

Q.1).

Introduction:-

The socio-economic ~~reforms~~ ^{future} of Pakistan is indeed directly linked with the Power sector reforms. Pakistan has always faced the problem of energy crisis and power shortages. Currently the country is facing a power shortage of 8500 megawatts, where the demand is 28,500 MW. The causes of this crisis can be attributed to the constant neglect, mismanagement and bad governance of consecutive governments. Without the sufficient supply of energy, socio-economic reforms can not be achieved. So, there is an urgent need to take appropriate measures to close the gap between energy demand and supply for a better socio-economic future of Pakistan.

Link between Socio-economic Development and Power Sector Reforms:-

Sufficient and continuous power supply is mandatory in each and every field of life and the socio-economic development of a country largely depends on it. Power sector reforms can lead to development of a number of factors, which in turn

lead to the socio-economic development of a country.

1) Industrial Development:

Large industries are one of the biggest consumers of energy and their development crucially depends on sufficient power supply. Industrial development is a major factor contributing to socio-economic development.

2) Attracts Foreign Direct Investment:

Sufficient power supply in a country can lead to increased investor confidence. It creates an atmosphere of investments in businesses and economic conditions can be elevated consequently.

3) Employment Opportunities:-

Industrial Development and can lead to increased employment opportunities. This improves socio-economic conditions and takes people out of poverty.

4) Social Sector Development:-

Continuous supply of power is necessary for social sector institutes like hospitals, colleges etc. The better performance of these institutes also contributes to the socio-economic development.

5) Agricultural Development:-

Pakistan is an agricultural country and agricultural development is crucial for socio-economic development of Pakistan. Modern agricultural equipment and techniques also require sufficient energy supply which is why power sector reforms is necessary for it.

6) Urban Development:-

Energy is required for big cities to run and for urban development. Better facilities are provided in these urban cities which leads to socio-economic development.

7) Fiscal Management and Circular Debt:-

One of the biggest problems of Pakistan's energy sector is circular debt. It is due to late payment of bills, electricity theft, power loss during transmission etc. Power sector reforms could alleviate this problem and fiscal management would be improved. This gives opportunity for socio-economic development to the government.

8) Sustainable Development & Climate Change:-

Pakistan mostly relies on oil & gas for

power generation which is unsustainable and very pricey. Reforms to convert to hydel and nuclear power are sustainable which could also help mitigate climate change.

Challenges in Power Sector:-

Pakistan faces a lot of challenges in the power sector some of which are as follows:

1) Over Reliance on Oil & Gas:-

Pakistan heavily relies on oil and gas for power generation which is unsustainable and very expensive. According to Economic Survey of Pakistan 2022-2023, 58.8% of energy is produced through oil & gas, which is too high. It makes Pakistan susceptible to external shocks of the oil and gas market. Pakistan has the potential to meet all its energy requirements:

2) Insufficient & outdated Infrastructure:-

The transmission lines are outdated which causes a lot of power loss during transmission. The infrastructure is also insufficient and new power plants are need to be constructed to deal with the power shortages.

3) Circular Debt :-

Circular debt is accumulated by not paying the power distribution ~~company~~ companies.

The reason for this is late and non payment of electricity bills, electricity theft, rupee devaluation etc.

Way Forward :-

1) Shifting to Renewable Energy Sources :-

Renewable energy sources such as hydel, solar power & wind power are not only sustainable but also cheaper in price. A shift to renewable energy sources is very beneficial for the power sector as Pakistan has enough potential to be self-sufficient in energy needs through renewable sources only.

2) Modernizing the Infrastructure :-

The infrastructure of the power sector needs to be revamped. Construction and maintenance of new power plants and transmission lines is required. The power loss during transmission needs to be minimized. The infrastructure development has broader economic and social implications.

3). Awareness about sensible power consumption:-

The general public needs to be made aware of responsible and sensible power consumption. There should not be unnecessary or excessive use of energy in households and industries.

4). Bill Collection Should be Improved:-

In order to deal with circular debt, collection of bills should be increased. Power theft should be minimized.

5) Contracts with Power Distribution Companies should be revised:-

The old contracts with power distribution companies should be renegotiated. The previous contracts were heavily in favor of the distribution companies and have led to circular debt.

Conclusion:-

Power sector is crucial for the socio-economic development of Pakistan. Power sector is intertwined with all other sectors including industries, social sector, agricultural sector and their development is dependent on power sector reforms. Power sector of Pakistan is faced with many challenges and proper measures are to be taken for their mitigation.

Q.2). "Loss & Damages" Concept and Prospects for Pakistan:-

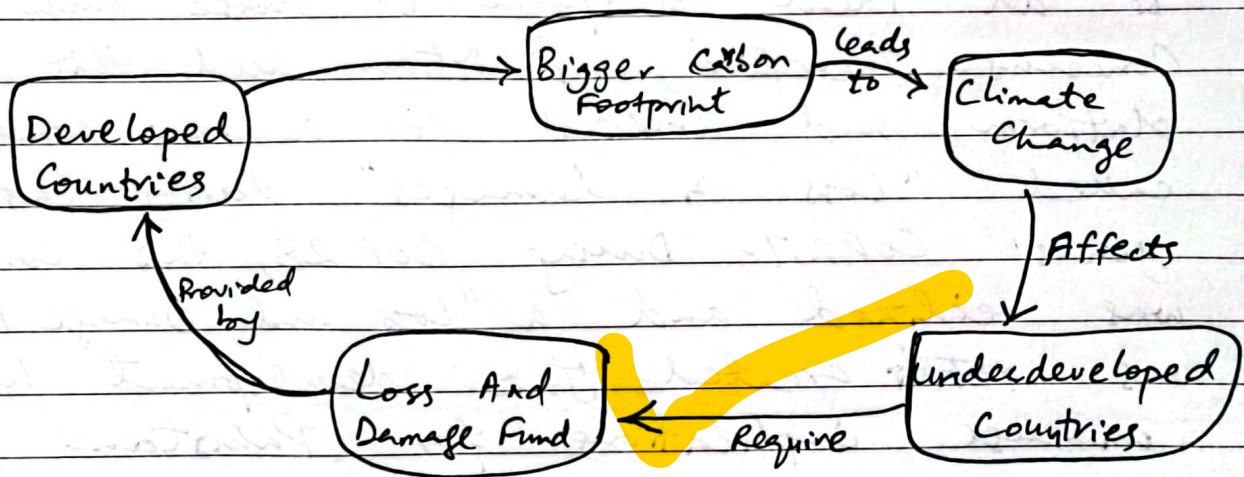
Introduction:-

Pakistan is one of the most vulnerable countries to climate change in the whole world. Therefore, it has time and again raised concerns over it in the international arena. The Conference of Parties to the UNFCCC, more commonly known as COP is an ideal platform to raise such concerns. Therefore, Pakistan used this platform and lobbied for a new concept called "Loss & Damages" during last year's COP27. During COP28, this concept was realized and a "Loss and Damage Fund" was ~~then~~ created. This development holds immense implications for Pakistan.

Loss & Damage Fund:-

The concept of "Loss and Damage" is relatively new and it refers to addressing the impact of climate change that go beyond the capacity of the country that has suffered those impacts. Countries like Pakistan, which is one of the most vulnerable to the effects of climate change and is ranked fifth the

fifth most vulnerable country in the world affected by climate change by Global Climate Risk Index 2022, could make good use of the Loss and Damage concept. Therefore, during the previous conference, COP27, Pakistan lobbied for Loss & Damage Fund. This fund was approved during COP28 and approximately 800 \$ million worth commitments were made for this fund, mostly by the developed countries.



Challenges For Pakistan:-

1) Activating the Fund:-

Pakistan must adhere to strict checks and balances in order to activate and take benefit from this fund. Pakistan must show its commitment to effectively utilize the fund.

2) Balancing Climate Goals & Energy Needs:-

Pakistan faces a major problem of energy crisis and it has over reliance on oil & gas based power plants. Therefore, it is a huge challenge to balance the energy needs with the commitments made at the conference.

3) Challenges in Infrastructure & Execution:-

Pakistan faces numerous problems in infrastructure and execution of climate goals. Recurrent floods have destroyed the infrastructure of the country. Modern technology like charging stations are not available for a switch to electric vehicles.

4) Climate Vulnerability & Economic Impact:-

Pakistan is extremely vulnerable to climate related disasters. These disasters have had a huge economic impact on the country. During 1997 to 2016, Pakistan suffered around \$3.8 billion due to climate change. Such losses have had a huge toll on the national exchequer and there has not been enough funds to invest in other development projects.

Potential Benefits of Loss & Damage Fund For Pakistan:-

Due to the numerous challenges Pakistan faces due to climate change, Loss & Damage Fund could be a huge help for it.

1) Financial Support:

First & foremost, the loss and damage fund could provide financial support for adaptation and recovery. For a developing country like Pakistan, financial support is essential for sustainable development and climate resilience.

2) Access to Technology & Expertise:-

Loss and Damage Fund may result in improved co-operation and transfer of climate-resilient technology and expertise. This could empower Pakistan to become more adaptive and climate-resilient in the face of climate-related disasters.

3) Enhanced Capacity Building:-

Loss & damage funds could also lead to enhance capacity building in Pakistan.

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It involves training, sharing knowledge, and enhancing the nation's ability to cope with climate change.

4) Sustainable Development:

There is also an opportunity for Pakistan to become more tilted towards sustainable development practices.

Conclusion:-

The Loss & Damage Fund is a great initiative that could help the underdeveloped climate vulnerable countries like Pakistan. Pakistan is faced with many challenges due to climate change. This fund could provide necessary financial and technical support to Pakistan.