



# Why becoming a vegetarian is not going to save the world.

Sanderine Nonhebel and Winnie Leenes

# Production of food puts large claim on environment

- > It uses:
  - > 30 % of the land
  - > 70 % of the fresh water
  - > 20 % of the energy

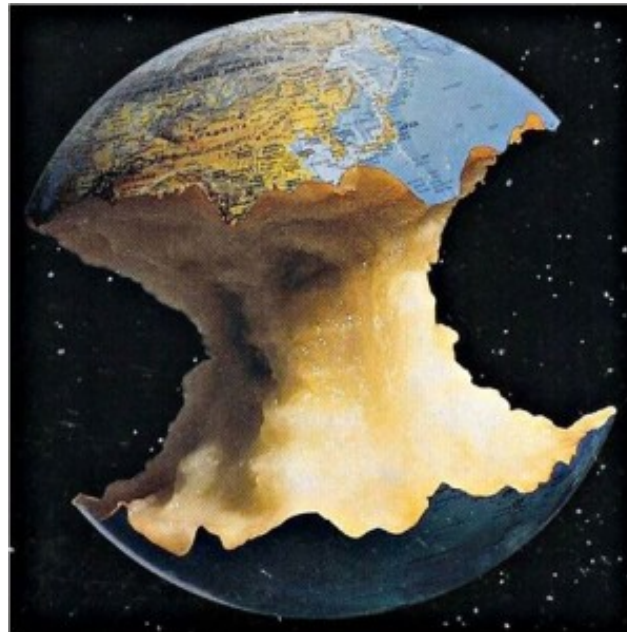
# Production of food puts large claim on environment

- > Is major cause for
  - > Deforestation
  - > Eutrophication
  - > Acidification
  - > Erosion
  - > Desiccation
  - > Decline biodiversity

- > Food causes the largest environmental impact of our total consumption
- > However, stop consuming food is not an option.

# Huge challenge:

- › Enough healthy food for the global population, without destroying the global environment.



Can we reduce the  
environmental impact of our  
food by changing our  
consumption pattern?

# What is the environmental impact of individual food items?

# Method: chain analysis

- › Determine land, water and energy required in the whole production chain.

















# Typical values resource use food items

	<b>Energy MJ/kg</b>	<b>Land m<sup>2</sup>/kg</b>	<b>Water l/kg</b>
Vegetables	5	0,2	100
Bread	18	1,1	600
Potatoes	2	0,2	80
Rice	20	3	3000
Veg. oil	30	10	3000
Meat	90	12	8000
Milk	10	1,3	600
Coffee	38	16	17000

# A luxurious diet requires more resources than a basic one.

- > Wheat as livestock feed (5 kg of wheat for 1 kg of meat)
- > More energy for growing, storing, transport preparation
- > More packaging

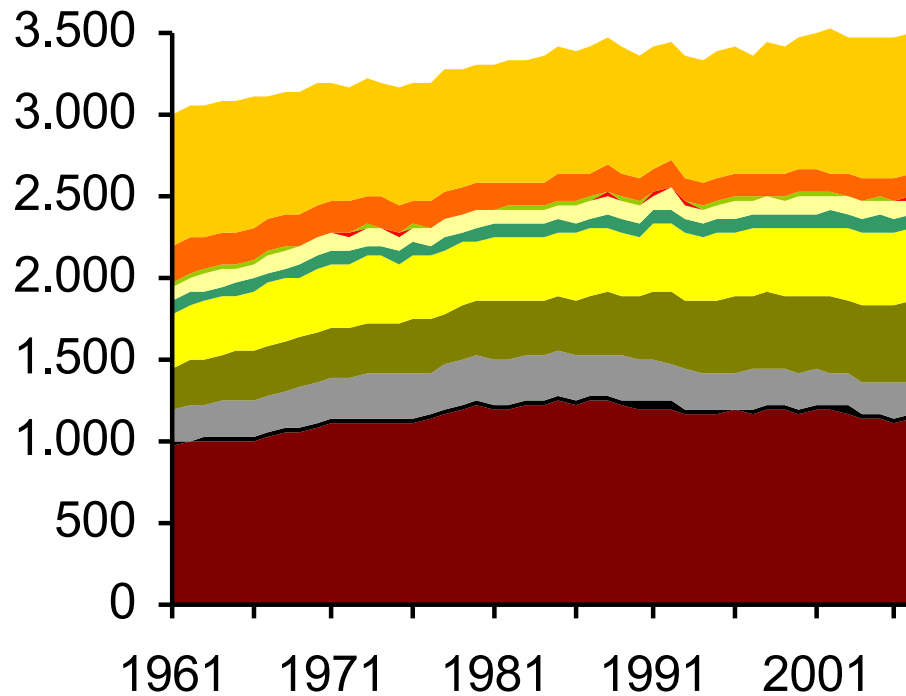




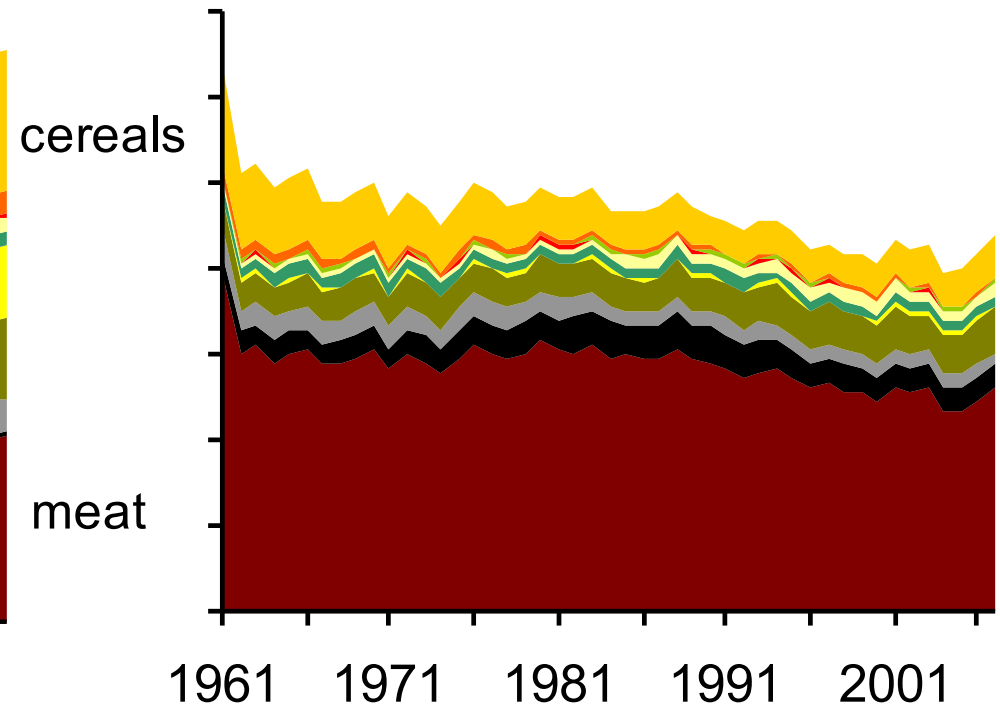


# Western Europe

Consumption in kcal



Land use for this consumption



Reduction meat consumption  
reduces environmental  
impacts of food

# Vegetarian meals become popular

- > Restaurants
- > Cantines
- > Shops
- > Policy
- > Recipes

# What is the environmental impact of a vegetarian meal?

# 2 menus

Potato, cabbage,  
sausage

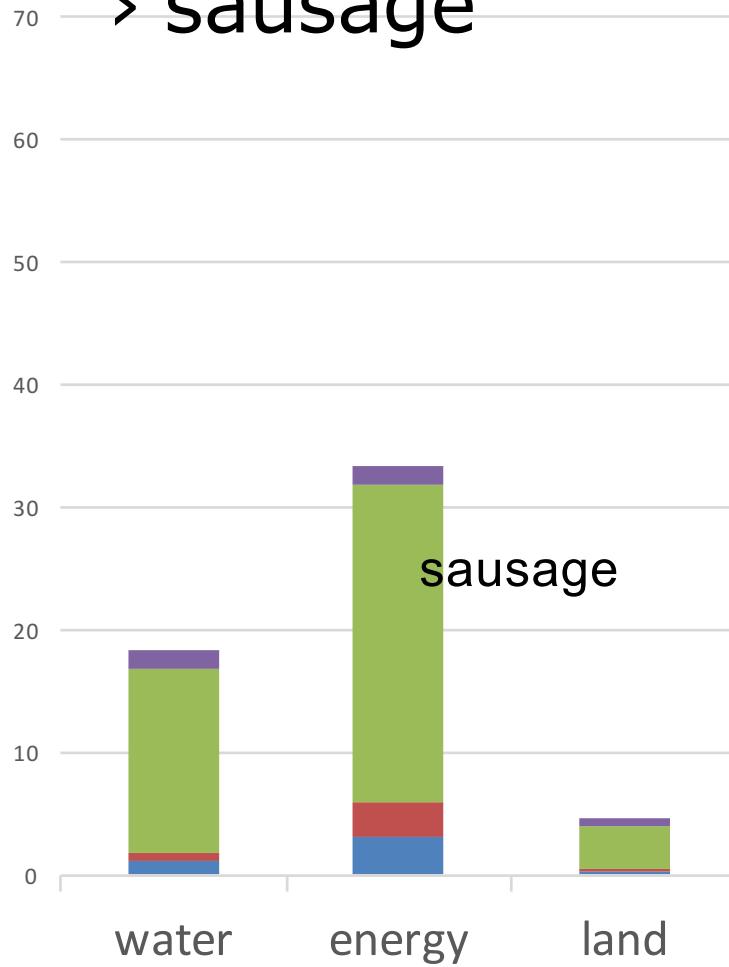


Rice, cashew nuts,  
spinace cheese

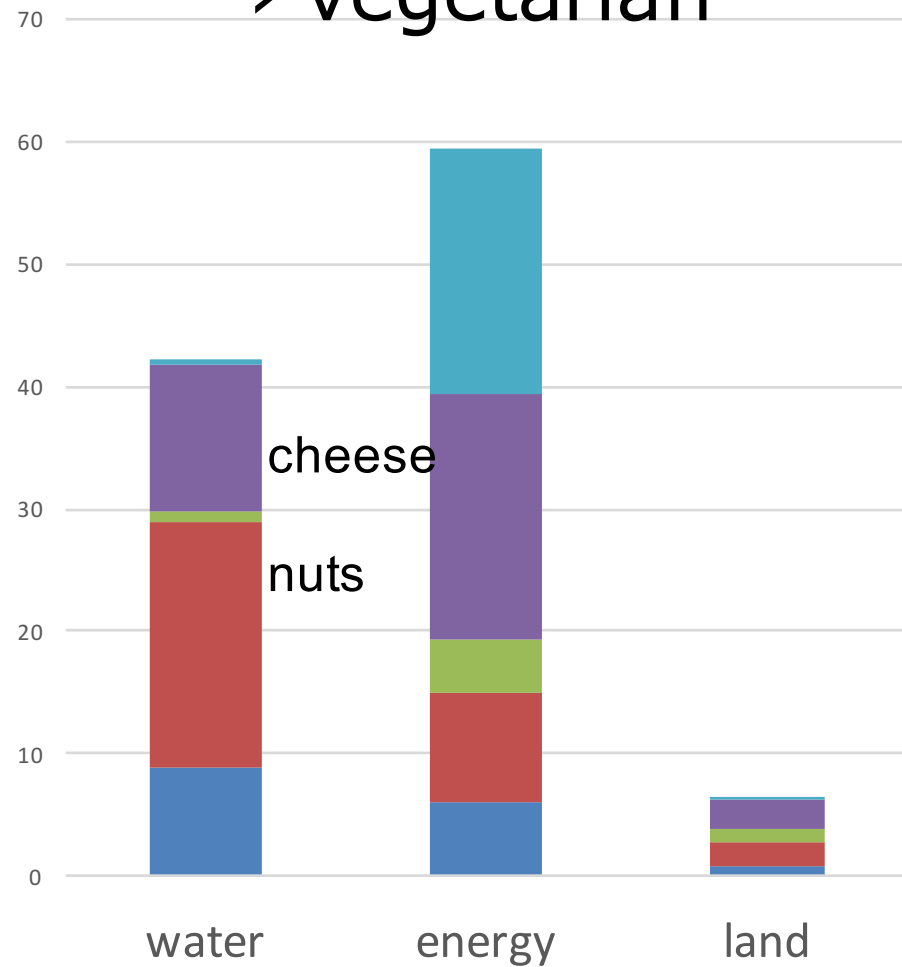


# Resource use

> sausage



> vegetarian



# The resource use of the vegetarian meal is higher!

- > These results can also be found for many more vegetarian recipes





university of  
 groningen

faculty of mathematics  
 and natural sciences

energy and environmental  
 sciences

That is why becoming a  
 vegetarian is not going to  
 save this world.

There is a strong need for resource saving recipes.