

Lesson Plan:

How our eating habits influence the world

Aims: Evaluating personal eating habits and understanding the corresponding impact of global warming

Looking for ideas to reduce personal CO² emissions

Time needed: 45 minutes



Warm up activity 5 Minutes

Look at the picture and explain your first thoughts.



Expected result: Planes have a very high CO² emission. Maybe a hamburger does too.

Let's find out about it!

Identification of the lesson's central issue 2 Minutes

What we eat has an impact. With our food we also make decisions on our carbon footprint. So it is important to understand the background of our food production so we can make responsible decisions.

[Important: This is not about telling students what to eat. The aim is to put them into the position to understand the consequences of their food decisions and to be able to make responsible individual decisions about it.]

Research on food production. Special Focus: Meat and animal products**20 Minutes**

Get together in groups of four. Analyse your material and try to explain the different factors like the use of land and water, and the CO² emission.

Comment on the special effect of producing meat and animal products.

Discussion of the results **10 Minutes**

Present your results to class.

Expected results (collected on board / smart board)

- Eating meat and also eating animal products causes an inefficiently great use of resources like land and water
- For the great areas of land needed, also (rain) forests are cut down. Thus, wild animals lose their home and the forests' capacity of transferring CO² into oxygen is lost
- In addition, animal farming produces much CO²



Eating meat and also eating animal products is inefficient when putting the need of resources and the CO² emission in relation to the amount of energy (calories) won.

Reflection **6 Minutes**

Now, what do we do with this information? Does this make you want to change your eating habits? Why? How?

Outlook, research on vegetarian or vegan food **2 Minutes**

When we meet again, we want to discuss our experience on vegetarian and vegan food:

In the next two weeks, look out for vegetarian and vegan food you might like and which you want to try. Discuss this in your family and see if they are willing to support your project. How many "meat meals" a week can you replace? Bring recipes and food recommendations to share in class.

Material used for the analysis

See corresponding document:

Erasmus lesson meat and climate material.pdf

Eating meat - a problem?





???



Environmental effect of eating animal products

“The livestock sector produces about 15% of global greenhouse gases, roughly equivalent to all the exhaust emissions of every car, train, ship and aircraft on the planet. “

<https://www.bbc.com/news/science-environment-34899066>

Impact of consuming animal products

This means: eating animal products, like meat, cheese, milk etc. produces as much harmful gas as all

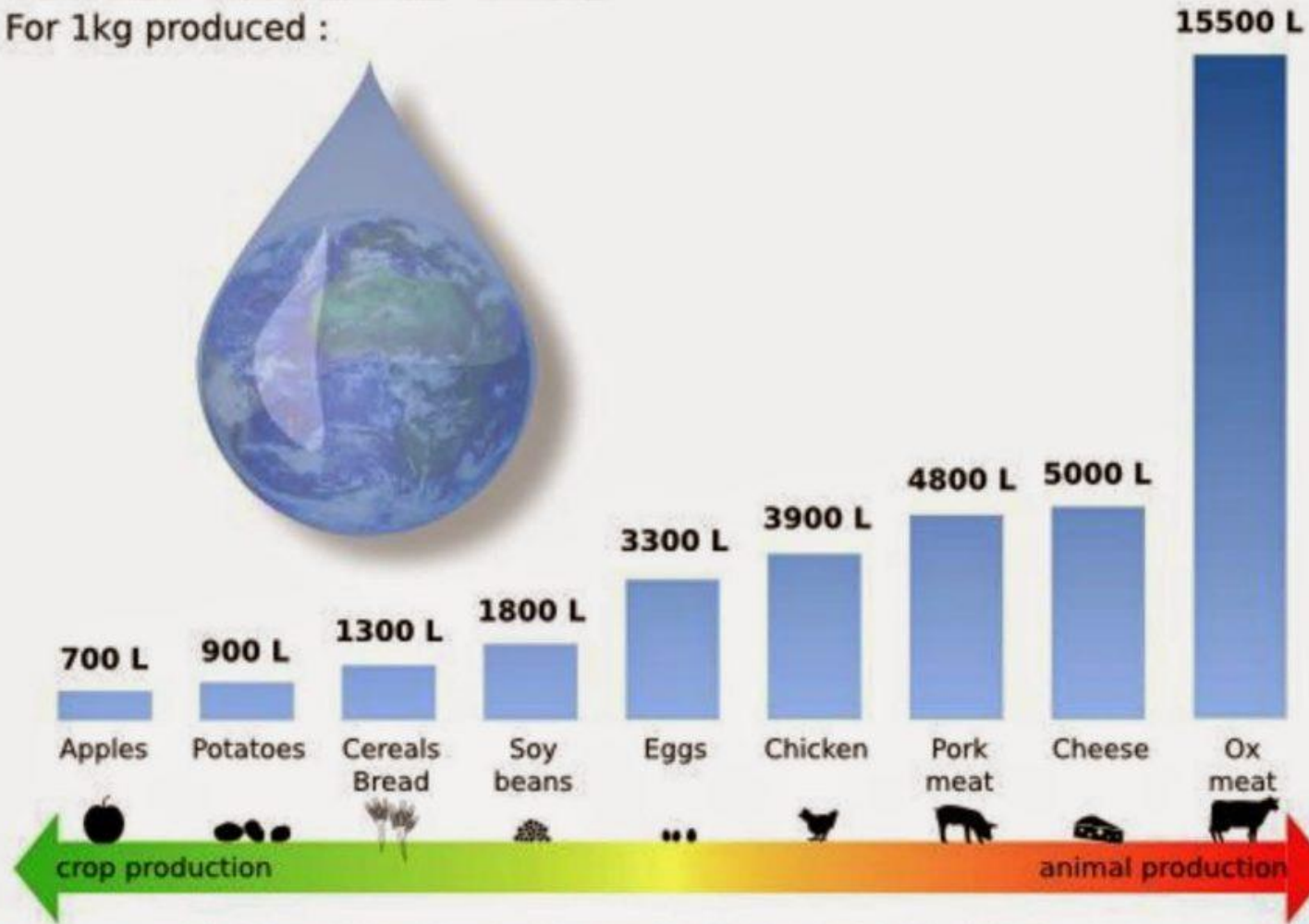
- ▶ **Trains**
- ▶ **Cars and lorries**
- ▶ **Cruise liners**
- ▶ **Planes**

Together!



Water need for food

For 1kg produced :

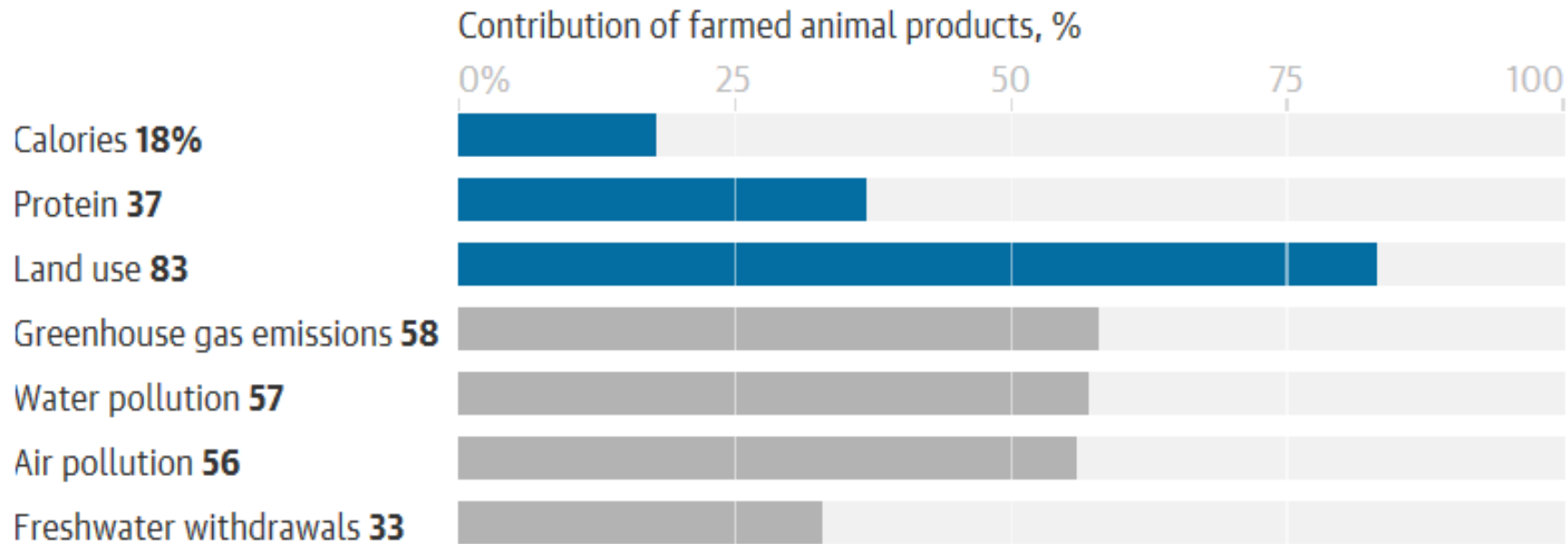


Source : Water Foot Print <http://www.waterfootprint.org/?page=files/productgallery>

Diagram www.L214.com

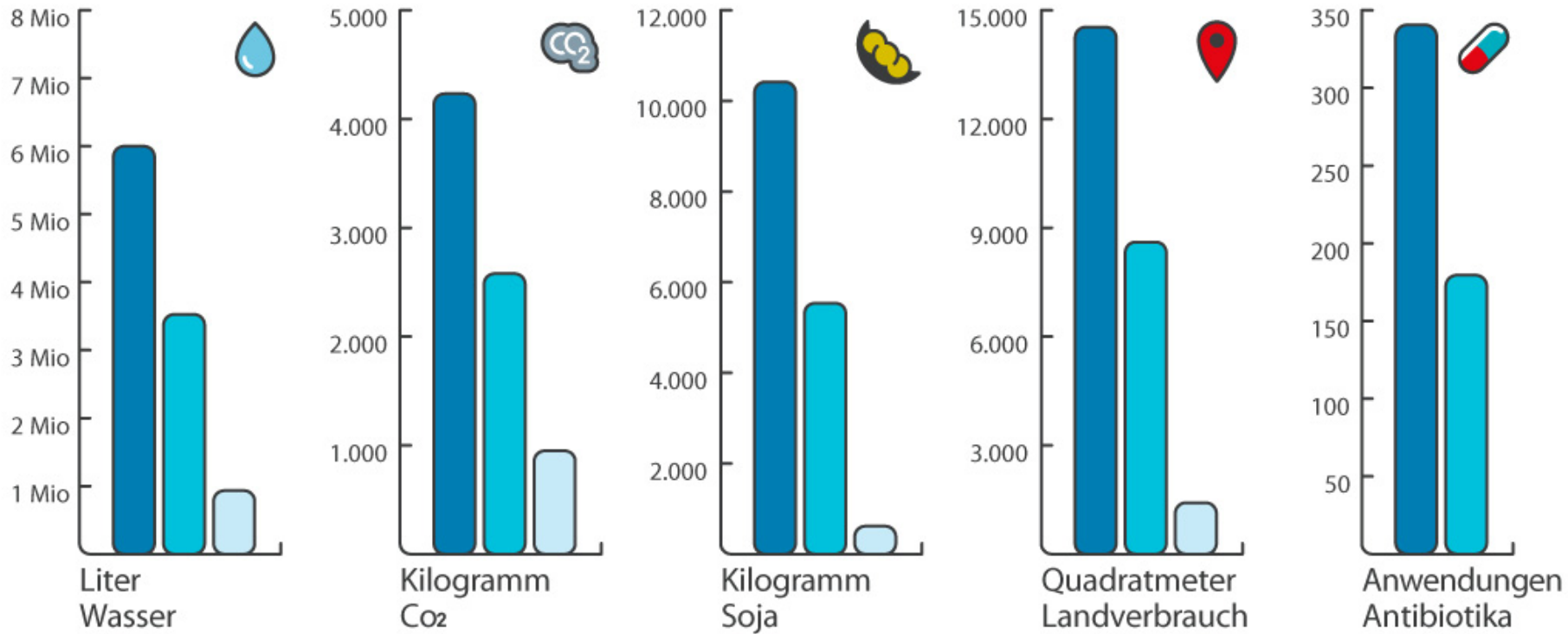
Impact of consuming animal products

More than 80% of farmland is used for livestock but it produces just 18% of food calories and 37% of protein



Guardian Graphic | Source: Poore and Nemecek, Science

This is how we could help the environment by eating less meat



durchschnittlicher Fleischkonsum 50% Fleisch 50% Vegetarisch komplette vegetarische Ernährung

blitzrechner.de/fleisch

Impact of consuming animal products

The largest meat consumers

Million tonnes, 2011

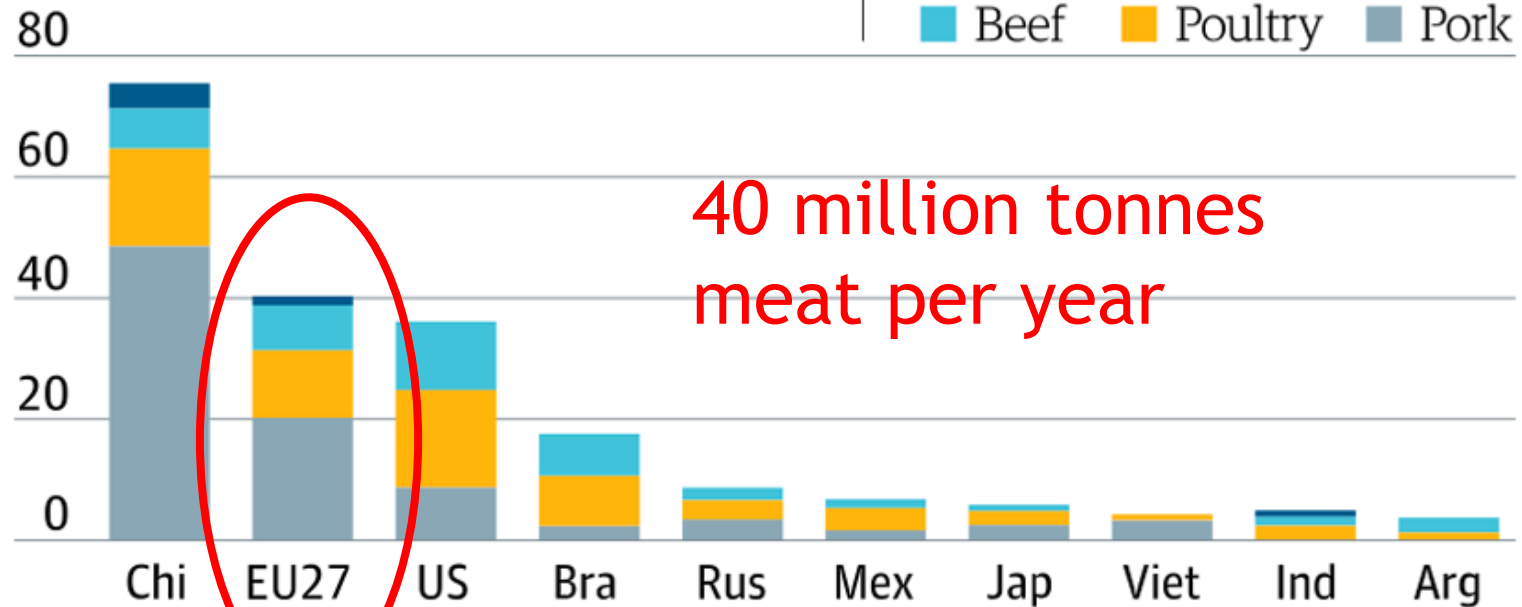
Key

■ Mutton and goat meat

■ Beef

■ Poultry

■ Pork



40 million tonnes
meat per year

GUARDIAN GRAPHIC

SOURCE: FAOSTAT

Some fun facts

Spain: Since 2011, number of vegetarian restaurants has doubled

Germany: 10% vegetarian plus ca. 50% „Flexitarians“ (part-time vegetarians)

People who eat less meat and eat more vegetables are healthier (less risk of heart attacks)

Vegetarians live longer

:-)

Impact of consuming animal products

“A vegan diet is probably the single biggest way to reduce your impact on planet Earth,”

said Joseph Poore, University of Oxford, UK

“It is far bigger than cutting down on your flights or buying an electric car.”

<https://www.theguardian.com/environment/2018/may/31/avoiding-meat-and-dairy-is-single-biggest-way-to-reduce-your-impact-on-earth>