
The socio-economic impacts of reducing food waste

SAVE FOOD Partnership Event Rome, December 10, 2013

Yuca Waarts, Martine Rutten



Structure

- Background
- Socio-economic impacts of reducing food waste in the EU
 - households
 - the economy
 - land use
 - food security
- Lessons learnt
- Main messages

Why are food losses and waste problematic?

- Economic perspective → we cannot afford it
- Food security / hunger → it is morally unacceptable
- Resource scarcity → resources embodied in food



Need to know impacts to know where to focus efforts!

What are the impacts of reducing waste?



The impact of reducing food waste by households and in retail in the EU

Research questions

- How can the biggest impacts be reached?
- How does the impact of reducing food waste compare to EU citizens changing to a healthy diet?

Method

Scenario analyses using MAGNET (2012-2020)

- Business as usual scenario
- Food waste reduction scenario
- Healthy diet scenario

EU households are better off (40% scenario)

Annual budget savings:

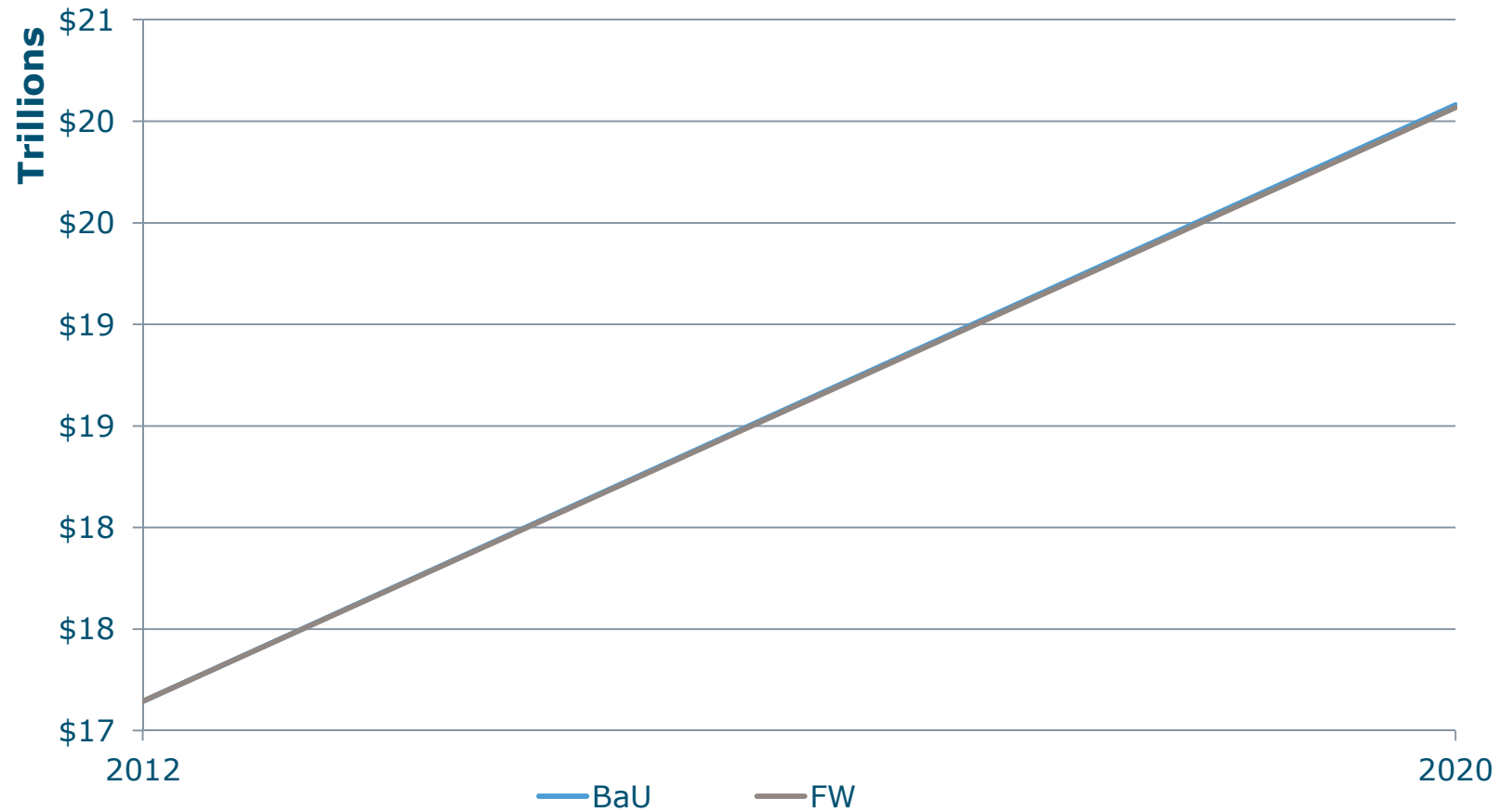
- 123 Euro per capita – 7% of budget spent on food in 2020
- Assumption: households spend these on goods and services

Mechanism behind impacts



EU GDP stays fairly constant (40% scenario)

-0.09% of GDP in 2020, BaU growth of 2% per year



EU sectoral impacts: some win, some lose

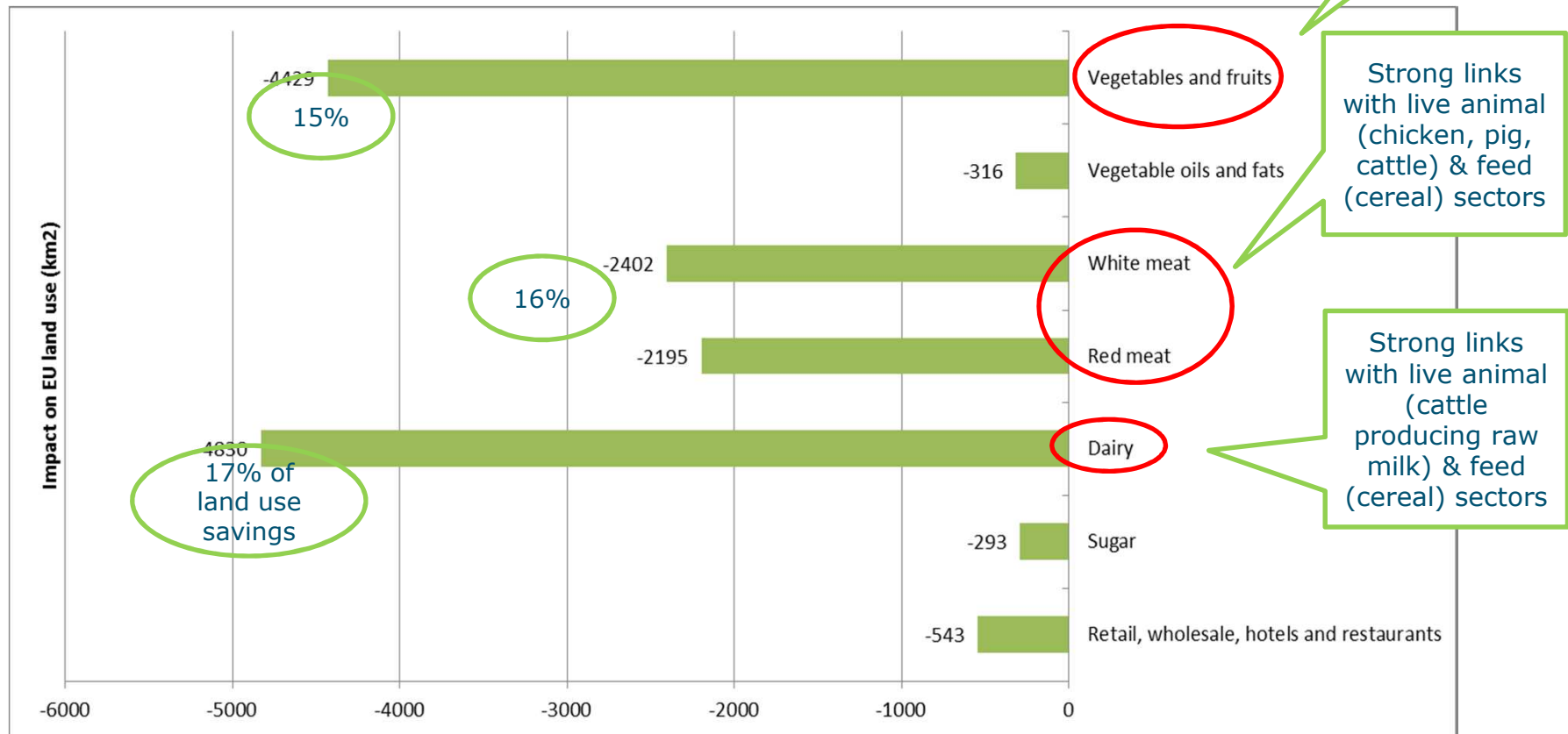
If all household and retail food waste is reduced by 40% in 2020:

- EU agri-food production volumes fall by an average of 4.4% compared to what was projected in 2020
- Resources move out of agri-food sectors into manufacturing and services

Considerable land use changes (40% scenario)

28940 km² = Belgium

Which sectors should receive priority?



Healthy diet scenario performs better

- Triples land use savings
- Halves GDP loss
- Slightly better impact on food security Sub Sahara Africa



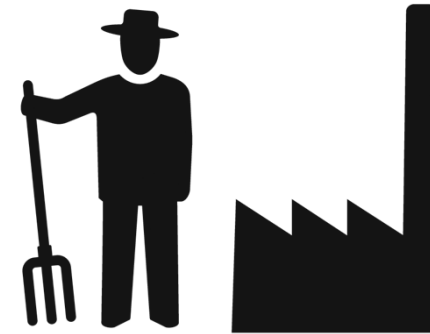
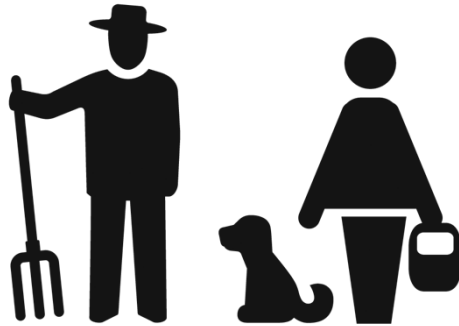
→ Better to accompany household and retail waste reductions in the EU by a behavioural change towards a healthy diet

Which sectors to receive priority?



Lessons

Trade offs: winners and losers



- Across EU policy goals (e.g. land use, health)
- Across regions (EU, Central and South America, North America, Middle East and North Africa)
- Over time (diminishing returns, costs, save up?)

Need for further work

Further research (priorities at LEI Wageningen UR)

- account for causes
- account for costs
- household decomposition
- behaviour regarding food waste
- more regions, food losses on supply side, more detail
- environmental and health impacts
- whole food supply chain approach incl. interactions

} Reasons why we waste!

→

NEED FOR DATA

Initiatives Wageningen UR:
FUSIONS, Network of Excellence PHL

Main messages

Need to know impacts - costs and benefits - to know what best to focus on

- take into account the macroeconomic context and market dynamics
- take into account microeconomic business reality: there are reasons why food is lost or wasted

<-> Importance of reliable and more detailed data

Tackling food losses and waste at consumer and retail level has an important role to play but on its own won't save the world

Thank you!

More information?

Mrs. Martine Rutten

martine.rutten@wur.nl

Mrs. Yuca Waarts

Yuca.waarts@wur.nl



Related research

Rutten, M. (2013), "What economic theory tells us about the impacts of reducing food losses and/or waste: implications for research, policy and practice", *Agriculture & Food Security*, 2:13.

Rutten, M. and Kavallari, A. (2013), "Can reductions in agricultural food losses avoid some of the trade-offs involved when safeguarding domestic food security? A case study of the Middle East and North Africa", GTAP Conference paper, June 12-14, 2013.

Rutten, M. et. al (2013, forthcoming), "Reducing Food Waste by Households and in Retail in the EU: a Prioritization on the Basis of Economic, Land Use and Food Security Impacts"