

Qno 2:-

Introduction:-

Environment pollution is a global issue which are causing health problems and affect on Economy and Ecosystem. Effective management is crucial for protecting human health and preserve Ecosystem and supporting Economic development. A comprehensive strategy is necessary like policy making, technology innovation, public awareness & education. By adopting such measures we can reduce pollution, protect Environment and Enhance Sustainable development. A collective efforts of government Industries and civil societies is required to mitigate Environment pollution.

"Think Globally, Act Locally"

The Importance of Environment pollution Management is

↓
To protect Human Health.

↓
To preserve Ecosystem

↓
To support Economic Development

A Comprehensive Approach is necessary to mitigate Environment pollution

(i) Air pollution Control:-

Air pollution is the burning is today's world. A comprehensive plan is necessary to mitigate this issue.

According to World Bank

Around 6.5 billion death occurs due to Air pollution.

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To combat this ~~etc~~ issue enforce strict emission standards for vehicles, transport and power plant. Encourage the use of Renewable Energy to combat this Issue. Implement Energy efficiency technologies in Industries and building

2. Water Pollution Control:-

(i) Waste Water Treatment Implement

Ensure that all waste water will be treated before releasing in water bodies.

(ii) Reduce Chemical use:-

promote sustainable agriculture practices and reduce the use of chemical pesticides and fertilizers.

(iii) Water Management policy:-

Effective Water management policy to combat water pollution. This policy aims to manage country's water resources, effectively ensuring

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equal water distribution, and purifying the water.

Land pollution

(i) Implement Waste Management

Implement effective waste management strategy including recycling and composting.

(ii) Identify Contamination sites to reduce pollution

Climate Change Mitigation

(i) Green House Gas

Emissions :-

To reduce GHGs emission implement carbon pricing and ~~create~~ clean energy strategies.

(ii) Encourage Sustainable Land Use :-

Encourage sustainable land use like agriculture and Forestation.

(iii) Plantation Drive

Encourage to

plantation drive : to reduce climate change.

Public Awareness and Education

- (i) Launch Public Awareness campaigns to educate people about the importance of Environment protection.
- (ii) Integrate Environment Education Integrate Environment Education in curricula to promote Environment awareness.
- (iii) Encourage Economic participation

Enforcement and Regulation

- (i) Increase Inspection and Monitoring Regularly inspect vehicle ~~less~~ and monitor industries to combat Environment pollution.
- (ii) Impose penalty Enforce penalties for non-cooperative members and Industries.

Conclusion:-

14 Environment pollution is a serious issue in today's world. By implementing above strategies, one's can effectively mitigate this threat. Effective management is crucial to combat this evil. Pakistan launched Clean Air project 2020 to combat this issue. A Strategic plan and collective efforts is required to mitigate Environment pollution.

Qno6

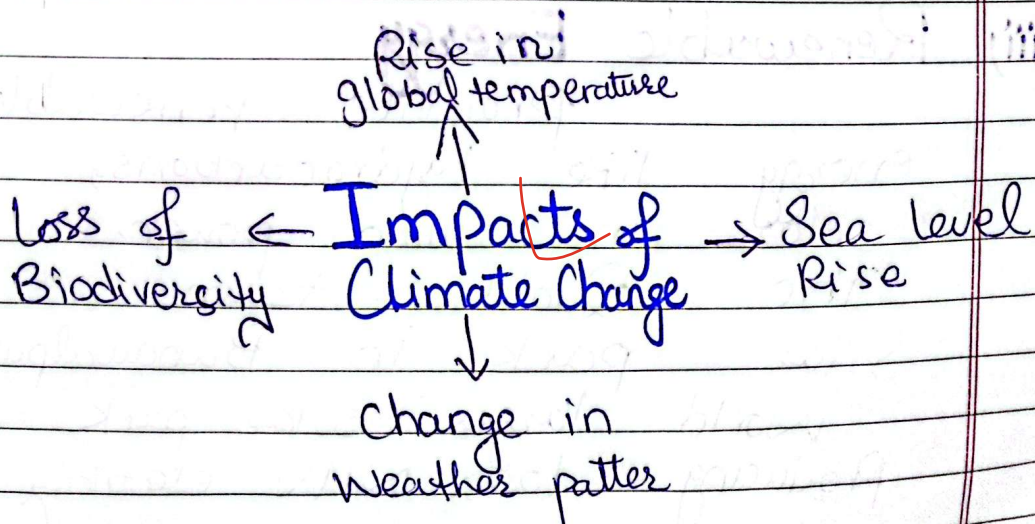
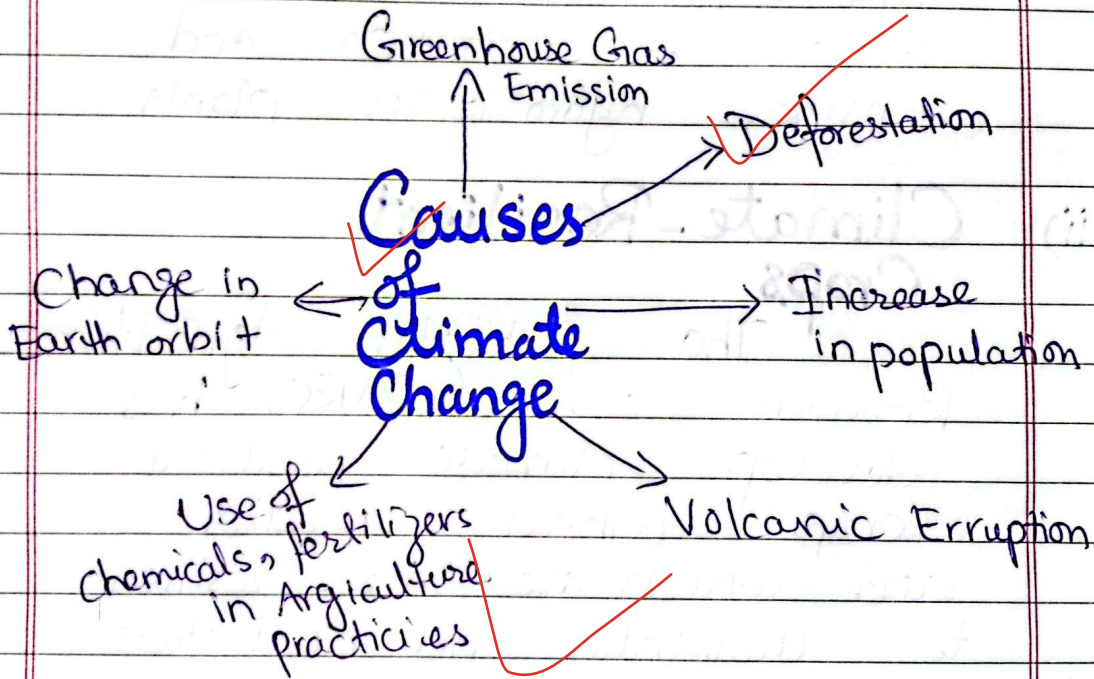
Climate Change:-

Climate change refers to a long-term warming of planet due to an increase in temperature primarily caused by Human Activities, such as release of Green House gases Carbon dioxide Methane in Atmosphere. Pakistan is highly vulnerable to climate change due

to its Economy, geography and limited Resources

According to Climate Change Performance Index CCPI

Pakistan Ranks 15th in this year most vulnerable country to climate change.



Climate Change

Adaption Measures in Pakistan

(i) Enhance Water Shortage

Enhance water shortage capacity and reservoirs to store water for irrigation and make hydro water plants.

(ii) Climate-Resilient Crops

The Pakistan Agriculture Research Council (PARC) has develop climate resilient crops wheat varieties which are more resilient to droughts and heat stress.

(iii) Renewable Energy

Promote renewable energy like hydrocarbons, solar and wind power. The Quaid-e-Azam Solar park in Bahawalpur world largest solar park producing 1000, MW electricity

(iv) Sustainable Forest Management

promote sustainable forest management. Such as forests and mangroves. Hundred billion tree ~~tree~~ project launched in 2018 to protect climate.

(v) Early Warning System

Early Warning System for flood, droughts and Heatwaves to enable timely evacuation.

(vi) Clean Energy Technologies

Encourage to adaptation of clean Energy Technologies like Green roofs in urban areas, which help reduce urban heat island effects and improve air quality.

vii- Ecosystem Based Adaption

The government launched mangroves plantation in coastal Areas which helps to protect shorelines. ~~on~~ Promote Sustainable forest management to maintain

forest ecosystem.

(iv)

Public Awareness and Education.

The government should arrange public awareness programs related to climate change and add topic in curriculum to protect climate change.

Conclusion:-

Climate change is not a myth it is a reality. For effective combat this effective measure should be taken and collective efforts is required to mitigate climate change. By implementing these adaptation measures Pakistan can reduce vulnerability to climate change and promote sustainable Development.

"Climate Change is no longer some far-off problem; It is happening here, It is happening now."

Barak Obama

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Qno 4:-

Biodiversity and Biodiversity Loss

Bio means "life" and Diversity means "all types of species living on ~~one~~ Earth". Biodiversity is all the different kind of life living on Earth. the variety of plants, animals, fungi even microorganism like bacteria that make our natural world. Biodiversity loss refers to the decline of species as well as ecosystem. The loss of biodiversity can have severe consequence for ecosystems, human, health and the economy. According to Report, the Amazon River has lost 17% of its forest cover in the past 50 years, ~~this~~ leading to the loss of Biodiversity and lost of iconic species.

Levels of Biodiversity

1- Genetic Diversity:-

This refer to the variety of Genes within

Species or Population. For example Mango are many types Anwar, Latoor, Sindhri and they all grow in different regions.

2- Species Diversity:-

This refers to the variety of species present in Ecosystem. For Examples The Mountain regions different in colour Brown and include in many other species such as deer, rabbits.

3- Ecosystem Diversity:-

It refers to the variety of different habitats that occupy specific area. For Example, deserts, wetlands, Forests.

Importance of Biodiversity

1- Environmental Service:-

Biodiversity provide essential environmental services such as control climate change, Soil Nourishment, control food chain. and play critical role in the protection of Environment.

2- Food Security

Biodiversity is crucial for Food Security. It maintain crop and Animal Diversity and helps in Survival of food security.

3- Use in Treatments:-

Biodiversity contributes to Human health by providing medical plants and used indigenous plants for the treatment of natural diseases on traditional knowledge.

4- Generate Economic Benefit:-

Biodiversity generate economic benefits through tourism and culture and generate incomes and jobs.

5- Enhance Ecological Resilience

Biodiversity enhance Ecological Resilience by maintaining ecosystem balance and reduce ecosystem collaps.

Causes of Biodiversity Loss :-

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1- Population exploitation and Consumption pattern

The growing human population and unsustainable consumption pattern leading to habitat destruction, over exploitation and pollution.

Pakistan ranks on number 5th in population.

According to Global Assessment Report 2019

1 million species face extinction due to human activities.

2- Climate Change

Climate change is disrupting species. Climate change occurs due to the human activities.

According to Food Agriculture Organization

13 million hectare of forest land loss annually, due to human activities. Human cut trees for making furniture, and other needs.

3- Over Exploitation of Resources:-

Over exploitation of Resources like ~~the over~~ Hunting, over fishing, the harvesting of plants and trees, has contribute to biodiversity loss.

According to Millinium Ecosystem Report

10% of species ~~sp~~ birds are threaten due to human activities.

4- Pollution: Water, Air and Land pollution:-

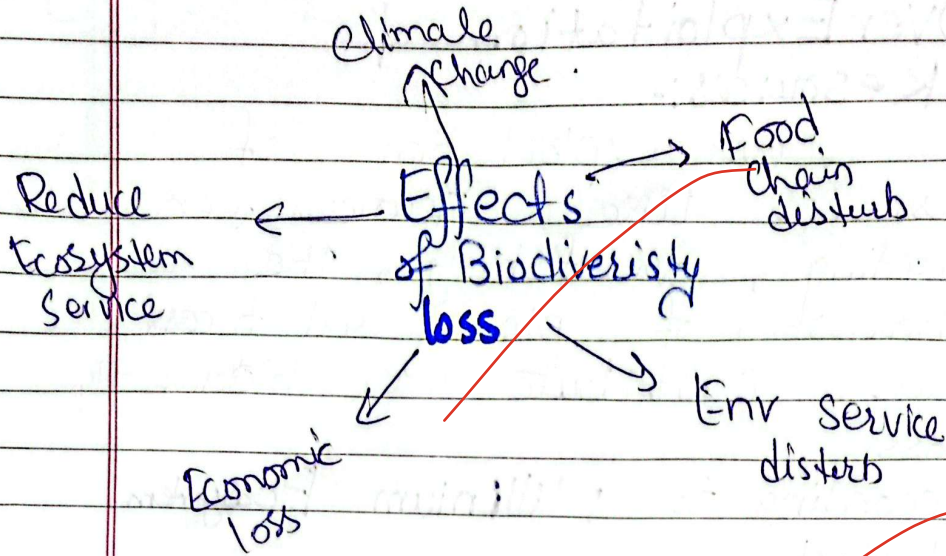
Use of pesticides and chemicals in Agriculture and Industries creating ~~the~~ biodiversity loss

5- Human Activities creating Biodiversity loss:-

Human activities such as Urbanization, deforestation and infrastructure development creating Biodiversity loss.

According to FAO

13 million hecter land of forests loss annually.



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- Controlling Measure to Combat Biodiversity loss
 - population control
 - Environment crime control
 - Sustainable use promote
 - International cooperation
 - Solid waste management
 - Establish Botanic zoological Gardens.
 - National parks.
 - Strength Institutions.