

SDG 12.3 – Ecological effects of halving food losses and waste

- the German food sector case -

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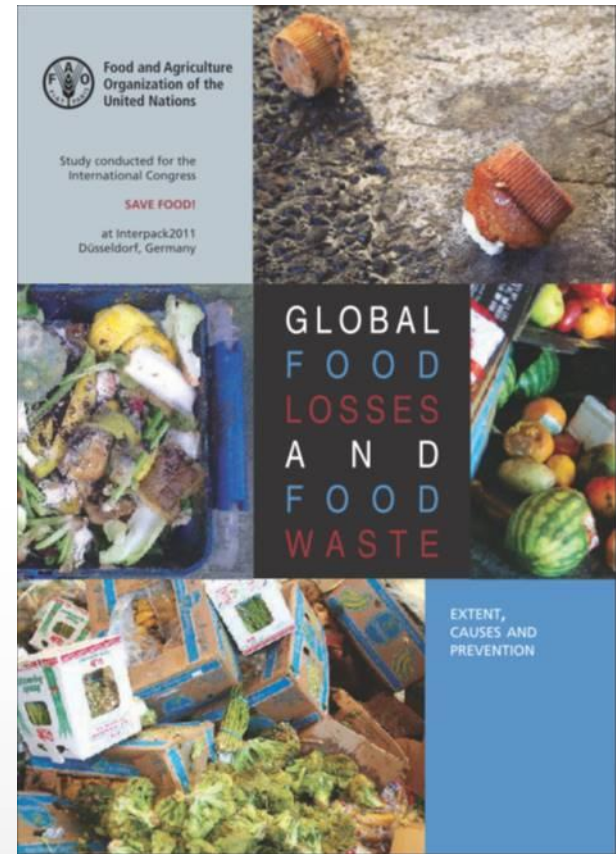
WHY is this item important?

HOW is the challenge addressed?

WHAT does it mean?

- FAO, 2011 (Global FLW)

*‘... roughly **one-third of food** produced for human consumption is lost or wasted globally, which amounts to about **1.3 billion tons per year.**’*



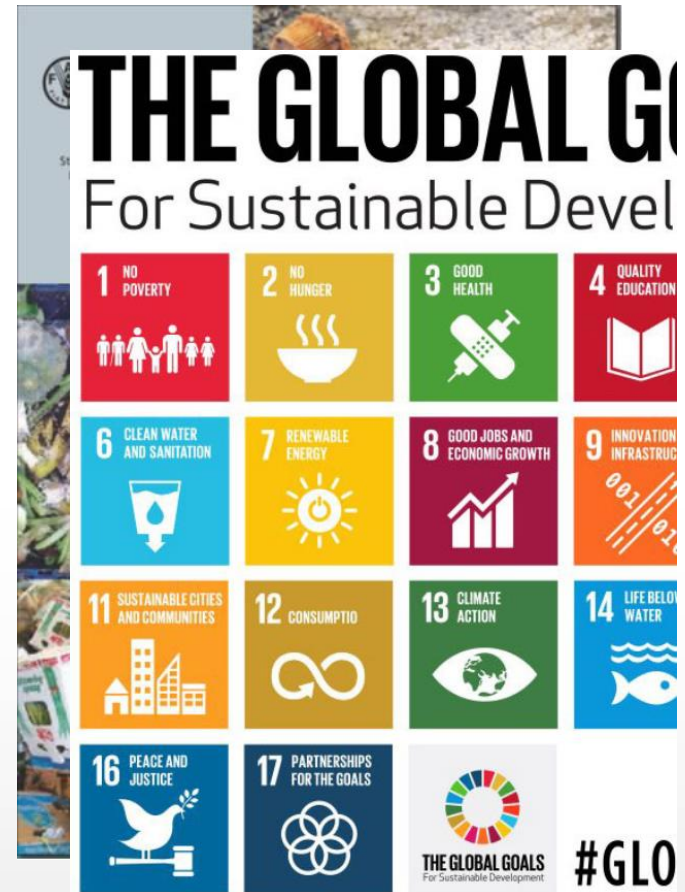
objectives

WHY is this item important?

- FAO, 2011
- UN, 2015 (SDG)

Goal 12: Responsible consumption and production

*Target 12.3: ... **half** per capita global **food waste** at the **retail and consumer level**, and reducing food losses along production and supply chains (including post-harvest losses) by 2030.*



objectives

WHY is this item important?

- FAO, 2011
- UN, 2015
- EU, 2015 (Directive)



'... Member States should take measures [...] halving food waste by 2030.'

objectives

WHY is this item important?

- FAO, 2011
- UN, 2015
- EU, 2015
- BMEL, 2016 (Grünbuch)

*BMEL – Federal Ministry of Food
and Agriculture:*

*‘... achieve the goal
of halving food waste by 2030..’*



- **Target 12.3:**

‘By 2030, **halve** per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.’

>>> means that food losses and waste will be reported in **[metric tons of fresh mass]**

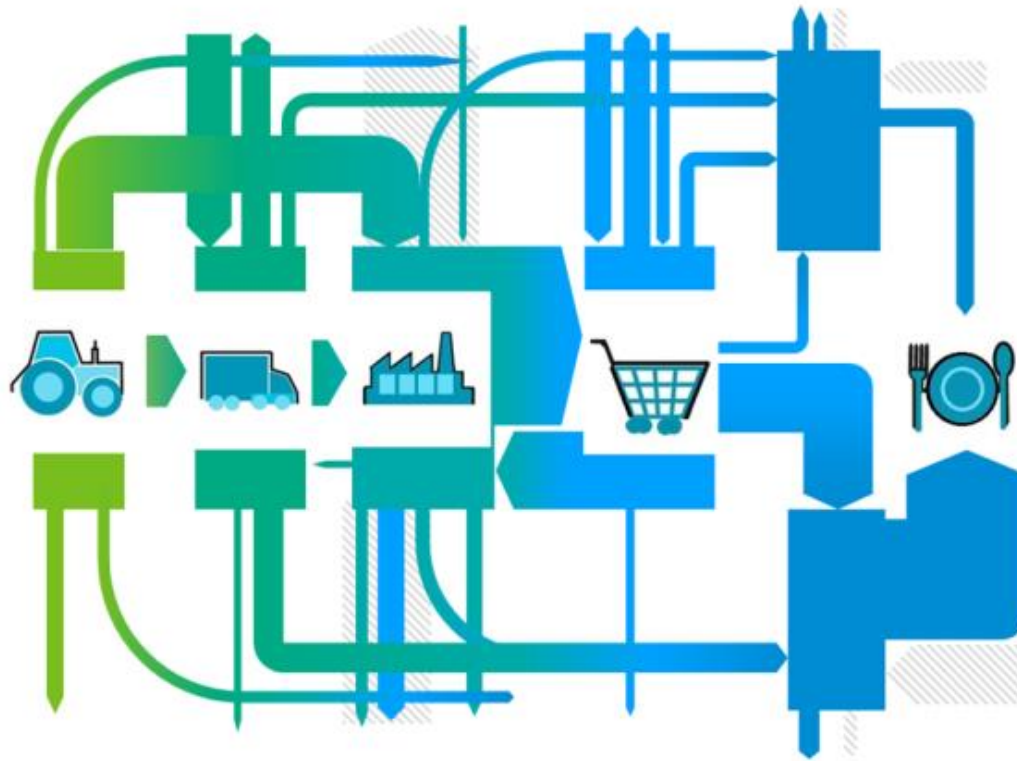
- this is a **basic-indicator** in front of the three dimensions of sustainable development: the economic, social and environmental
- in addition there should be more (result-)indicators that describe the effects of sustainable development

Result-Indicators, for instance:

- Greenhouse gases
- land use
- energy input
- costs
- employment
- ...

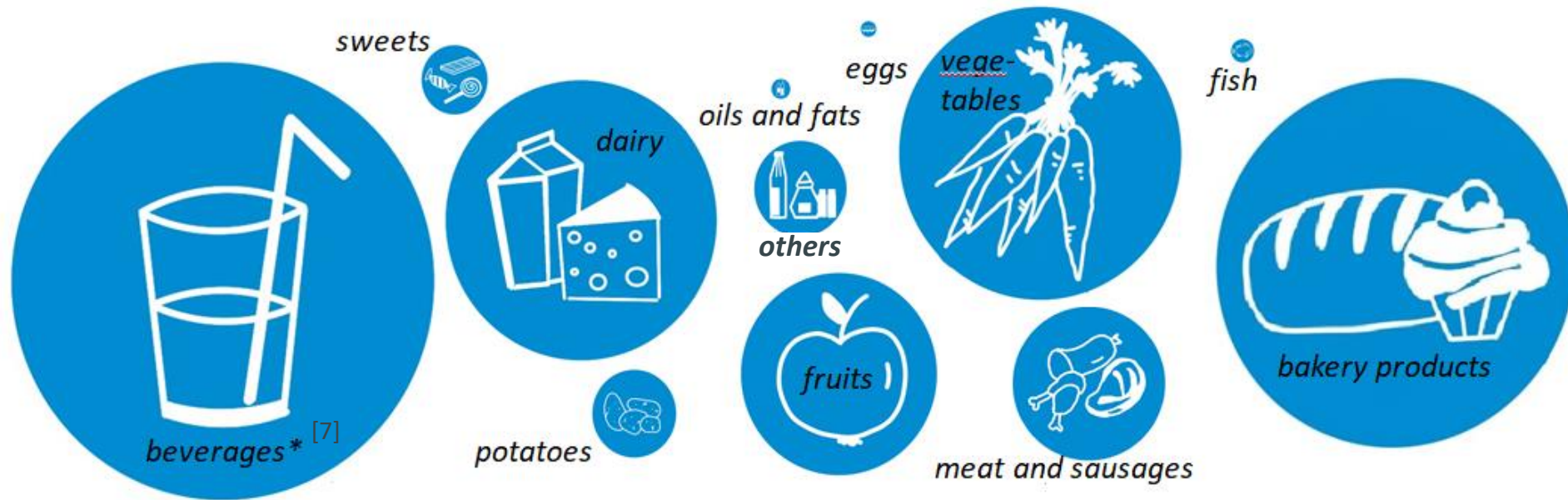
material and methods **HOW** is the challenge addressed?

- mass balanced material flow model of the German food system



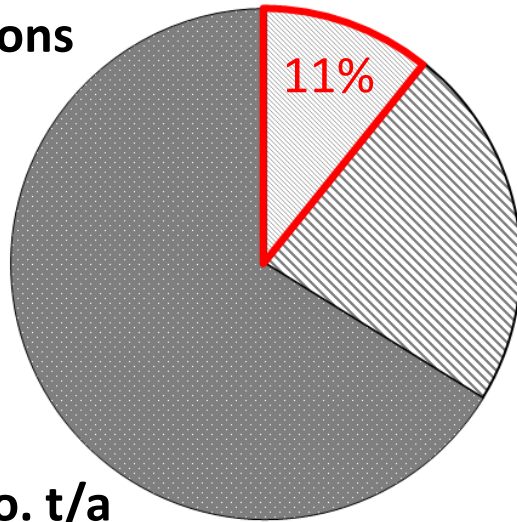
material and methods **HOW** is the challenge addressed?

- defined 500 activities in 12 groups of food products



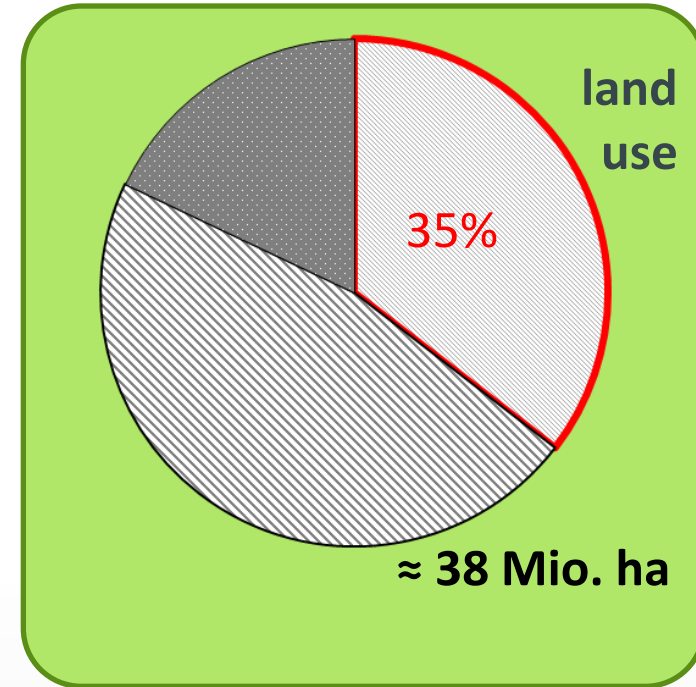
results >Ecological impacts of the food consumption in Germany, actual state <

food consumption in metric tons of fresh mass

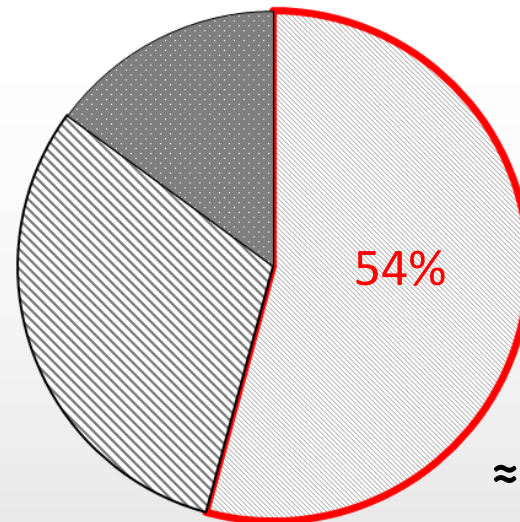


≈ 95 Mio. t/a

- animal products
- ▨ plant products
- beverages



≈ 38 Mio. ha

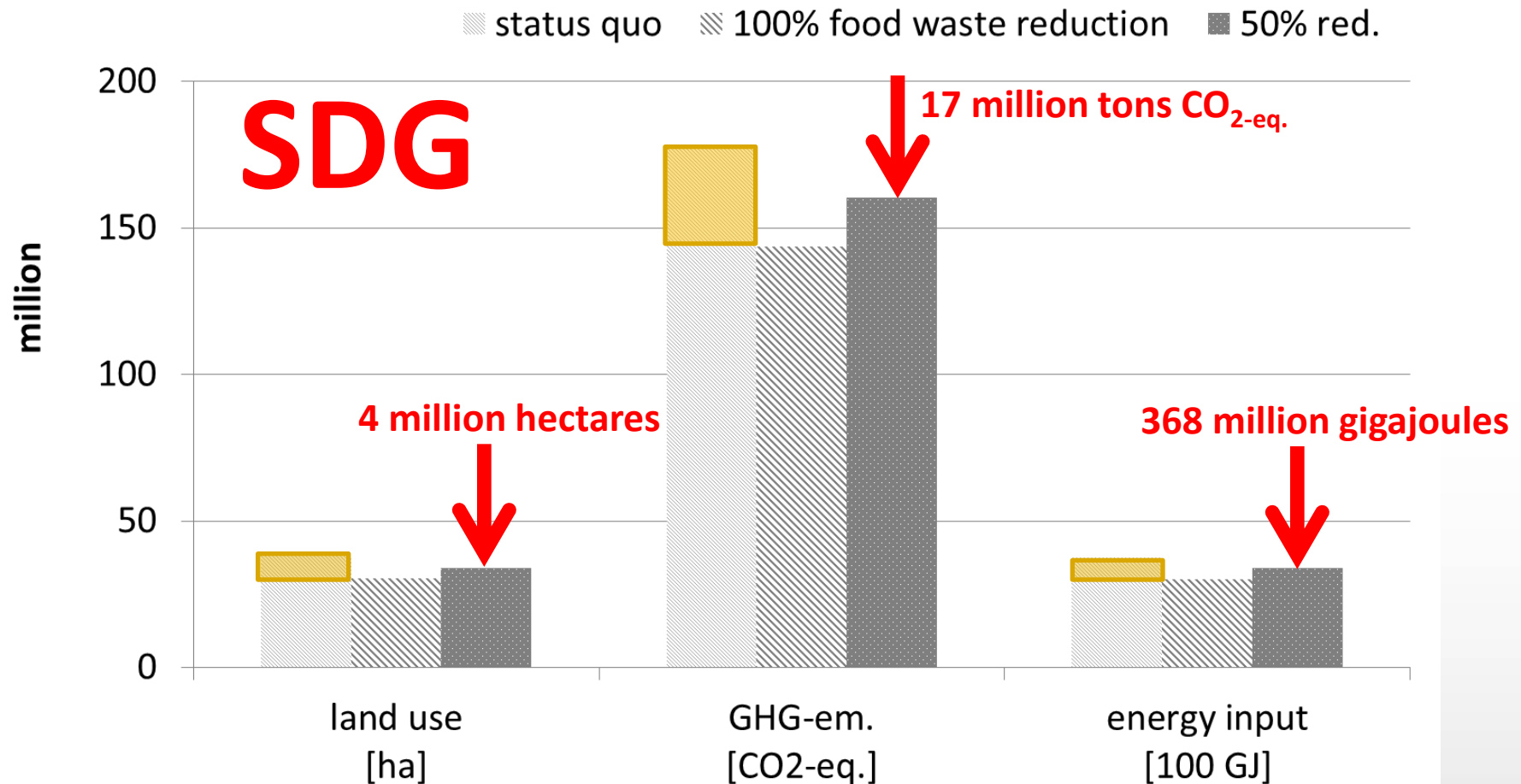


CO₂-equivalents
≈ 177 Mio. t CO₂-equ./a



executed by using data of EXIOBASE and the software openLCA

results >Ecological impacts of the food consumption in Germany, status quo and two scenario analyses<



conclusions

(1) benefits of SDG 12.3 in terms of sustainability remain to be quantified

(2) great potential of food waste reduction

>>>reduction activities and their environmental as well as socio-economic impacts should be considered

.. especially when efficient reduction measures have to be recommended

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