

Cows and Climate Change

Warm up:

- What are some basic things people can do to reduce their carbon footprint?
- Are you vegan or vegetarian, or have you ever considered becoming one?
- Do you do anything to reduce your carbon footprint?
- Do you think your country is doing a good job of reducing carbon emissions? What more could be done?
- What are some ways that farming and agriculture contribute to greenhouse emissions?



1. Read the article below and put the words in brackets in the correct form.

Farming and agriculture*obviously*..... (obvious) have a huge impact on climate change, with an *estimated* (estimate) 29% of all greenhouse gases coming from the agricultural sector. Land clearing, fertilizer, distribution, and food preparation all factor into this figure, and many climate scientists say this is one of the first sectors any country looking to *emit* (emission) less greenhouse gases should reform. *Ironically* (irony), agriculture may well be one of the first areas to feel the *harmful* (harm) effects of climate change, as many experts believe fertile farmland will shift dramatically in the next 30 years.

The International Food Policy Research Institute *predicts/has predicted* (predict) that by 2050 the most fertile farmland for the top four food commodities (potatoes, corn, wheat, and rice), will shift, forcing many countries and farmers to adapt to new, unfamiliar crops. This may cause food shortages, and population growth is expected to *contribute* (contribution) to the problem. Of the four major crops, corn is expected to be the hardest hit, as the IFPRI predicts a 24% drop in corn production by 2050.

Climate change will have a variety of consequences around the world, but it is clear that poorer nations will be the first to feel effects. The majority of developing country's economies depend *heavily* (heavy) on agriculture, which means developing countries may suffer more *economic* (economy) damage than developed nations.



2. Match the words in the box with the pictures below

solar panels

wind turbines

landfills

coal

oil spills

recycling

a) *wind turbines*b) *coal*c) *solar panels*d) *landfills*e) *Recycling*f) *oil spills*

3. Read through the descriptions of inventions and innovations in “green technology” and complete them with the words from exercise 2.

a) Washing *coal* before burning it is standard practice in developed countries. This process reduces the amount of ash and sulphur dioxide released into the air.

b) With all the rubbish thrown into them, it's not surprising that *landfills* produce a huge amount of gas. However, it has now become common to capture this gas (mostly methane) and resell it. In fact, this is the third largest source of methane in the U.S.

c) One of the more creative ideas to harness the power of the sun is “Floatovoltaics”, essentially huge groups of *solar panels* which are designed to float in the ocean.

d) We all know that plastic is a problem, but several companies have started *recycling* plastic waste by creating “eco-bricks”; reusable, cheap, environmentally friendly bricks.

e) One of the biggest downsides of *wind turbines* is that the sound of their blades revolving can be a nuisance for anyone who lives near them. However, a new technology called “vortex shredding” means that we may soon see “bladeless” and silent versions.

f) New satellite technology means that it is now possible to monitor, track, and predict *oil spills* around the world, and have helped several governments catch and prosecute individuals deliberately dumping harmful chemicals.



4. You are going to watch a video which contains the vocabulary in the box. Use the vocabulary to complete the sentences below.

poultry	fertilizer	deforestation
surpass	burp	cattle
		digest

- Young plants should be watered with *fertilizer* every week.
- Business is booming, we expect to *surpass* \$10 million in profits this year.
- She's lactose intolerant, she can't *digest* dairy products.
- Frozen chicken and other *poultry* must always be defrosted before cooking.
- We have both dairy and beef *cattle* on the farm.
- They are trying to prevent the *deforestation* of the Amazon.
- In some cultures it is considered polite to *burp* after a meal.



5. Watch the video "Why Beef is the Worst Food for the Climate"¹ and answer the questions.

- Is pork worse for the environment than chocolate? *No*
- Why does coffee have such a big environmental footprint? *Because of the fertilizer it requires*
- What is Enteric Fermentation? *A digestion process that allows cattle to digest grass.*
- Why is methane potentially more damaging than carbon dioxide? *Because it traps more heat.*
- Is there more farmland dedicated for animals or crops around the world? *More to animals.*
- Why are nuts, citrus fruits, and olives particularly environmentally friendly foods? *Because planting them counts as "reforestation"*

¹ https://www.youtube.com/watch?v=3lrJYTsKdUM&ab_channel=Vox