

Q No: 2

- (a) Describe the evolution of environmental governance in Pakistan

Answer = 0

1. Introduction

Since Independence, Pakistan upholds important role play in climate governance nationally and internationally. As seen in visible role of International conventions and treaties, Pakistan also adopted climate governance locally by National climate Act to climate institutions and policy-orientation. While active role in climate governance Pakistan lacks institutional capacity, counter-measures and protection infrastructure.

Evolution of Climate Governance in Pakistan

According to Maleeha Lodhi, former UN representative, "Climate change has become Pakistan's most

formidable adversary — one cannot be defeated by guns, but by climate governance, vision and global cooperation"

1. PEPA: Pakistan Environment Protection Act, 1997

Pakistan's first ever climate measure to uncover the climate induced vulnerabilities. PEPA, 1997 is best based on multiple directive principles and practice practices including:

- Climate Monitoring
- Climate Inspection
- EPA's: Environment protection Authorities
- Enforced International standards

2. National Environment Policy, 2005

Climate Mitigation Policy, first ever documented framework of Pakistan Environmental law. National Environment policy was adopted in 2005 as concerning to global warming and national chronic threats.

Objectives of Pakistan's National environment policy, 2005

1. Reduce environmental pollution
2. Sustainable Development should be promoted
3. National resources should be conserved; reduce over-use.
4. Increased forest covers
5. Strong enforcement on illegal environmental degradation.

3. National climate change Policy, 2021

NCCP, 2021 mainly focuses on:

- Water Security
- Food Security
- Climate Resilience
- Green Energy Transition

4. National Adaptation Plan, 2023

The primary focus of National adaptation plan, 2023 is to promote climate resilience agriculture, Water and eco-system.

- Reduced Carbon Emissions
- Protection of Wild-life

Pakistan's Climate Governance

↓
National Policies

↓
Institutionalize Climate Resilience

↓
Wild-life Protection

↓
Increased Forest Cover

↓
Strong Global Climate Diplomacy

↓
Reduced Carbon Emissions

↓
National determined Contribution (NDC)

Institutionalization of climate resilience infrastructure

1. NDMA's : National Disaster Management Authorities

Federal authorities for climate induced vulnerabilities response. NDMA's works on frequent responses, pre-cause measures and prevention mechanisms.

2. NDMA's → PDMA: Provincial authorities

Provincial autonomous authorities in Pakistan for climate response and prevention mechanism.

Conclusion

Pakistan has played significant role in climate governance since independence, but still face challenges due to under-development and weak enforcement. Experts believe that climate governance in Pakistan is less in-practical more in written.

NO: 2

- 1) What is climate change?
What are the key hindrances
in resolving the climate change

Answer = 0

1. Introduction

Climate change is known as existential threat to human existence because it affects human health, necessities: water, food, air, and environment through heating temperature induced by global, natural, and human made factors. The major factors behind un-stoppable climate change is weak enforcement of global law and conflicts of major powers.

2. Understanding Climate change

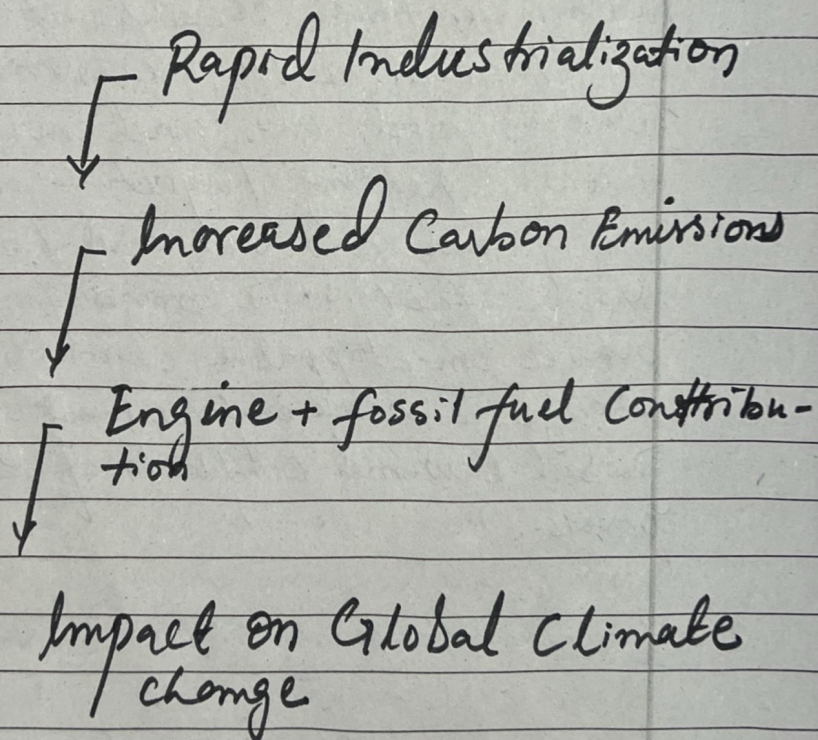
Climate change is a result of 'rise in temperature of the world' mainly through dual factors: Natural and human-made.

1. Human-Made factors affecting climate change

(a) Industrialization

According to International body on climate change, IPCC stated in climate report of 2023, "Planet has warmed 1.1°C since pre-industrial era."

How it works:



b) Burning Natural Resources: Especially wood and fossil fuels

Burning wood for

living comforts or deforestation for comfortable living standards leads to massive deforestation, as plants are known as carbon sinks

Deforestation

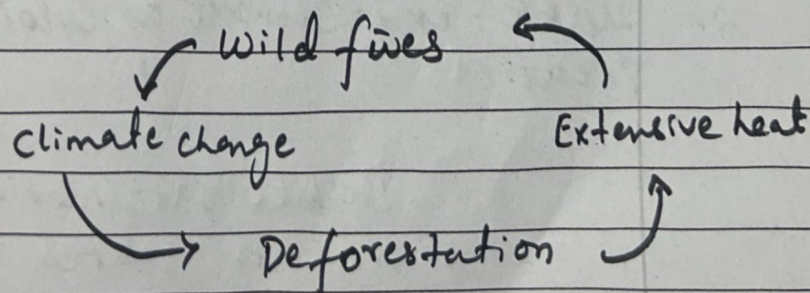
↓
Reduced Carbon sink

↓
Increased Global warming

2. Natural Factors affecting climate change

a) Wild fires: Natural eruptions

Massive natural wild-fires also add extensive heat to existential global warming, leading to rise in local pollution and global warming.



Mountain Explosives and Volcanoes

Natural Volcanoes are also known as fundamental addition in natural induced climate change.

3. Key Hindrance in resolving the climate change

1. Debates over "who contribute vs who pay"

Pakistan stands at most vulnerable position impacted by climate, despite less contribution. The major factor of climate warming is Carbon emissions and according to UN, climate overview look of Pakistan report, 2022, "Pakistan contributes less than 0.9% of global average standards."

2. Weak-Enforcement of Global Treaties

Despite ratification on global treaties, states are unwilling to adopt climate

resilient infrastructure and carbon reduction.

Top Contributor According to UNFCCC

China = Top (1st)

USA = 2nd

3. Power of Dominance and Hegemonic behavior

As evident globally Trump "Walkout" international treaty of climate change and warming. This under-estimation shows law is written for only weak ones not for super powers.

4. Local and regional Governance issues

Not only at broader aspect countries like Pakistan under-develops climate mechanism because climate infrastructure requires economic support and cooperation.

Conclusion

climate change has become Pakistan's and global threat in terms of

Water Scarcity, food insecurity,
decline agriculture, increased
famine risk and environmental
degradation, However, the debate
is still ongoing that who will
be the next to open the door
of written documents, because
despite multiple treaties
states are un-willing to cooperate
nationally and internationally.

Era of Global Warming had Ended; This is an Era of Global boiling. Justify and give measure.

Answer = 0

1. Introduction

On 13, July 2023, UN-Secretary-General famously declared that "Global Warming has ended and the beginning of global boiling has started." The statement clearly highlights concerning impact of global warming on Planet (Earth). As per the report of IPCC, 2023, "Planet has warmed 1.1°C since pre-industrial era, by rapid industrialization and human-induced factors. However, it can be reduced by mutual cooperation and global binding with transparent and enforcement.

2. Evidences of "Global Boiling": A living reality

1. Extreme Heat Waves across Continents

Evidences: 2023-24 considered to be record-breaking years in history, Crossing 50°C in the regional parts of South Asia and Central Asia (WMO, Data)

2. Record-breaking Weather Events

According to World Bank data on Pakistan climate impact, "Pakistan witnessed record breaking floods in 2022, with a loss of around 1500 lives and more than 30 billion infrastructure loss."

Collective Data: Pakistan Economic Forum, 2022 and 2025

Mass floods in Pakistan impacts more than:

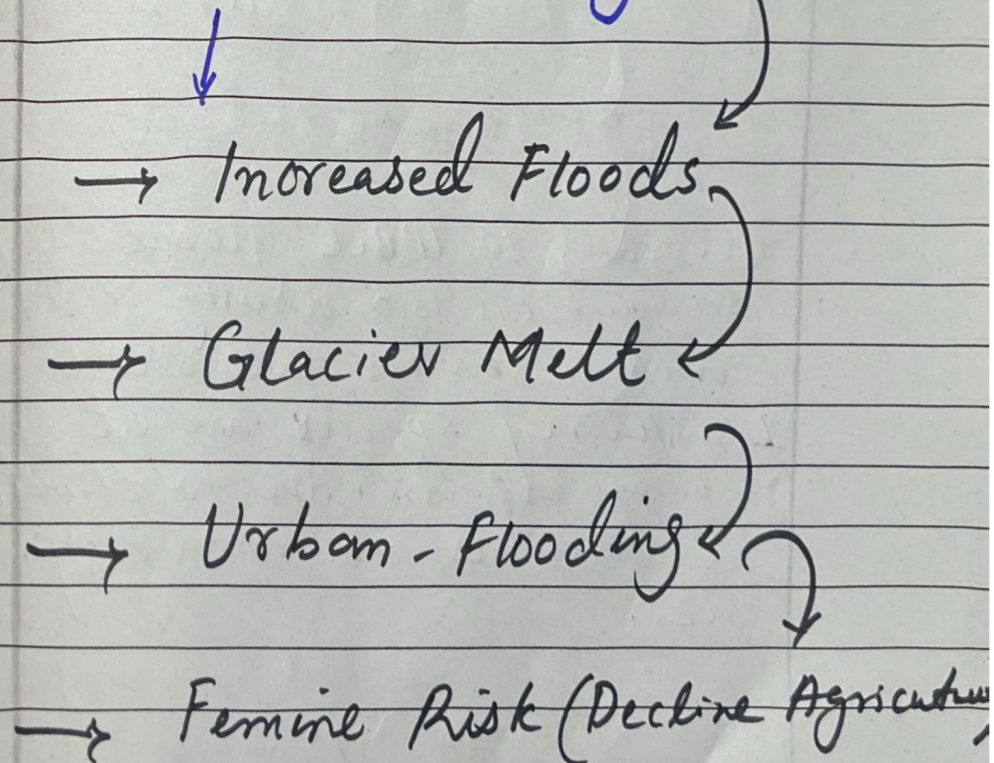
Deaths	2500+
Live stock	12.2 Mn+
Infrastructure	50+ billion US dollars

Collective Data of 2022 and 2025 floods

3 | Rapid-Glacier Melting

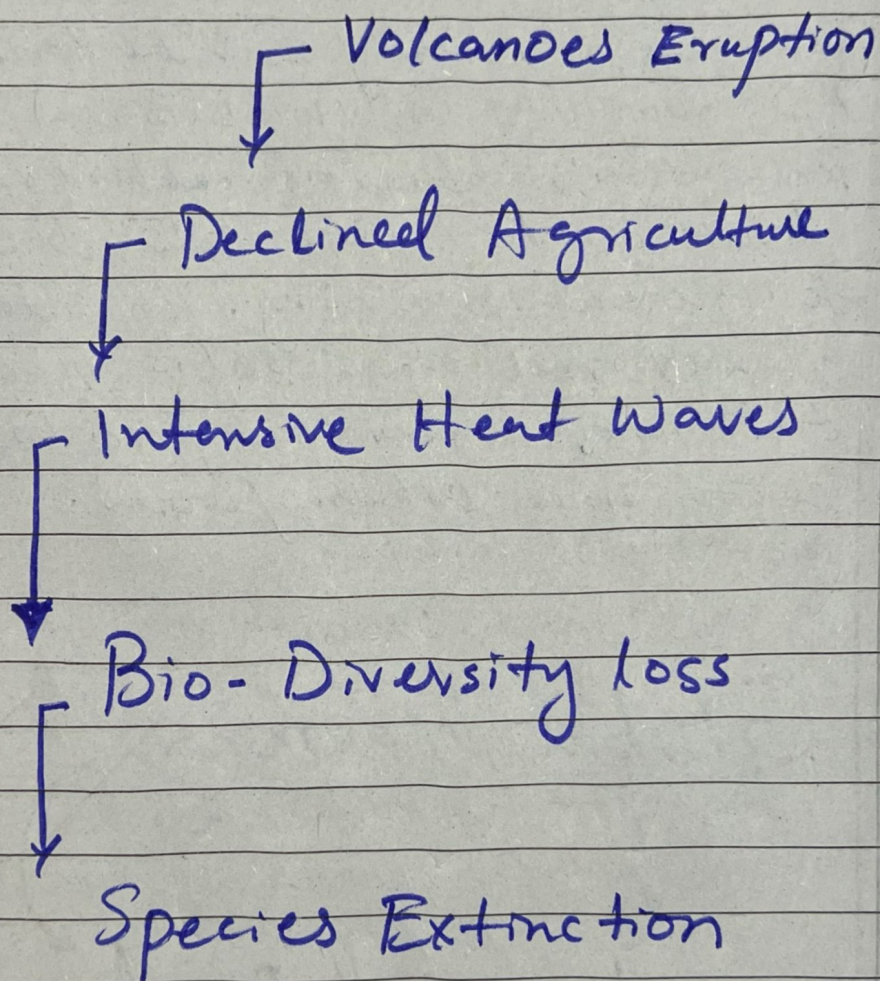
Glaciers known for fresh water transitioning to complete depletion due to global warming, specially in Pakistan. According to WB (World Bank) Pakistan's glacier melting hit double rate since 2015, due to global warming. The intensive glacier melting results glacial outburst, water and food insecurity and urban floods.

Global Warming



4. Impact on Climate-change

a) Wild Fires



According to IPBCC, global assessment on bio-diversity and ecosystem services, that over 1 million of species are at risk of extinction due to climate vulnerabilities and rising temperature.

Measures to Reduce Global Warming

1. Global Cooperation and Integration

States are enforcibly required to enforce global cooperation not only by ratification on documents but through practical measures like carbon emissions reduce, climate diplomacy and local strengthening of climate mechanism.

2. Strengthening local and national Governance

Following international standards, states need to localize climate policy with strong-enforced mechanism and needs to transform towards sustainable infrastructure

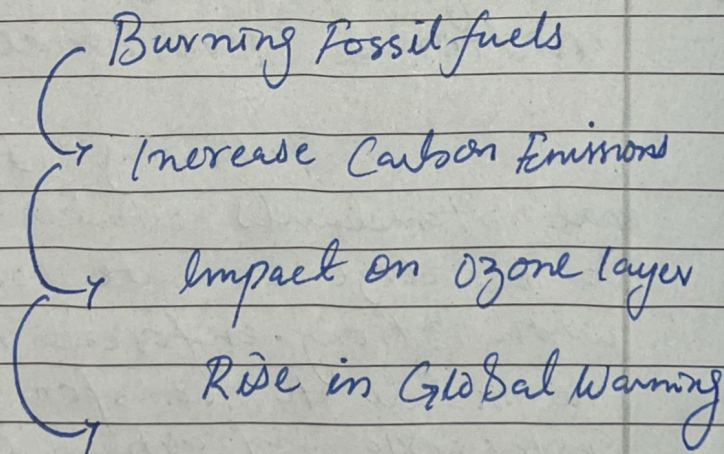
3. Transitioning towards Renewable energy

Energy sector is major actor in climate governance

where non-renewable energy enjoys dominance in energy generation. yet, non renewable is also a threat to climate change, however, countries need to transform their local capacity into clean and renewable generation.

Reduce Dependency over-fossil fuels

Fossil-fuels specially burning bw coal is a major factor in global warming.



Conclusion

Global warming is not a myth but it has become a chronic reality.

However, states need to mobilize frequently on the climate and global warming to reduce future chronic impacts through local government reforms, international cooperation, multi-lateral mechanism and natural impacts (Reforestation and Afforestation).