Question No # 02

Attempt on lined loose sheets for better practice

Pakistan's energy crisis is due to lack of strategy and political will. Discuss.

⇒ Introduction:

Pakistan has been struggling with chronic energy crisis over decades. This crisis stems from a combination of factors such as heavy reliance on imported fossil fuels, lack of energy policies, circular debt, not utilizing the Indigenous energy mix and above all the considerable political influence plays a vital role in myraid energy problems in Pakistan. In contemporary energy-striven world, energy security is a linchpin between economic, environmental and national security. Pakistan's energy crisis has trouble implications for its fragile economy and volatile security situations as the energy sector in Pakistan has always remained vulberable to external shocks and internal inefficiencies.

⇒ Energy Security Dynamics Of Pakistan

Pakistan faces significant challenges in ensuring the reliable supply of energy to meet its growing demand. Despite having gigantic potential of untapped hydel power, vast lignite coal deposits, unexplored hydrocarbons and huge solar/wind potential to produce cheaper energy; it is

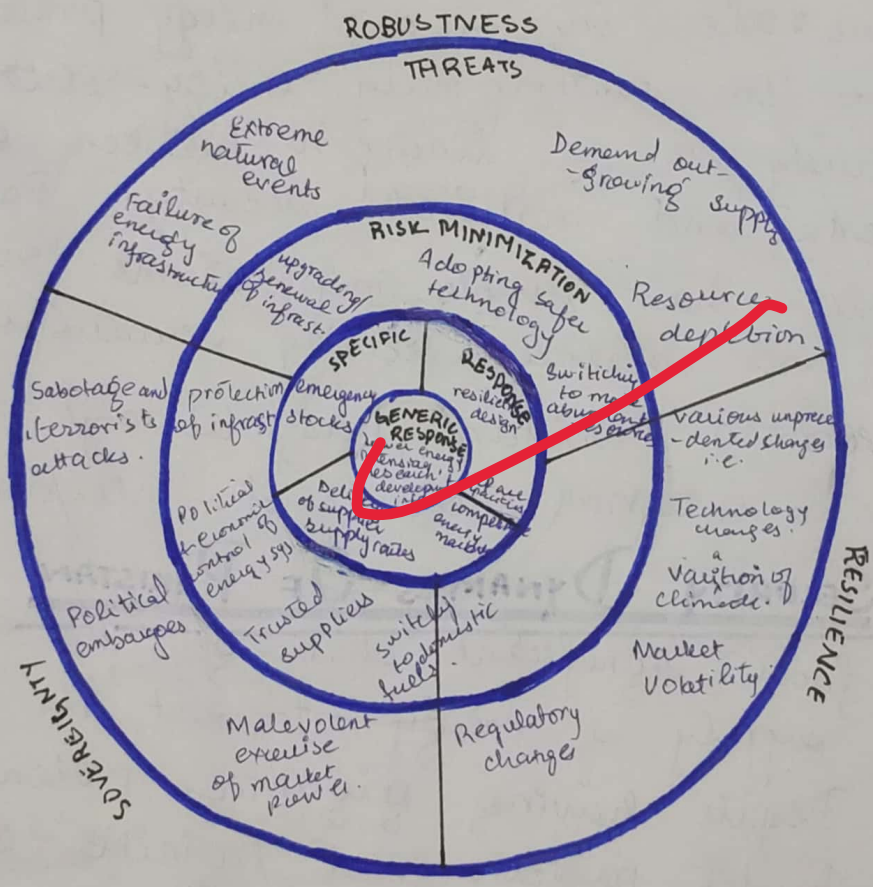
move inclined towards short-term and quick solutions.

According to UNDP energy security is defined as:

> "The availability of energy at all times in various forms, in sufficient quantities and at affordable prices, without unacceptable or irreversible impact on the environment. These conditions must prevail over the long term."

Energy security is dependent on three key elements i.e robustness, Sovereignty and resilience.

Figure – Matrix of energy security.



⇉ PAKISTAN'S ENERGY PROFILE:

Pakistan's primary energy mix comprises natural gas, oil, hydropower, coal, nuclear alternative renewable energy sources and a small percentage of imported electricity. Pakistan's energy consumption is expected to grow by 70% in the next 10 years, resulting in additional impacts of USD 6-8 billion on balance of payments.

⇉ CAUSES OF PAKISTAN'S ENERGY CRISIS:

Following are some major causes of energy crisis in Pakistan:

Relate your headings to the qs statement

a) Political Influence:

There are numerous agencies working under two different ministries for energy development, transmission and regulation with their own terms of reference, political and strategies, without any efficient system of coordination. Since June 2017, two regulatory authorities have been put under two different ministries. i.e NEPRA under Water and power Division and OGRA under petroleum and Natural resources Division. These authorities are working in highly centralized manner under considerable political influence on pricing and tariffs.

Relate your headings and arguments to the qs statement

b) Policy issues:

There is absence of energy policy to provide guidance for improved monitoring, evaluation, and decision making by the government for the secure supply of energy. Acanthate lack

of integration in energy policy making and implementation as there are separate bodies for policy making, planning, developing a legal and regulatory framework for each fuel mix.

c) Barriers for hydro power politics:

Over the years, a strong inclination has been observed towards promoting IPP and generation through thermal sources, while ignoring the hydel sector resulting in fall, in the ratio of hydel energy or in the overall energy mix. In the past three decades the policies has been focusing more on short term quick solutions.

d) Heavy Reliance on Imported Fossil Fuel:

Heavy reliance on imported fossil fuels particularly oil and LNG has been the trend in our energy profile. Oil and LNG worth $ 824.872 million, were imported in FY 2020-2021 which is nearly 15% of entire import bill.

Add source against your references. Also highlight them

e) Depletion of Indigenous Gas:

Pakistan's Indigenous gas reserves are expected to decline by approximately 50% in the next 10 years, forcing it to import LNG (Liquified natural gas)

f) Shale Gas Imploration.

According to a report published by US Energy Information Administration (EIA), Pakistan has estimated fresh recoverable shale gas reserves of 105 Trillion cubic

feet (Tcf) and more than a billion barrels of oil in Pakistan. Shale gas had seen Tremendous developments in a couple of other countries.

g) Independent Power Producers (IPPs) Issue:

Introduction of IPPs in energy sector had considerable implication on power sector that raised the prices of power shifted Pakistan energy mix in favor of oil and gas. In addition, the inexpedient agreements with IPPs allowing them to set high tariffs and inessential guarantees also aided to the power crisis in Pakistan.

h) Circular debt:

Government policies, failure to recover T & D losses, overstaffing, delays in payment inefficiency in collection of revenue and inappropriate allocation of subsidies are issues of paramount importance that are responsible for lingered circular debt in country.

Add more arguments in this part

Way Forward:

Pakistan despite its relevance to the energy security of the region and beyond, has not been able to solve this crisis due to different roles and policies of multiple energy bodies and organization in the country. The current situation demands strict implementations of following steps to achieve energy security in pakistan.

1- Improving Energy Governance by Establishment of National Energy Authority:

There is a need to establish a single National Energy Authority (NEA) to oversee all institutions in the energy sector. NEA must have the power to coordinate the efforts of all the sectors, relating to drafting and implementation of a single energy policy.

2- Energy Security Policy

Policy should focus on realism, robustness, resilience and sovereignty with incentives to exploit local resources reduce T&D losses, and increase competitiveness

3- Building a balanced / diversified energy supply mix.

Pakistan's energy mix should increase alternative renewable energy, nuclear energy, solar production through net metering. Grievances of provinces should be addressed and myths related to dispute large reservoirs should be explored.

CONCLUSION:

Pakistan needs a multi-pronged approach to meet the growing demand of its energy, including a strategic energy culture, a national energy narrative, a national social energy outlook, and energy supportive education. It also need to have the right energy mix and reduced dependence on fossil fuels. Moreover, the environmental concerns should be kept at forefront in dealing with the energy crisis and options for greener and sustainable energy should get the priority to ensure a cleaner environment.