

## Meat, dairy and rice production will bust 1.5C climate target, shows study

### Level 2: Intermediate

#### 1 Warmer

- a. Would you change your diet to help the planet? What would you change? Why? Give reasons for your answer.

#### 2 Key words

- a. Fill the gaps in the sentences using these key words from the text.

access      atmosphere      complex      estimate      increase      limit  
population      production      rises      tackle      target      trap

1. When people or governments work to deal with a problem, they try to \_\_\_\_\_ it.
2. The process of making a lot of something, usually in a factory or on a farm, is called \_\_\_\_\_.
3. Something you try to achieve is a \_\_\_\_\_.
4. When you \_\_\_\_\_ something, you guess or use information to say what an amount will be.
5. When something increases in amount, quality, or strength, it \_\_\_\_\_.
6. A \_\_\_\_\_ is the largest or smallest amount of something that is allowed.
7. Something that is \_\_\_\_\_ has many details or parts that make it difficult.
8. When you \_\_\_\_\_ something, you keep it in one place for a long time.
9. The \_\_\_\_\_ is the air around the Earth or another planet.
10. The number of people who live in a particular area is the \_\_\_\_\_.
11. An \_\_\_\_\_ is when the amount, size, or importance of something grows larger.
12. If you have the opportunity to have, get, or use something that will bring benefits, you have \_\_\_\_\_ to it.

- b. Choose four of the words in task A and write personalised sentences using them.

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**Damian Carrington**

**06 March, 2023**

- 1 Gases from the food system will drive the world past 1.5C of global heating, unless high-methane foods are tackled.
- 2 Climate-heating gases from food production, mostly meat, dairy and rice, will break the key international target of 1.5C if it is not controlled, a study has shown.
- 3 The study showed that if today's levels continue, they will result in at least 0.7C of global heating by the end of the century, on top of the 1C rise already seen. This means food alone, without fossil fuels, would push the world past the 1.5C limit.
- 4 The study also showed that 75 per cent of this heating was a result of high-methane foods, that is those coming from cattle and rice fields. However, the scientists said the temperature rise could be reduced by 55 per cent by cutting how much meat people eat in rich countries, reducing gases produced by livestock, and using clean energy.
- 5 Earlier studies have shown the effects of food production on the environment, but the new study estimates the temperature rises. These could be much higher because the study assumed the amount of meat people eat stays the same but it may rise by 70 per cent by 2050.
- 6 Catherine Ivanovich, at Columbia University, US, who led the research, said that methane played an important part in warming associated with food systems. She also said that how we produce food today means we will not meet the 1.5C temperature limit, so reducing these harmful gases is urgent, especially from the high-methane foods.
- 7 Global food production's connection to the climate is complex because it involves several important greenhouse gases, all of which can trap heat and stay in the atmosphere. Previous studies does not show the effects of methane over a shorter time, but this one does.
- 8 The research, published in *Nature Climate Change*, treated each greenhouse gas separately for 94 types of food, so that their effects over time could be understood. This showed that today's levels of food production would lead to a rise of 0.7C by 2100 if global population grows slowly, and a 0.9C rise if it grows quickly.
- 9 Because we already reached more than 1C warming by 2021, the scientists said that the additional warming from food production alone is enough to go past the 1.5C target. This means that the climate's future is unsafe without changes.
- 10 We could slow down food-related temperature rise, the researchers said. If people followed the healthy diet recommended by Harvard Medical School, eating red meat once a week, it could be cut by 0.2C. This would mean people eating less meat in rich countries but could mean an increase in some poorer ones.
- 11 Changing the type of food for cattle and managing their waste better could avoid another 0.2C, the researchers said, and changing to green energy would cut 0.15C. Ivanovich said these ideas were possible today but new technology might be able to do more.
- 12 Professor Pete Smith, at the University of Aberdeen, UK, said that research in 2021 showed that 57 per cent of gases from the food system come from animal agriculture, and this shows how important reducing them is.
- 13 Only a third of the world's countries included agriculture in their climate plans for the UN Paris Agreement. The researchers' work tried to understand the effects of food on global heating. Ivanovich also said they had to protect access to both food and jobs for vulnerable people.

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First published in *The Guardian*, 06/03/2023

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#### 3 Comprehension check

a. Answer the questions using information from the article.

1. What will increase global heating by 1.5 degrees Celsius?
2. What three areas of food production cause these gases?
3. If these levels continue, how much hotter will the world be due to food production by the end of the century?
4. What is the name of the gas causing most of this change?
5. What are the three things scientists say would reduce the temperature rise by 55 per cent?
6. What is the difference between this new study and earlier ones?
7. Why are greenhouse gases dangerous for the environment?
8. How much would the rise be cut if people ate just one serving of red meat per week?
9. What per cent of gases come from animal agriculture?
10. What proportion of countries include agriculture in their climate plans?

#### 4 Key language

a. Underline the correct preposition to complete the phrases from the text.

1. would result **in** / **on** / **of**
2. be reduced **of** / **under** / **by**
3. show the effects **under** / **of** / **to**
4. play a part **in** / **on** / **to**
5. mean an increase **on** / **in** / **under**
6. changing the type **to** / **of** / **on**
7. protect access **to** / **on** / **in**

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#### 5 Discussion

**a. Discuss these statements.**

- “Eating meat once a week is a good solution to the climate change problem.”
- “We should not change what we eat because someone will invent something to fix the problem for us.”
- “More countries should have stronger climate plans.”

#### 6 In your own words

**a. Use an internet search engine to find more information about the link between climate change and food.**

- What are some ways they are connected?
- What changes can people or governments make to fix this?

**b. Report your findings to the class.**