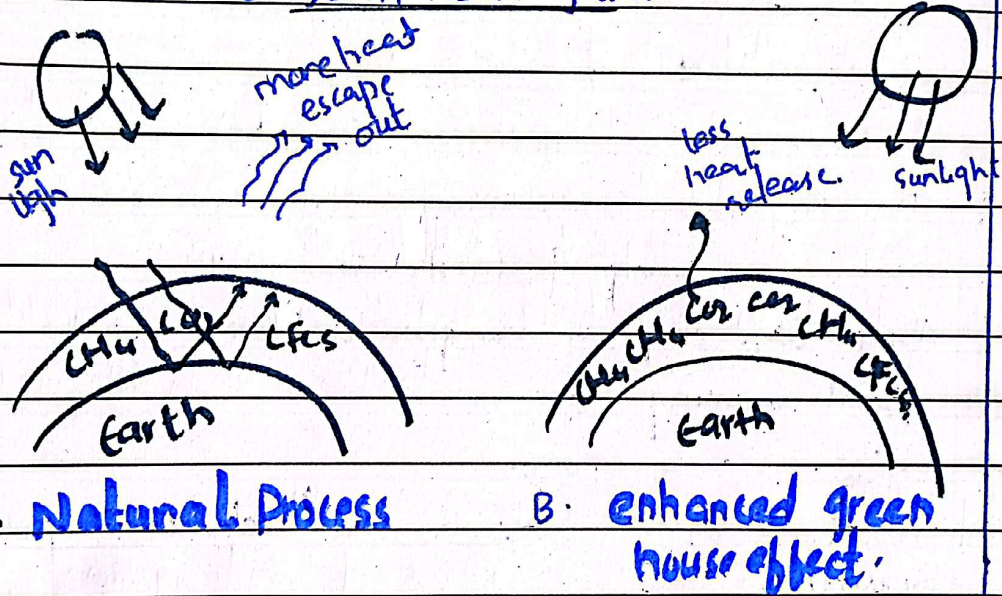


Q What is green house effect? How its is related to global warming? write effects of global warming on Pakistan.

## Green house effect

### Definition

The green house effect is a natural phenomena in which greenhouse gases trap heat radiation and maintain earth temperature. But now these phenomena is converted into enhanced green house effect due to increase in amount of green house gases.



- How greenhouse effect related to global warming.

### Global Warming:

The gradual increase in temperature due to green house gases is called global warming.

## Concentration of green house gases:

They are following types of green house gases.

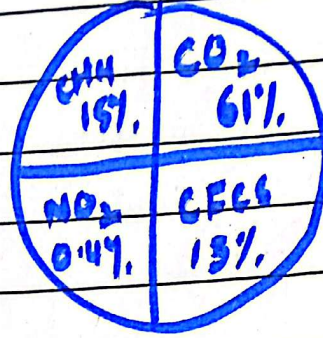
CO<sub>2</sub>

water vapours

CH<sub>4</sub>

NO<sub>2</sub>

CFCs, chlorofluorocarbon.



## • Effects of global warming on Pakistan:

They are following effects of global warming on Pakistan.

### • Increase in temperature.

In Pakistan, there is rise in temperature up to 1.5°C as to pre-industry era.

### • Agricultural damage

#### • Premature ripening of crops.

Due to global warming, there is a premature ripening of fruits and crops.

About 40% crops of mangoes destroyed due to global warming.

### • Rise in sea level.

About 8 inches rise in sea level due to global warming.

### • Humanitarian crises.

In Pakistan, about 1200 people died in Karachi due to heat waves in 2023.

### • Increase in natural disaster.

There is an increase in natural disaster such as flood, urban flood in 2023. About 3000 people died due to flood.

Q What is acid rain? Write down its effect.

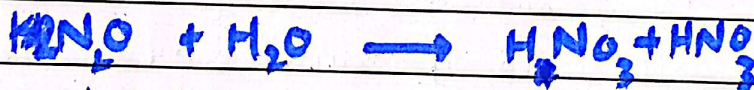
## Acid rain

### Definition

The rain which have pH value less than 7 due to mixing of certain acid such as  $H_2SO_4$  and  $HNO_3$  is called acid rain.

### How acid rain is formed?

When air pollutant such as  $SO_2$  and nitrogen dioxide ( $NO_2$ ) mix with water in atmosphere, they are converted into sulphuric acid and nitrogen acid.



These acid fall with rain either in the form of wet precipitation or dry precipitation.

### • → TYPES of precipitation

They are two types of precipitation

#### Dry precipitation

• When acids move with air to area where the weather is dry, they fall in the form of smoke and dust.

#### Wet precipitation

• When acid move with air to area where weather is wet, they fall in the form of rain, snow.

# Effects of Acidrain

They are following effects of acid rain.

- Agriculture damage

When acid rain fall, they direct effect the agriculture, leaves directly destroyed, stop photosynthesis and inhibit the growth of plant.

- Alter the pH of soil

When acid rain fall on ground, they alter the pH of soil, decrease their fertility.

- Causing a death of marine life

When acid rain fall on ground, the water flow down into river and ocean, changing the pH & nutritional value of water and as a result death of marine animal occur.

- Marble damage

Due to acid rain, the marble of Taj Mahal become fainted and lost its beauty.