

What policy options should Pakistan exercise to effectively address its vulnerability to Global Warming?

Introduction:

World Bank has declared Pakistan one of the most vulnerable country to global warming. Pakistan is experiencing melting glaciers, heavy rains, high temperature, natural disasters. To cope with disastrous impacts certain policy measures should be adopted: Promoting use of electric and hybrid vehicles, shifting towards renewable energy, effective water storage techniques, Legislative framework to protect Himalayan glaciers, Enhancing capacity by improving skills and technology, Raising awareness and improving literacy rate, Climate resilient development, encouraging citizens to grow plants, climate resilient crops and ecosystem restoration techniques.

(II) Brief overview of disastrous impacts of changing weather patterns:

Irregular rains causes floods in rivers which not only resulted into casualties but also damages the fertile land, causing food insecurity.

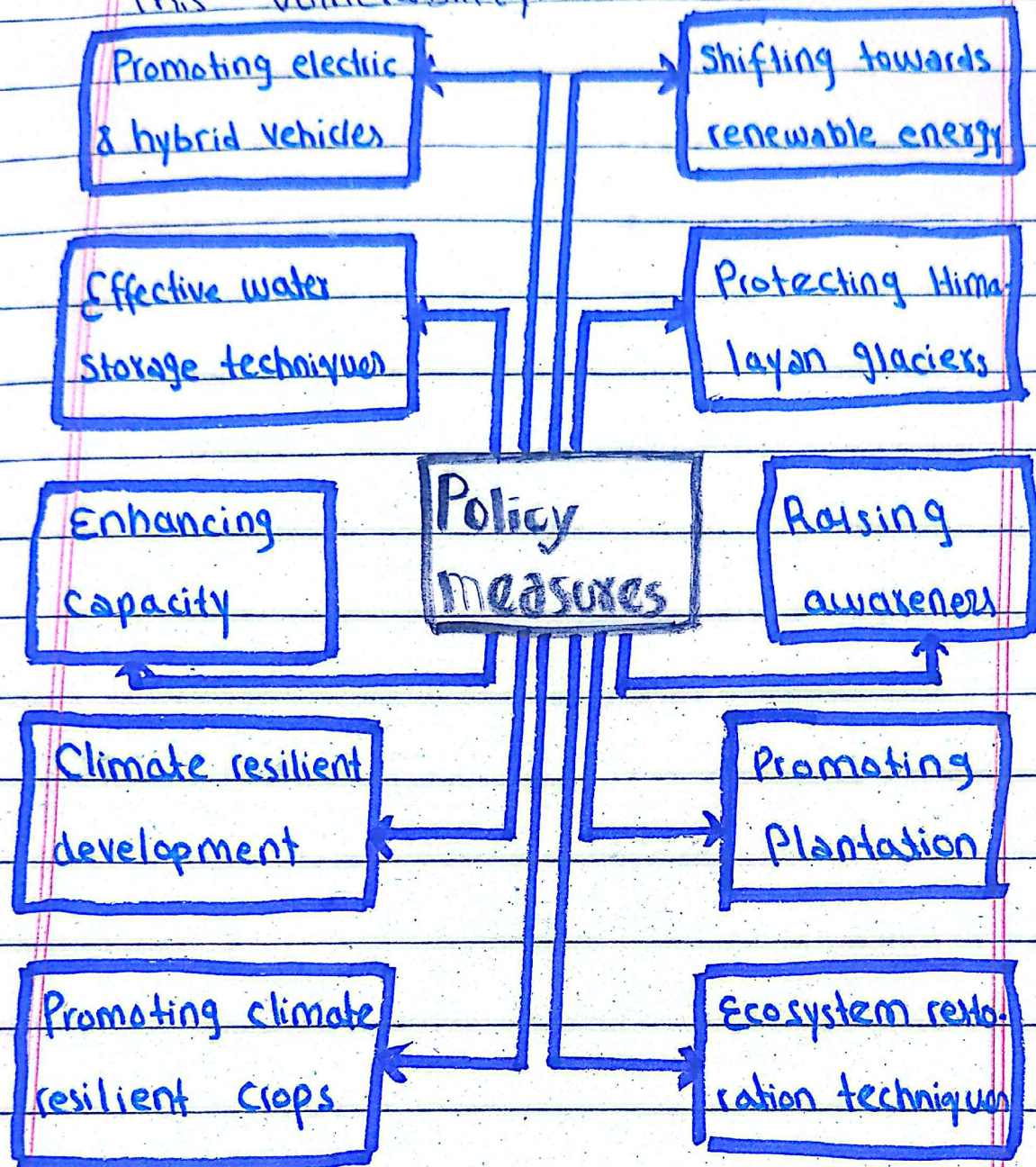
The heat waves resulted into deaths of many people in Karachi and other cities. [55]

Water insecurity is another major concerns for Pakistan. If not addressed properly would resulted into food insecurity.

(III) Policy measures to address vulnerability to Global Warming:

Although Pakistan causes only 1% carbon emission but it is the most effected country to the global warming than the developed countries. Certain policy

measures should be adopted to address this vulnerability:



i) Promoting electric & hybrid vehicles to control air pollution:

The government should normalize

Use of public transport instead of individuals cars. This will somehow control air pollution. Moreover, government should introduced electric and hybrid vehicles to reduce the emission of smoke in the air.

Pakistan social science Review suggest the encouragement of electric and hybrid vehicle to improve air quality.

ii) Shift toward renewable energy from fossil fuel:

Fossil fuels burning is the main reason of enhanced green house gases. Cutting down fossil fuels and shifting toward renewable energy resources like wind and solar will help to fight climate change effectively.

Despite the reliance on fossil fuels, Arab economies are shifting toward renewable energies to address climate change concerns.

Source: TSST

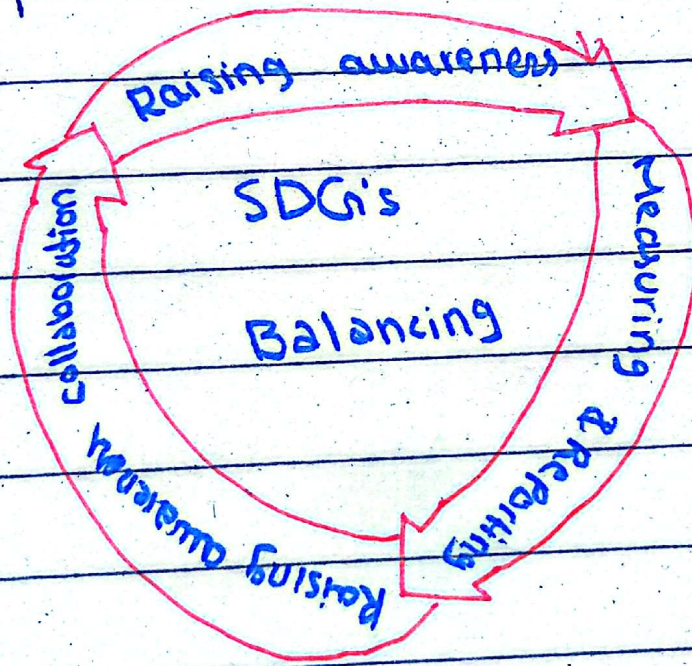
ii) Effective water storage techniques to meet the need of water scarce region:

Pakistan has become one of the water scarce country in the world due to the climate change. To address the issue of water shortages, government should construct new dams and improve the old one's. Rain water should be stored in villages and towns.

National Development Bank (NDB) has issued \$100 millions to expand Tarbela dam to meet the need of water. NDP authority

iv) Preventing Himalayan glaciers through coordinated efforts with neighbouring countries:

Himalayan glaciers are the main source of water for Pakistan. These glaciers are melting rapidly. Pakistan should coordinate with neighbouring countries to protect these glaciers and declare them as "protected region."



v) Enhancing capacity through technology and skill development:

The government should prioritize enhancing capacity through

improvement of skills and technology. Water storage techniques like desalination should be used to meet the need of water.

Government should use remote sensing and GIS to track melting glaciers to protect them.

Source: Pakistan Social Science Review

vi) Raising awareness about the climate change at local level:

There is dire need of climate journalism to raise awareness about the climate change. The recent Swat River incident could be prevented if people had awareness about changing weather.

The NDMA should use all the available resources to raise awareness and literacy rate. IPRI

vii) Ensuring climate resilient development:

NASA has recommended adopting competent policies regarding adaptation and mitigation of climate change effects. Government should construct climate-resilient infrastructure to handle droughts and floods. Also train the individuals how to survive in it.

Japan has initiated Disaster management techniques at school level, which enabled them to survive man level catastrophe.

viii) Promoting plantation to absorb CO₂ emissions:

Plants are the carbon sink. So, growing more plants will reduce the CO₂ concentration in the air by absorbing it.

The govt. should promote plantation at the local level through news media, newspapers and providing rewards in exchange of growing plants.

Plantation should be encouraged to reduce the emission of Green house gas in air. NASA

ix) Adopting climate-resilient crops to meet the need of food in food scarce region:

Changing weather patterns and irregular rains resulted into floods. These floods have destroyed the fertile lands, destroyed crop yield, causing food insecurity. The govt. should adopt climate-resilient crops to meet the need of food in food scarce regions.

Drought-tolerant crops like DT maize, flood-resilient crops like water spinach, heat-resilient crops like reports beans should be used to meet the needs of food. UNDP Climate Adaptation Program

x) Adopting Ecosystem restoration techniques:

Climate change has also severely impacted ecosystem which resulted into loss of biodiversity. Species has (~~mig~~) started migration to prevent the extreme weather conditions. The government of Pakistan should adopt ecosystem restoration techniques to prevent the loss of biodiversity.

In U.S., at the local level many groups are preserving habits and restoring ecosystems that have been damaged in past. US environmental Protection agency.

Conclusion:

Hence, from the above discussion it is clear that Global Warming has severely impacted Pakistan.

However, certain policy options can be adopted by Pakistan to address these vulnerabilities.