

Amazon "flips" to be source of CO2 emissions

17th July, 2021



Environmental scientists have revealed shocking news that parts of the Amazon rainforest are emitting more carbon dioxide than they are absorbing. The scientists said the forest is now producing over a billion tons of CO2 a year. They say the Amazon used to

be a carbon "sink". This is where CO2 was sucked up and converted into oxygen. However, it has now become a source of carbon dioxide. The forest is at risk of losing its moniker of being the lungs of the world. Researchers are predicting the rainforest will create more CO2 at an accelerating rate in the future. The biggest culprits for the Amazon's flipping from sink to source are logging, deforestation and a growing number of forest fires.

The research on the Amazon's CO2 emissions has been published in the journal "Nature". Researchers analysed 600 profiles of CO2 and carbon monoxide emissions produced by fires at various sites in Brazil's Amazon between 2010 and 2018. They found that the fires produced about 1.5 billion tons of CO2 a year, while forest growth removed just 0.5 billion tons. The researchers said the difference of one billion tons left in the atmosphere is equivalent to the annual emissions of Japan, which is the world's fifth-largest polluter. Professor Simon Lewis, from University College London, said: "The south-east Amazon sink-to-source story is yet another stark warning that climate impacts are accelerating."

Sources:
theguardian.com / usatoday.com / commondreams.org

Writing

All logging should stop for 10 years. Discuss.

Chat

Talk about these words from the article.

environmental / scientists / carbon dioxide / sink / lungs / rainforest / forest fires / research / profiles / emissions / atmosphere / annual / polluter / climate / impacts

True / False

- 1) The article says scientists revealed earth-shattering news. T / F
- 2) Parts of the Amazon produce over a billion tons of CO2. T / F
- 3) The Amazon has lost its nickname of being the "lungs of the world". T / F
- 4) The article says agriculture is the biggest culprit in flipping the Amazon. T / F
- 5) The research is published in a journal called "Nature". T / F
- 6) Forest fires produced around 1.5 billion tons of CO2 a year. T / F
- 7) Japan is the fifth-largest polluter in the world. T / F
- 8) A professor said the sink-to-source story was a stark warning. T / F

Synonym Match

(The words in **bold** are from the news article.)

- | | |
|-------------------------|---------------------|
| 1. shocking | a. assorted |
| 2. emitting | b. forecasting |
| 3. converted | c. offenders |
| 4. predicting | d. bleak |
| 5. culprits | e. appalling |
| 6. profiles | f. identical |
| 7. various | g. accounts |
| 8. equivalent | h. releasing |
| 9. stark | i. gaining momentum |
| 10. accelerating | j. changed |

Discussion – Student A

- a) How important is the Amazon rainforest?
- b) Why does the world just sit and watch the destruction of the Amazon?
- c) How dangerous is CO2?
- d) What are the dangers of the Amazon flipping?
- e) What stresses do you think environmental scientists have?
- f) How worried are you about the loss of rainforest?
- g) What three adjectives best describe this story?
- h) What advice do you have for loggers in the Amazon?

Phrase Match

- | | |
|-----------------------------|-----------------------|
| 1. scientists have revealed | a. a billion tons |
| 2. emitting more | b. emissions of Japan |
| 3. producing over | c. of forest fires |
| 4. the lungs | d. journal "Nature" |
| 5. a growing number | e. carbon dioxide |
| 6. published in the | f. warning |
| 7. forest | g. shocking news |
| 8. equivalent to the annual | h. largest polluter |
| 9. the world's fifth- | i. of the world |
| 10. yet another stark | j. growth |

Discussion – Student B

- What do you think about what you read?
- Should we all read the journal 'Nature'?
- Is it possible to return forests to their original states?
- What is your country doing to reduce CO2 emissions?
- What are you doing to reduce CO2 emissions?
- What will the environment be like in 100 years from now?
- Do you think governments will heed this latest warning?
- What questions would you like to ask the researchers?

Spelling

- reedalve shocking news
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- they are bbngoisra
- veeocdrnt into oxygen
- at an atlcecrnaieg rate
- oetestriafofn and a growing number of forest fires
- carbon oxdomeni
- fires at ouisvra sites
- one billion tons left in the etosamhepr
- iveqenuлта to the annual...
- the world's fifth-largest euloprtl
- climate satcimp

Answers – Synonym Match

1. e	2. h	3. j	4. b	5. c
6. g	7. a	8. f	9. d	10. i

Role Play

Role A – Becoming Vegetarian

You think becoming vegetarian is the best way to reduce your carbon footprint. Tell the others three reasons why. Tell them what is wrong with their ways. Also, tell the others which is the least useful of these (and why): not buying fast fashion, cycling more or switching lights off.

Role B – Not Buying Fast Fashion

You think not buying fast fashion is the best way to reduce your carbon footprint. Tell the others three reasons why. Tell them what is wrong with their ways. Also, tell the others which is the least useful of these (and why): becoming vegetarian, cycling more or switching lights off.

Role C – Cycling More

You think cycling more is the best way to reduce your carbon footprint. Tell the others three reasons why. Tell them what is wrong with their ways. Also, tell the others which is the least useful of these (and why): not buying fast fashion, becoming vegetarian or switching lights off.

Role D – Switching Lights Off

You think getting switching lights off is the best way to reduce your carbon footprint. Tell the others three reasons why. Tell them what is wrong with their ways. Also, tell the others which is the least useful of these (and why): not buying fast fashion, cycling more or becoming vegetarian.

Speaking – Carbon Footprint

Rank these ways of reducing your carbon footprint with your partner. Put the best at the top. Change partners often and share your rankings.

- Cycle more
- Get politically active
- Switch lights off
- Compost food waste
- Becoming vegetarian
- Don't buy fast fashion
- Reusable shopping bags
- Use less water

Answers – True False

1 F	2 T	3 F	4 F	5 T	6 T	7 T	8 T
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Answers to Phrase Match and Spelling are in the text.