productions



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Definition of food system losses and food waste

- Food waste is a food loss relating to retailers' and consumers' behaviour (Gustavsson et al., 2011)
- If objective of the food system sufficient healthy and nutritious food sustainably
 - consumption in excess of nutritional requirements is also a form of food waste
- Is focus on discarded food proportionate to the issue?
 - Gets substantial public, media and policy attention, but is this justified.



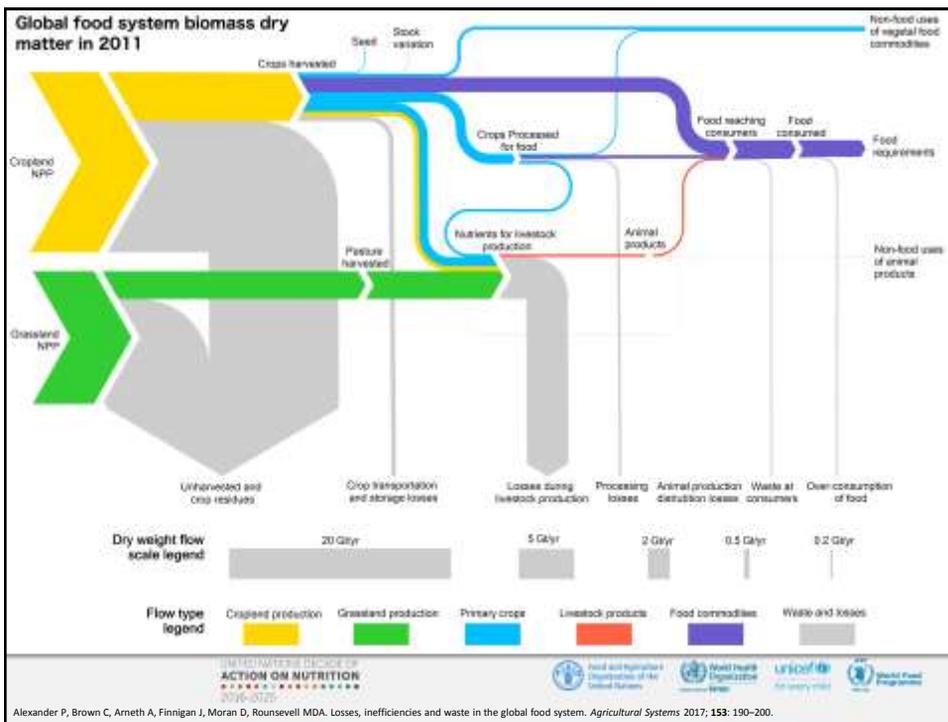
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J. Gustavsson, C. Cederberg, U. Sonesson, R. van Otterdijk, A. Meybeck, *Global food losses and food waste— Extent, causes and prevention.* (Food and Agriculture Organization of the United Nations (FAO), Rome, Italy., 2011)



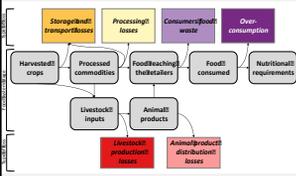
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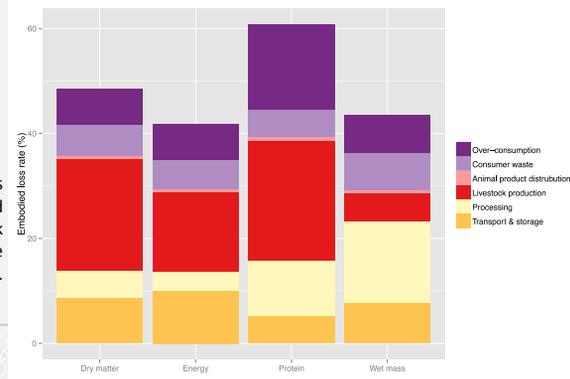
Global harvested crop losses

- Overall, around **half** of harvested crops are lost through the food system considered
- Around **~10%** of commodities reaching consumers or retailers is discarded
- At least as much lost due to over-consumption



Food system processes and losses from harvested crops considered

Losses of harvested crops (excluding grassland and forage crop inputs to livestock production) by stage in the food system.



UN HIGH LEVEL PANEL OF EXPERTS
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Frequently, impression is that most food losses are discarded food.

- ... many stating 1/3 of food wasted, e.g.,

The collage features several news headlines and images. At the top left is the Guardian logo. The main headline reads 'One third of the world's food goes to waste, says FAO'. Below it, a sub-headline says 'One Third of Food Wasted. Can Retailers Help?'. To the right, a 'NEWS' banner includes 'Europe' and 'France Election 2017'. Below this, another headline reads 'One third of world's food is wasted, says UN study'. At the bottom, there is an image of a chicken with a speech bubble saying 'food isn't garbage' and another headline 'A third of the food we produce is wasted'. A small image of various fruits and vegetables is also visible.

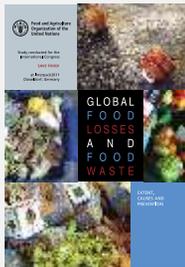
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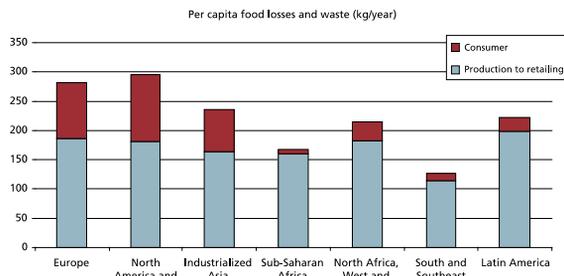
Although, not actually what the FAO report suggests

- “roughly one-third of food produced for human consumption is **lost or wasted** globally, which amounts to about 1.3 billion tons per year”
- Suggests < 10% of food is discarded after reaching retailers



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Figure 2. Per capita food losses and waste, at consumption and pre-consumptions stages, in different regions



Source: Gustavsson J, Cederberg C, Sonesson U, Otterdijk R van, Meybeck A. Global food losses and food waste—Extent, causes and prevention. FAO, Rome, Italy, 2011.

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Last portion of food dilemma



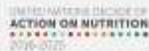
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Health versus environmental costs from 'food waste'

- Crude global estimates
 - **\$2.0 trillion health externalities** costs per year from global obesity (Dobbs et al. 2014)
 - 13% (£16 billion) of the UK's annual health budget in 2014 was spent on medical costs associated with diabetes and conditions related to being overweight or obese.
 - **\$200 billion environmental** costs per year from production of food waste, assuming
 - Food waste (discarded food + over-consumption) is 20% of agricultural production
 - 11 Gt of CO₂e per year total agricultural and land use emissions (Smith et al. 2014)
 - US\$80/t CO₂e
- Health burden might be a more politically and individually attractive entry point for change, with co-benefits for climate and environmental goals.



Smith P, et al. Agriculture, Forestry and Other Land Use (AFOLU), in: Climate change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the IPCC, 2014
Dobbs S, Swann C, Thompson F, et al. Overcoming obesity: an initial economic assessment. A discussion paper by the McKinsey Global Institute, November, 2014



Conclusions

- Discarded food waste is important, but not the only (or even most important) change that consumers could make.
- Results highlight importance of diet
- A number of small changes could make a cumulatively substantial impact, e.g.
 - Less meat over-all
 - Switch from beef to chicken
 - Less over-consumption and other forms of loss

