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# I. INTRODUCTION

Global warming is defined as the warming or rise in temperature of the Earth. The globe has been getting hotter every year amid human expansion and rising consumption. It poses great threats to humanity due to its impacts on food security, water availability, social development metrics and beyond. Global warming is one of the main drivers of climate change and brings with it a wave of disasters that are detrimental to humanity.

## II. THREATS POSED BY GLOBAL WARMING

(a) Increased risk of natural disasters like floods

Global warming aids the onset



of flooding and intense rainfall. Every  $1^{\circ}\text{C}$  rise in temperature is linked with 7% more moisture.

This results in heavier rainfall. High temperatures also speed up glacial melt, eventually increasing the intensity of floods.

### (b) Food security compromised amid low crop output

Global warming also affects the agricultural sector. High temperatures often lead to droughts ~~demonstrations~~ and damage the crops. According to the FAO, temperature rise over the last 10 years is linked with 7% loss of crop output in the world. This change harms output.

### (c) Threat to health amid intensified heatwaves

Amid soaring temperatures, the onset of heatwaves has also intensified globally. According to report by Dawn, around 700 people die every year in Pakistan due to



intense heatwaves.

(d) Speeds up water insecurity especially in low income countries

The high temperatures also drive up the need for water resources. Especially when low rainfall occurs, the need for water goes up. Iran faces an intense water crisis in Tehran amid low levels of water in dams.

(e) Fuels displacement and migration

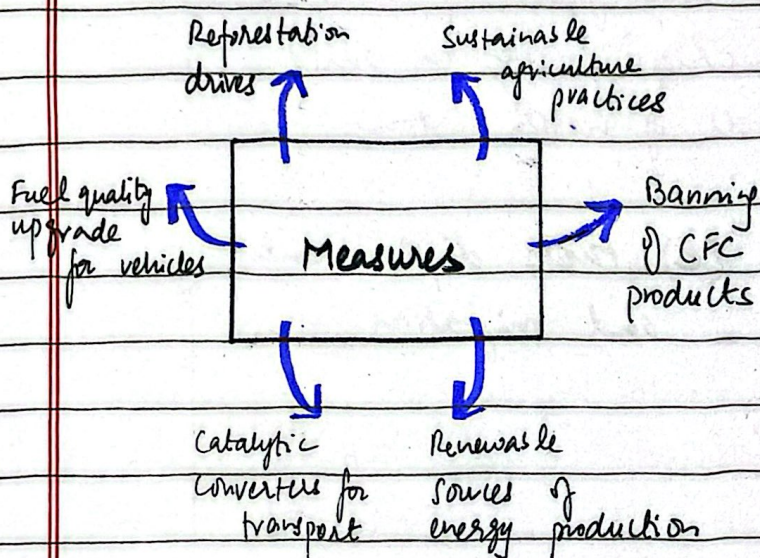
Global warming initiates mass migration of people. This is more persistent among coastal communities. Sea level rise due to global warming threatens island nations, thus leading to a shift away from the coastal areas.

(f) Declining air quality amid high pollution that leads to warming



Air quality is disrupted by incidence of pollution. The AQI has generally gone down especially in least developed nations. In Pakistan, the AQI reaches 400+ in some places. Result is an average 3-4 years of decline in lifespan, according to WHO.

### III. MEASURES OF CONTROL



### IV. CONCLUSION

Global warming presents a dark picture of the future of humanity. Impacts all ranging from food, health and water. Initiatives, however, in the form of sustainable practices can help deter the threat to humanity.



## I. INTRODUCTION

'Bio' means life and 'diversity' means many. Biodiversity thus, refers to a range of living organisms including plants, animals and micro-organisms. Biodiversity is important for any region as it helps regulate the natural processes in environment and promote a healthy surrounding.

## II. CAUSES AND EFFECTS OF BIODIVERSITY LOSS

(a) Urbanization and population rise leading to loss of vegetation

The population growth in the world is driving greater urbanization. This means forests and vegetation is converted into commercial spaces. Such loss leads to low cover, thus reducing



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Carbon sequestration, aiding global warming as a result.

(b) Overextraction of resources to cater to needs, leads to loss of medicinal resource

many modern medicines are derived from plants, fungi and marine organisms.

Overextraction and damage to such species amid huge demand results in a long term loss. Such sources are a lifeline for population and its loss has grave impacts.

(c) Economic loss amid heavy industrialization, threatens agriculture and marine productivity

The shift of economies from primary to secondary sectors driven by heavy industrialization is also a key source of biodiversity loss. Industries take up land and pollute water

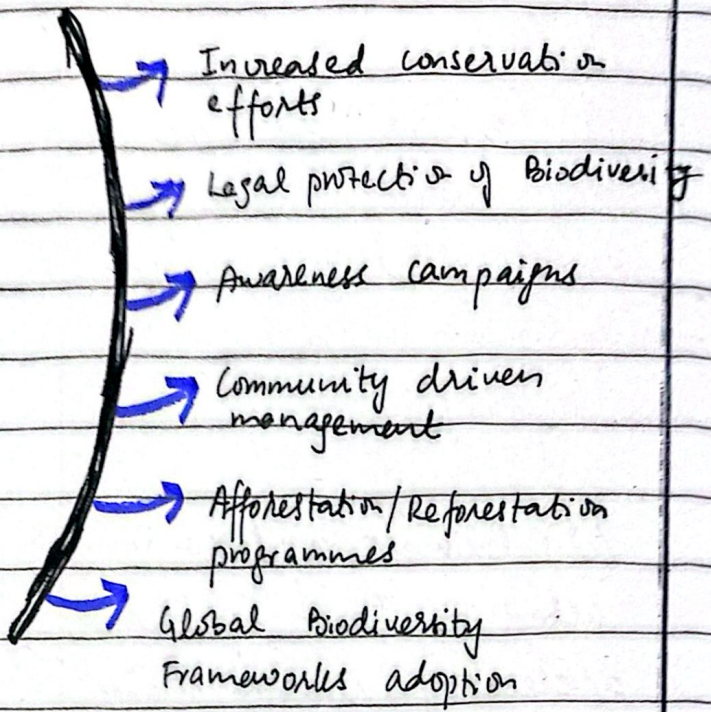
sources, especially rivers and coasts. This harms life on land and in water. Fishing and agriculture are a key source of earning for people, and gives employment to many. Thus its loss is severely impactful.

(d) Climate regulation impacted as forests are cleared, accelerating climate change

Forests and trees serve as regulators of nature. They play a role in natural processes. Trees are involved in the carbon and water cycles. Disruption of processes acceleration the climate change phenomenon, thus biodiversity loss is extremely harmful.

### III. MEASURES TO COUNTER LOSS





## IV. CONCLUSION

Biodiversity is an important part of the environment. It carries great importance for the survival and well-being of all organisms. Thus several steps in the form of collective action, awareness and global action is required to ensure biodiversity loss is curbed.



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a) Population explosion

## I. INTRODUCTION

Population explosion refers to the unprecedented or unsustainable rise of population. Production of more humans without having more capacity to accommodate creates huge problems.

## II. CAUSES

a) Lack of access to contraception

b) Lack of awareness and low literacy

c) Religious motivators for large families

d) Absence of family planning facilities

e) Early marriages in certain cultures



### III. IMPACTS

- Pressure on limited resources
- Exacerbated food/water insecurity
- Security concerns and civil unrest if not utilized.
- widens poverty and inequality
- Greater pollution and environmental damage
- Increased rate of urbanization

### IV. SOLUTIONS TO CURB

- (a) National level policies to limit children like China's one child policy
- (b) Family planning clinics and awareness
- (c) low cost or subsidized contraceptives provision

### V. CONCLUSION

Population explosion is a serious problem that needs to be dealt with accordingly through policies and actions.



## (b) Food Insecurity

### I. INTRODUCTION

According to the UNFAO, food security is when everyone has access to quality food at all times. Insecurity refers to the lack of access to food. With rising population and climate change, food security is threatened.

### II. CAUSES OF INSECURITY

#### a) Rapid population growth

World population has seen enormous rise, reducing the availability of resources for all.

#### b) Climate change effects

Food production is impacted by climate change. Intense droughts or rainfalls reduce output.

#### c) Water scarcity

Lack of efficient irrigation systems drive food insecurity.



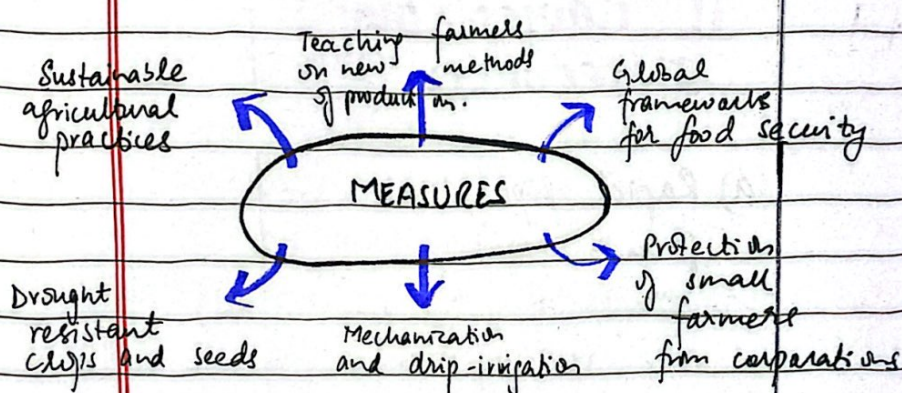
### d) Global conflicts

Conflicts like the Ukraine war disrupted supply chains, driving food shortages.

### e) Over cultivation of agricultural lands

Over cultivation reduces soil fertility, impacting output and thus aiding food insecurity.

## III. MEASURES TO REDUCE INSECURITY



## IV. CONCLUSION

Food insecurity is driven by many factors including population growth, urbanization and unsustainable practices.

New methods including mechanization and technological innovation are needed to improve food security.