2016

Q: Comment, Green house effect is a blessing also discuss enhanced green house effect and its relation with global warming.

Green House Effect → Need → • Living survival

The green house effect is a natural proces where gases in Earth's atmosphere trap heat from the Sun. Keeping the planet warm enough to support life.

Evidence: NASA → without the greenhouse effect, Earth's temperature would be -18°C, instead of the Present +15°C.

Enhanced Greenhouse Effect → causes →

- Burning of fossil fuels → CO_2
- Agriculture → Methane
- Use of refrigerators → CFCs
- Deforestation → Less CO_2 absorption
- Industrial emissions → Nitrous Oxide

It refers to the increased trapping of heat due to excessive greenhouse gases from human sources.

NASA shows CO_2 concentration rose from 280 ppm to over 420 ppm 2025

discuss this in a bit more detail.....

Relation with Global Warming → Effects →
- Melting glaciers
- Rising sea levels
- Extreme heat waves
- Increased diseases

The enhanced greenhouse effect leads directly to global warming

Evidence: World Meteorological Organization (WMO, 2023)

Global temperature has increased by 1.2°C since 1880 due to enhanced greenhouse gases.

3

Q: CSS 2017

What do you mean by Ozone depletion and how we can Prevent its depletion?

1. **Definition:**

Ozone depletion means the gradual thining of the ozone layer in the Earth's stratosphere due to harmful human-made chemicals.

Why it is important:

The ozone layer protects life by absorbing harmful ultraviolet (UV) radiation from the Sun.

2. **Causes of ozone depletion:**

1. Chlorofluorocarbons (CFCs):

Used in refrigerators, air conditioners, - release chlorine atoms that destroy ozone molecules.

2. Nitrous oxide Emission:

Emitted from fertilizers and vehicles — Contributes to ozone destruction.

3. **Evidence:**

According to NASA: observe - Antarctic ozone hole.

- Environmental Impact:

Increase skin cancer, damage to crops and marine life due to (higher UV) exposure.

4. Prevention Measure:

i. **Ban on Ozone - Depletion Substances:**

Implementation of the Montreal protocol.

ii. **Use of Eco - friendly Alternatives:**

Replace CFCs with hydrofluorocarbons.

iii. **Reduce Nitrous oxide emissions:**

Promote organic farming and clean energy transportation

e.g. China E - transport.

iv. **Public Awareness:**

Encourage industries and people to avoid ozone damaging products.

e.g. through media, Uni councils, Islamic education (Khutba in Jumma).

5. Conclusion:

Ozone depletion is a serious global environment issue but international cooperation and sustainable practices have often already shown positive results - the ozone layer is gradually recovering according to UNEP (2023 report).

★ ——— ★

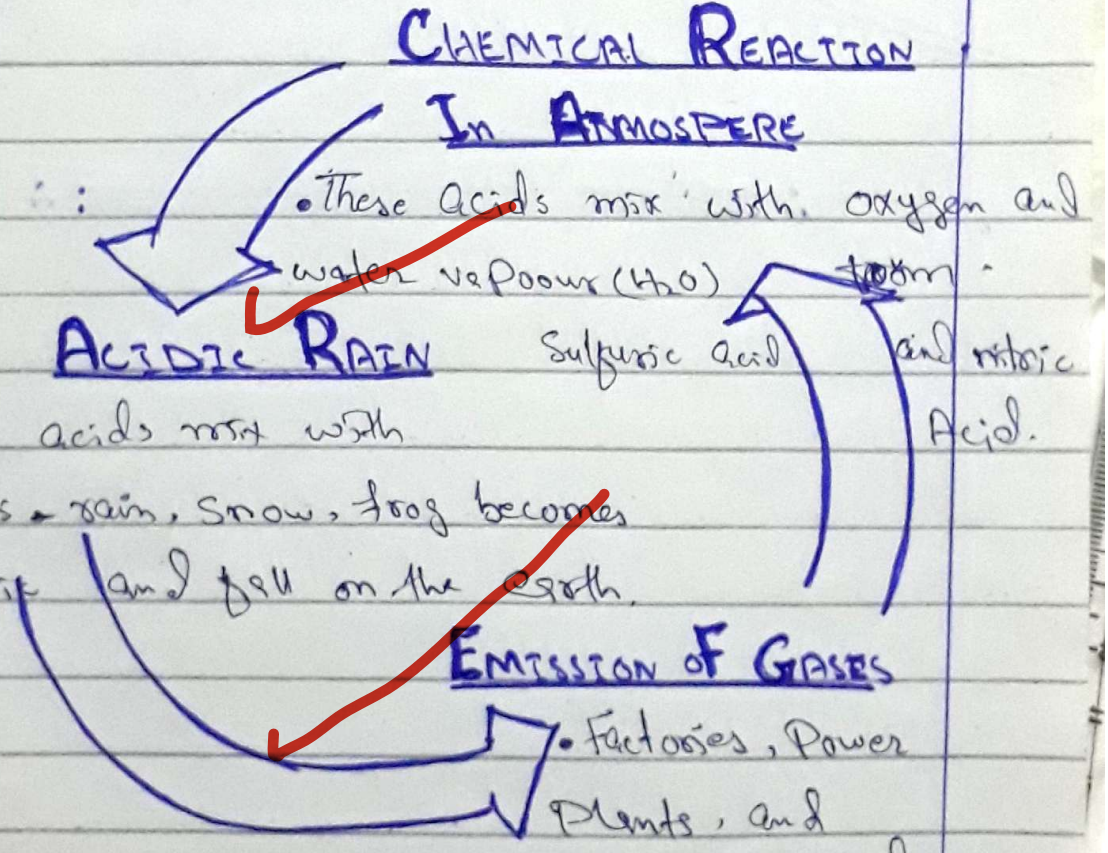
2017

Q: What is an acid rain and how it is produced. Briefly describe the dangers associated with it?

1. Definition:

Acid rain is precipitation that contain higher levels of "Sulfuric and nitric acids" ~U.S Environment Protection Agency (EPA)".

2. How acid rain is Produced:



write the chemical equation as well.....

Dangers Associated with Acid Rain

Damage Plants

- Removes nutrients from soils, burns leaves, and weakens trees.

Water Pollution

- Make lakes and rivers acidic, kills aquatic life and fishes

Damage to building

- Corrodes marbles, metals & stone e.g. Taj Mahal.

Harm to human health

- Cause breathing problem
- Polluted air harms lungs.

3.5

2019

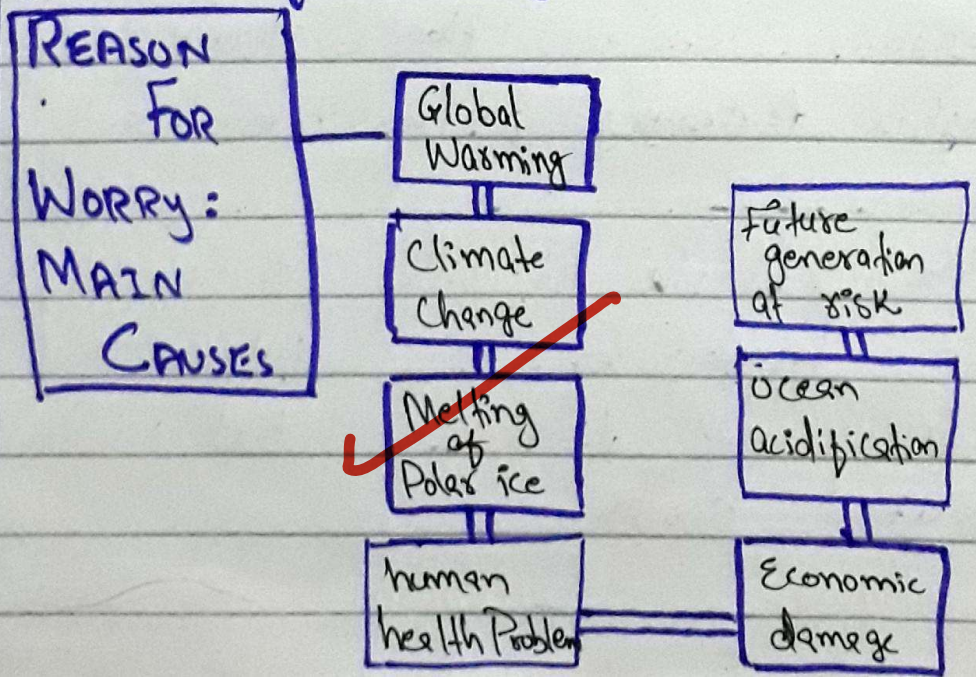
Q Why are Scientists worried about the increase of Carbon Dioxide in the atmosphere?

1. Carbon dioxide:

CO_2 is a green house gas naturally found in the air. It is produced by burning fossil fuels, deforestation, and industrial activities, however the rise of CO_2 is changing earth's climate, warming oceans, and endangering life.

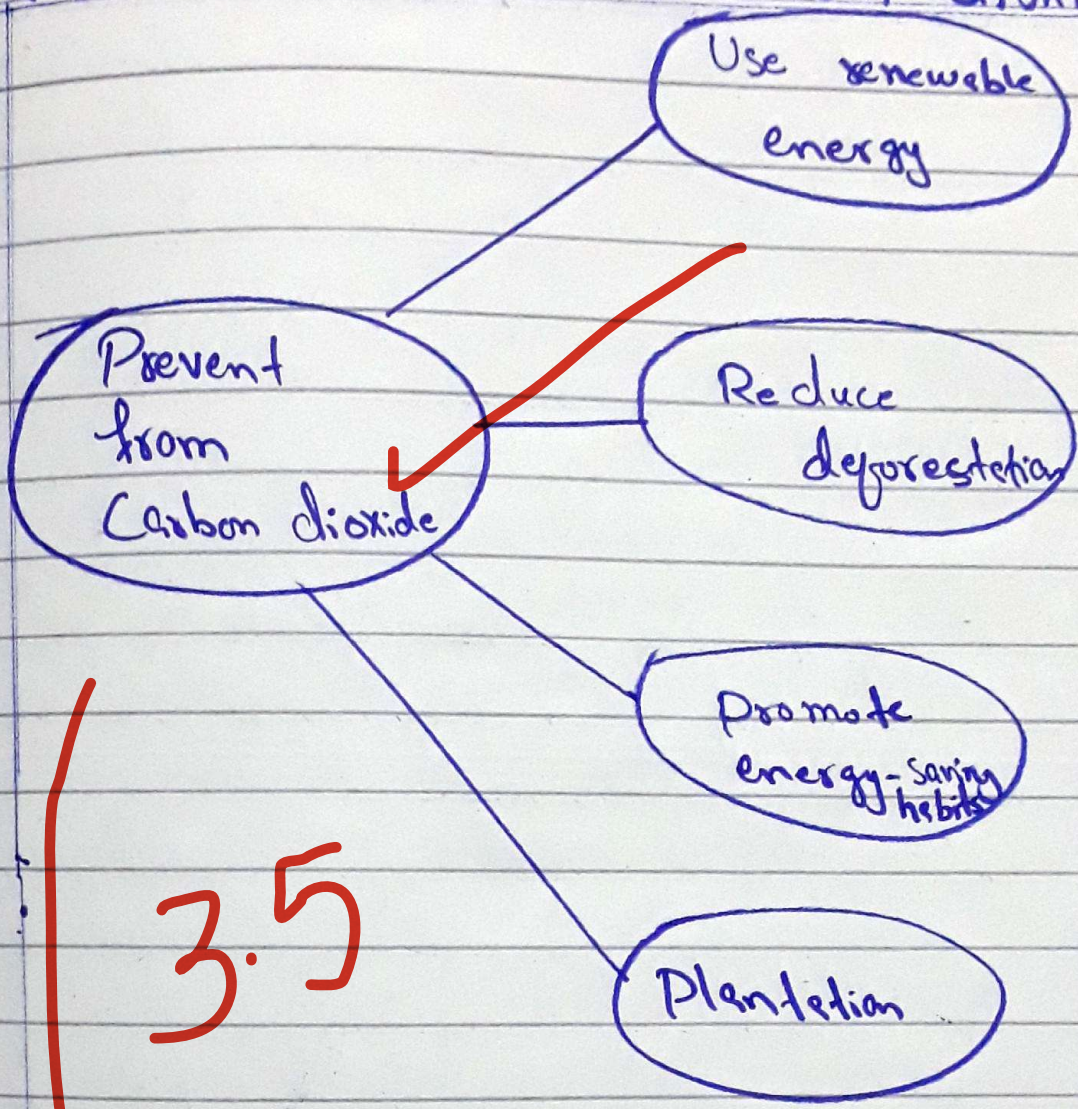
~ According to Intergovernmental panel Climate change IPCC: CO_2 levels are the highest in 800,000 years. It is the main reason for the earth's rising temperature

2. Reason for worry → Main Causes:



- Global warming: CO_2 traps heat from the sun in the air, makes the earth hotter every year, result, melting glaciers, heat waves, hotter summer.
- Climate change: Extra CO_2 changes weather patterns causes flood, drought and storms.
- Melting of Polar ice: Heat melts Polar ice, it increase sea levels which can flood cities and Islands.
- Ocean acidification: CO_2 mixes with sea water form acid, harming fishes, marines and plants.
- Human health problem: Heat causes diseas, food shortage, Air Pollution can cause breathing problem.
- Economic Damage: floods, storms, and droughts destroying farms, homes, and jobs.
- Future generation at risk: If CO_2 keeps increasing future children will live on a hot, polluted earth.

3. Prevention measure to reduce carbon dioxide



3.5