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Part Paper Evaluation.

Pakistan Affairs - CSS-2019 Q 6.

→ What are the main causes of energy crisis in Pakistan? What measures do you recommend to address it?

Answer:-

A- Introduction:-

It is an axiomatic fact that all nations on the globe are dependent on energy for running their daily affairs from industrial level to domestic level. Energy production in Pakistan is based on hydrocarbons such as oil, gas and coal since its inception. As Pakistan is an agrarian country and most of its economy is dependent on export of cotton and other textile items, it is utmost important to run the wheel of the state on cheapest form of energy that is cost effective and make it easy for the state to balance its payment equilibrium. For that purpose, the shift from hydrocarbons to renewable energy resource is necessary.

Energy Crisis in Pakistan:-

Pakistan has been grappling with energy crisis majorly since 1990s, but the outburst was witnessed in 2007 when the energy demand exceeded by 13 percent.

B- Main Causes of Energy Crisis In Pakistan:-

- 1- Heavy Reliance on Hydrocarbons rather than renewable energy resources such as wind energy, hydel energy and solar energy:

The energy sector of Pakistan is dependent on **5,88,000** barrel of oil per day for producing sufficient energy to meet the requirement. Out of the aforementioned amount **800,000** barrel are locally produce while the remaining **500,000** barrels are imported. This import based oil causes the electricity prices to rise. Therefore, Pakistan has the most expensive energy across **Asia**.

- 2- Lack of refinery industrial units in Pakistan: Elaborating the case of

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USA, KSA, India and China

The three major refineries of Pakistan are Attock refinery, Hub refinery and Karachi refinery. As these refineries use outdated equipments and machinery, out of each 100 barrels of crude oil 36 barrels are refined and rest of the oil remain wasted. This also halts the issues at severe level.

⇒ Oil refinement by other countries

USA : 91%

KSA : 85%

India : 80%

China : 86%

Pakistan : 36%

3. Expensive Projects with Independent Power Producers are the major reason behind Pakistan's upscaling import bill:

Since 1994, when first IPP project was installed in Pakistan which was diesel based, three more IPPs started generating energy in Pakistan in the following years: 2005, 2011, 2014. The government is bound under these project and agreement to pay the IPP's as agreed in their agreement. So the extra amount of energy generated renders no benefit to the state rather it add more into the circular debt by

way of capacity payments.

May - Aug = Approximately 28,000 MW

⇒ **energy use in Pakistan** — Sep - Nov = Approximately 14,000 MW
~~Dec - March = Approximately 13,000 MW~~

⇒ **Fluctuation in Energy Consumption**

IPP's contracts

Even if not a single watt of energy is consumed

Government is duty bound to pay

4- Conditions set by International Monetary fund (IMF) to raise the price of energy and remove subsidies on electricity.

As Pakistan is heavily dependent on IMF for loans, so the country is always compelled to uplift the subsidies and ~~due to~~ this the energy becomes more expensive.

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5. Old transmission lines adds another injury to the problems of energy sector of Pakistan:-

As per the estimates made by power division of Pakistan **out of every 100 MW energy produced 33 MW** of energy is lost in transmission lines because of old infrastructure. Line lost: Pak = **17%**, Afg = **12%**, Chin = **3%**, India and Bang = **9%**.

6 - Power theft and local practices of "Kunda" System (wire-tapping):-

There are multiple methods of electricity theft such as by passing the electricity meter connection, reverse metering, directional changes but wire tapping is the most commonly practiced in Pakistan. According to the report by **Senate in 2013**, Pakistan had lost 90 billion rupees in past five years because of wire-tapping -

Add more arguments!

C- Recommendations to stop Energy Sector of Pakistan from further deterioration:-

To achieve stability and steering the country out from the shackles of energy conundrum following are the measures that are critical to be taken by the government.

1- Renegotiation of energy generation contracts with the Independent Power Producers (IPPs), on timely basis.

⇒ International law: Each state is bound to renegotiate a contract every fifteen years if explicit time period is not mentioned in the agreement.

2- Payment to local IPPs must be made in Pakistani Rupee rather than in US dollar:

This will help in keeping dollar reserves save in government accounts:-

3- Revamping outdated electricity transmission lines:

As it is highly costly project to set in action but phase wise revamping can be proved as helpful.

Case: **Motari** Lahore transmission line

revamped by 1.3 billion dollar expenditure with the help of China.

4- Installing local and cheap projects:

As Pakistan lacks in dam capacity, so construction of Diamer-Basha Dam (4500 MW), Dussu Dam (4300 MW) and Mumand dam (800 MW) can become a potential source to fuel local energy needs.

5- The shift from Hydrocarbon based energy to Solar energy: A ray of hope.

Solar energy is reliable and has no adverse effects on the climate. In fact the domestic users can receive credit for excess electricity generation by net metering policy. Therefore solar energy is vital to rely upon rather than other sources which are expensive as well as contribute to green house gases emission.

6- Create a culture of energy generation and conservation as a responsibility for all citizens:

Small projects and subsidised solar panels installed by government can make a huge difference in ample supply of energy across the country.

Case in Point:- **AKhunnat** foundation providing low interest rate loans for buying solar panels.

Conclusion:-

To cut the long story short, it can be stated that by maintaining the writ of the state and controlling corruption in energy sector along with investment made by the government in revamping old structural issues can draw Pakistan out from the scary-spectre of energy crisis.

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Improve the references and the paper presentation part!