



COP29: Satellites Detect Methane Leaks, Ignored by 'Super-Emitters'

Description

Spotting Methane Emissions

The world can now detect methane emissions, a major cause of global warming, using satellites. However, a recent report at COP29 revealed that when notified about leaks, many methane "super-emitters" don't take action.

Many countries and big oil companies have promised to reduce methane emissions, as it is the second most important greenhouse gas after carbon dioxide. Satellites are now helping to detect leaks from sources like oil and gas facilities and coal mines.

Despite alerts about large methane plumes, only a small percentage of emitters have acted to control leaks. Reasons for this could be a lack of resources or difficulty in fixing the leaks.

At the COP29 meeting, discussions on methane emissions are ongoing. Countries are taking steps to reduce methane, but challenges remain in holding emitters accountable for their emissions.

Vocabulary List:

1. **Methane** /'meθeɪn/ (noun): A colorless odorless gas that is a major greenhouse gas and a source of global warming.
2. **Emissions** /ɪ'mɪʃənz/ (noun): Gases released into the atmosphere often as a result of human activity.
3. **Super-emitters** /'su:.pə ɪ'mɪtərz/ (noun): Entities or sources that release a disproportionately large amount of emissions.
4. **Accountable** /ə'kaʊntəbl/ (adjective): Responsible for actions and decisions often regarding emissions control.
5. **Challenges** /'tʃælɪndʒɪz/ (noun): Difficulties or obstacles that hinder progress toward reducing emissions.
6. **Leaks** /li:ks/ (noun): Unintentional releases of gas or liquid from a container or infrastructure.

Comprehension Questions

Multiple Choice

1. What is one method being used to detect methane emissions?



- Option: Ground sensors
- Option: Satellites
- Option: Weather balloons
- Option: Air quality monitors

2. Why have many countries and big oil companies promised to reduce methane emissions?

- Option: It is a primary cause of acid rain
- Option: It is the most common air pollutant
- Option: It is the second most important greenhouse gas after CO₂
- Option: It is used as a renewable energy source

3. What is a significant challenge mentioned in controlling methane leaks?

- Option: Lack of available technology
- Option: Political opposition
- Option: Resistance from environmental groups
- Option: Difficulty in fixing leaks

4. What is mentioned as a reason why only a small percentage of emitters have acted to control leaks?

- Option: Lack of awareness about emissions
- Option: High cost of mitigation
- Option: Limited detection methods
- Option: Lack of resources or difficulty in fixing leaks

5. What is one source mentioned as being monitored for methane leaks?

- Option: Nuclear power plants
- Option: Oil and gas facilities
- Option: Solar farms
- Option: Hydropower plants

6. What was the focus of discussions at the COP29 meeting regarding methane emissions?

- Option: Carbon offset programs
- Option: Renewable energy targets
- Option: Reducing methane leakage
- Option: Waste management issues

True-False

7. Satellites are not currently used to detect methane emissions.



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8. The recent report at COP29 revealed that all "super-emitters" take immediate action when notified about leaks.
 9. Methane is the most important greenhouse gas after carbon monoxide.
 10. Countries and big oil companies have shown no interest in reducing methane emissions.
 11. Challenges in controlling methane leaks include resistance from environmental groups.
 12. Countries are not taking any steps to reduce methane emissions according to the COP29 meeting.

Gap-Fill

13. Despite alerts about large methane plumes, only a _____ percentage of emitters have acted to control leaks.
14. Reasons for the lack of action on methane leaks could be a lack of resources or _____ in fixing the leaks.
15. Satellites are now helping to detect leaks from sources like oil and gas _____ and coal mines.
16. Challenges remain in holding emitters accountable for their _____.
17. At the COP29 meeting, discussions on methane emissions are ongoing, with the focus on reducing methane _____.
18. Methane emissions are a major cause of _____ warming.

Answer

Multiple Choice: 1. Satellites 2. It is the second most important greenhouse gas after CO2 3. Difficulty in fixing leaks 4. Lack of resources or difficulty in fixing leaks 5. Oil and gas facilities 6. Reducing methane leakage

True-False: 7. False 8. False 9. False 10. False 11. False 12. False

Gap-Fill: 13. small 14. difficulty 15. facilities 16. emissions 17. leakage 18. global



Vocabulary quizzes

Multiple Choice (Select the Correct answer for each question.)

1. What is a common dietary supplement used to enhance athletic performance?
Option: Protein
Option: Creatine
Option: Vitamin C
Option: Iron
2. High levels of which substance in the blood can increase the risk of heart disease?
Option: Calcium
Option: Cholesterol
Option: Magnesium
Option: Potassium
3. Which greenhouse gas is primarily produced by livestock farming and decomposition of organic matter?
Option: Carbon Dioxide
Option: Ozone
Option: Methane
Option: Nitrous Oxide
4. Which term describes a situation where a single company or group owns all or nearly all of the market for a product or service?
Option: Monarchy
Option: Competition
Option: Oligopoly
Option: Monopoly
5. Which term means to help or assist someone or something?
Option: Abandon
Option: Support
Option: Undermine
Option: Ignore
6. Which term refers to the presence in or introduction into the environment of a substance or thing that has harmful or poisonous effects?
Option: Environmentalism
Option: Pollution



- Option: Conservation
- Option: Sustainability

7. What type of organizational structure distributes decision-making powers to a local level?

- Option: Centralized
- Option: Hierarchical
- Option: Decentralized
- Option: Vertical

8. Which field involves the activities associated with governance of a country or area?

- Option: Science
- Option: Politics
- Option: Economics
- Option: Technology

9. Which term describes being responsible for something or obligated to report explain or justify actions?

- Option: Negligent
- Option: Accountable
- Option: Irresponsible
- Option: Unreliable

10. Which term means to keep safe from harm injury or destruction?

- Option: Expose
- Option: Protect
- Option: Endanger
- Option: Vulnerable

Gap-Fill (Fill in the blanks with the correct word from the vocabulary list.)

11. _____ people are more susceptible to certain health conditions.

12. _____ are individuals or entities that release significantly more greenhouse gases than the average.

13. A _____ is a legal action brought to resolve a dispute.

14. Facing _____ can lead to personal growth and development.

15. Data _____ can compromise sensitive information.

16. A _____ is formed when two or more parties agree to work together towards a



common goal.

17. A _____ is a person who suffers harm or injury as a result of a wrongful act.
18. The _____ of a product can be influenced by various marketing strategies.
19. Celebrities often have a significant _____ on their followers.
20. Engaging in _____ practices can lead to conflicts of interest.

Matching Sentences (Match each definition to the correct word from the vocabulary list.)

21. Lack of adequate water intake can lead to the condition of .
22. One of the goals of environmentalists is to natural habitats and wildlife.
23. The average weather conditions prevailing in an area over a long period is known as the .
24. Unsubstantiated can harm a person's reputation.
25. The earthquake caused a disruption to the region displacing thousands of people.
26. Friends and family often provide emotional during challenging times.
27. Efforts to historical landmarks ensure they are maintained for future generations.
28. Reducing carbon is essential for combating climate change.
29. plays a significant role in shaping government policies and decision-making processes.
30. Antitrust laws aim to prevent the formation of in the marketplace.

Answer

Multiple Choice: 1. Creatine 2. Cholesterol 3. Methane 4. Monopoly 5. Support 6. Pollution 7. Decentralized 8. Politics 9. Accountable 10. Protect

Gap-Fill: 11. Elderly 12. Super-emitters 13. Lawsuit 14. Challenges 15. Leaks 16. Partnership 17. Victim 18. Popularity 19. Influence 20. Self-dealing

Matching sentence: 1. Dehydration 2. Protect 3. Climate 4. Accusations 5. Massive 6. Support 7. Preserve 8. Emissions 9. Politics 10. Monopoly



CATEGORY

1. Sci/Tech - LEVEL2

Date Created

2024/11/18

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