

"Global Warming / Climate Change"

"Climate change does not respect border; it does not respect who you are rich and poor, small or big. Therefore, this is what we call "Global challenges" which require Global Solidarity."

(Ban-Ki-moon)

This is an International environmental problem, which is instigated by human activity. This is a great threat for globe world.

According to IPCC

An average temperature of the earth atmosphere increase gradually. 1.2°C increased 1850-2022. In 2040 its temperature further increase, will become 1.4°C . In 2100 temperature increase will become 5.8°C . If the temperature rises 3.5°C then 70% survival on risk.

According to NASA

1 $^{\circ}\text{C}$ increase 1850-2022

Background of Global Warming

1- Industrial and agricultural revolution have contributed toward social, economic, political, cultural and scientific development of world.

But due to these revolution the intensity and frequency of human interference with in the natural setting of environment has increase, which resulted into instigation of global warming along with many other problem.

Causes of globe warming

1 - Green houses Gases

GHGs have ability to absorb heat and trap heat, and ability to scattered a heat. Most harmful gas is CO_2 . CO_2 61% participate in globe warming
 CH_4 - 15%, CFCs - 11% and N_2O - 4% participate in globe warming.

2 - Green House Effect

Green house effect is a thermal process in which the heat get trapped into the atmosphere under the action of GHGs, this process green house effect. It is a normal natural process to maintain climate. Now - normal, natural process G.H.E has been converted into an enhance G.H.E. It has been speeded up due to green houses gases.

3 - Population explosion

The population of the world consistantly Increase.

US - Sensus

1960 census the total world population was 3-billions. 2000 census total population 6-billions. 2022-census total world population is 8-billions. Increasing in population create problem of enviroment. Because needs and wants also increase and increase in solid waste, increase the number of people resulting deforestation. Due to huge population pollutant also increase.

4- Massive Deforestation

Globe Forest Watch

more than 10-million hectre deforestation for purpose of Industrial usage, Furniture and many others. They are the Carbon Sink. Carbon emission is world problem and Carbon Sinks decrease and Carbon emission increase.

GFW → 1950 - CO₂ emission 300ppm
Now - CO₂ emission 420 PPM.

5- Urbanization

60% Population lived in Urban Areas. Migration Increase due to employment, Better education, better health facilities. Industrial revolution also came in Urban areas.

6- Generation of Solid waste

The population of the world increase consistently then generation of solid waste also increase.

Increase CH₄, CO₂, NO, gases due to increase. Solid waste.

7- Rapid Industrialization

Steel Industry produced CO₂, CO, SO₂, VOC and Fertilizer Industry emit CH₄, CO, NO₂, SO₂ pollutants. Pesticide Industry, cement Industry, paper Industry also emit the CH₄, SO₂, CO₂ etc.

Industry increase rapidly then pollutants also

8 - Weapon of Mass production

Toxic powder has been used in weapon. This powder very dangerous for environment. For example Japan Incident, Hiroshima, Nagasaki. Missiles testing - direct heat enter into the atmosphere. Nuclear weapon are very dangerous for humanitarian.

9 - Electric Appliances

Ozone depletion due to CFC, gases. Major emitter of CFCs which AC and Refrigerator.

UNEP - 1972

More than 15 million tons CFCs produced in 120 years

Its cause of ozone depletion.

10 - wild Fire

Agricultural remains burns are very harmful for environment, produced CH₄ abundant.

Due to globe warming, in 2019 Australian wild fire, 2021 Amazon wild fire, Blochistan wild fire, wild fire increase the CO₂, Aesh, and increase in temperature.

11 - Depletion of ozone layer

Ozone layer works as filtration solar radiation (ultra violet.) It is a naturally exist of solar radiation. Due depletion of ozone layer increasing in number cancer cases and eyes diseases.

According to USPA

1990 - 2000

9 - 10 million skin cancer cases reported in USA and European country

1 - Molina and sheewood - 1973

1st time reported that ozone layer depletion

2 - British Antarctic Survey - 1985

3 - Montreal protocol - 1987

4 - Enforce - 1989

Depletion of ozone layer which is mainly caused by the ozone depleting including CFCs.

Resulting into more penetration of heat as compare to the past which is further aggravated the risk of globe warming.

Effect of Global warming

- It has its social effect
- It has its environmental effect
- It has its Economic effect
- " " " Political effect
- " " " Cultural effect.

1 - Global warming is a direct threat to life.

Increasing in temperature of environment are caused many diseases.

IPCC

2016 warming year and 2019, 2020 warm close to the 2016.

In 2021 in Kuwait 60°C temperature records may June.

Jacabad - 56°C temperature in 2021

April 2022 - warmest month in the history of South-Asia

London City 2-time record 40°C in history.

Australia, Africa, Europe, America, USA, Asia, Middle East facing global warming threat.

NCEPD

"In July 2023, the average global temperature

reached 17°C after a gap of seven years.

on Tuesday the average temperature hit 17.2°C

climate change is an existential threat?"

"

IPCC

In India 4500 deaths due to heat waves and more than 1600 deaths are reported London city along with other with in a week."

2- Melting of Glaciers / ICE loss / Break down ice sheet

Fresh water are present 3%, and salt water exist on the earth is 97%. But Fresh water more ^{than} 79% in form of ICE.

Due to melting of ice ~~are~~ ^{will be} caused of Scarcity of fresh water.

According to International commission on Ice

African glaciers shrinking 82%, chinas 25%, Russian 5%.
New Zealand 11% and North USA 20% Shrinking.

NASA

- Himalian glaciers most rapidly melting.
- Arctic ice 11% loss per decade.
- Intarcita are become part of the Ocean.

3- Rise of Sea level

IPCC

8-inch sea level increase due to ice melting and heavy rain, rain pattern change.

in Pakistan 2022 - 8 pattern of rainfall.

~~is~~ i) Threat to coastal population

50% globe population living in coastal Areas. Also threat for economy, huge displacement of people very costly process and Refuges.

Maldeep, Indonesia, Philippines faced this challenges. caused by poverty, Homeless, unemployment, economic ~~of~~ damage.

4- Rising Intensity of Frequency disaster

Floods

2017 Lahore faced flooding and 2020 faced Karachi, 2022 Blochistan, Sindh face huge flooding.

India, Bangladesh and China also faced flooding every years.

2022 - Pakistan.

More than 5000 km road damage and 500 bridges damage. 10000 livestock animals dead and more than 1500 human death in 2022. Three Crore people homeless and also agriculture damage. In 2022 Pakistan \$60 loss.

Terrorism damage and law and order damage
2023 - 2030 → 348 billion loss will.

5- Effect on Agriculture.

Agriculture are very affected by flood in 2022. wheat production decrease, mangoes production decrease 4 to 5% also mangoes export drop and economic front loss. Due to changing the rainfall pattern damage wheat crops are cause food insecurity. Inflation also increase due to import wheat.

6- Threat on human health

WHO

3.5% dengue cases, 3% malaria cases and 3% Typhoid cases reported, are contributed by the climate change. Human loss and cost increase and allocation of resources decrease.

7- Increasing Conflict

Conflict rose up due to globe warming between developed and developing countries.

Conflict b/w state.

Pakistan and India conflicted by Indus river treaty 1960.

China, India, Nepal are conflicted due to Tibetan glaciers.

with in the state.

Punjab — Sindh water conflict.

Conflict on emission

China	36%
USA	15%
Europ	9%
India	7%
Russia	5%
Pak	0.7%

Mitigation and Adaptation measure.

The country should be focus on stabilize the GHG's and cut off carbon energy. Adopt renewable energy sources.

Increasing the forest cover and control deforestation. Urban areas should be planted.

Sustainable transport, Ban on older model of vehicles. Electric bike, decent public transport system.

Should be housing indoor plantation.

The people should be awareness from environmental education.

Religious use regarding environment.

The role of environmental institution should be strengthened.

The country should be implementation of international agreement, Kyoto protocol.

Strengthen the management disaster, Boats, Air source, well skill team.

Improving the the international cooperation.

