

OVERVIEW

24-25 overall lectures

8-9 lecture **Contemporary portion** – Sir Farid Khan

4 lecture C.A Relations

6-7 lecture Security and Politics of Pakistan

3 lecture Constitutional developments

2 lecture nuclear securities

3-4. lecture organization (BRICS), G20,

Pak Affairs/ CA/ IR / essay/ pol sci/ pub adm/ environmental etc. etc. many topics are overlapping and cover here

Sir Farid's Portion: All the Contemporary topics and main topics

Either relational, international etc. and comparatively old and smaller topics are being devolved to other facilitators.

1. US China

- a. Trade war
- b. Currency war
- c. Taiwan (CHIP WAR – Semiconductor war)
- d. Rivalry in the middle east
- e. QUAD
- f. BRI
- g. BRI vs B3W And India Middle East Europe.

2. Russia VS NATO

- a. Resurgence of Russia
- b. Revival of NATO
- c. War in Ukraine and its implication
- d. Russia-US negotiation on Ukraine

3. Multipolarity

- a. Retreats to U.S
 - i. U.S debt Crises
- b. The rise of China
- c. The resurgence of Russia
- d. China is playing by the same book US did.
- e. Techno- Polar world
- f. Russia china relations
- g. US and its allies relations (US + NATO)

4. Politics of Climate change

- a. North – south divide on de carbonization
- b. COP 21
- c. Findings of COP 26-27-28
- d. Challenges

5. War on terror

- a. Revival of Taliban in Afghanistan
- b. Challenges of Afghan Taliban Government
- c. Why U. S and NATO failed in Afghanistan
- d. The revival of TTP in Pakistan

6. Middle East

- a. Saudi Arabia – Iran Rapprochement
- b. Yemen
- c. Syria
- d. Iraq
- e. Lebanon
- f. Gaza (War Crime in Gaza)
- g. Two state solution
- h. Apartheid state.
- i. Pakistan
- j. US- China Rivalry
- k. Regional competition --KSA vs Iran
- l. **Hamas Israel War – Implications on the region and global power dynamics**

7. Commodities Supercycle

8. Politics of corridors BRI, B3W, IMEC etc.

National Topics:

1. Energy Crises
2. Economy (2 lectures)
 - I. Balance of payment crisis
 - II. Budget deficit
 - III. Trade deficit
 - IV. Loan and IMF
 - V. Devaluation of Pkr
 - VI. Inflation
 - VII. SIFC
3. Internal security (TTP) - insurgency in Baluchistan
4. Political crises and instability

Relations: CPEC (China-Pakistan relation)- the decade of CPEC (achievement and failures)

Preparation:

1. Those who wants to study by themselves:
 - a. National
 - i. Dawn (editorials and articles)
 - ii. IPRI
 - iii. ISSI
 - iv. IICR
 - v. Pildat
 - b. International
 - i. Foreign affair magazine
 - ii. Foreign policy magazine
 - iii. The economist
 - iv. Wall Street Journal
2. Those who wants to study with us:
 - a. Facebook group: Sirfaridkhan (data in a proper sequence)
<https://www.facebook.com/groups/sirfaridkhan/>
 - b. CSS related books:
 - i. CA book and Magazine of NOA
 - c. Lectures

Data Bank:

Data should be in bullet form

separate file for each topic and subjects

start attempting questions according to the data bank.

Energy Crises in Pakistan

How the energy sector of Pakistan Operates:

1. The use of hydrocarbons (HC)- Oil, gas and coal

In 2022-23, almost 588,000-barrel oil per day consumed

83000 produced locally and remaining 500,000 barrels imported.

Gas used per day, 1 billion cubic feet (bcf) per day

36% produced locally while the rest were imported.

Coal 7.53 Tonne mn in Dec 2021 produced.

9000 Mega Watt electricity were produced per day by coal whereas 2500MW generated by local coal while other from imported coal.

Hydrocarbons Importers: PSO, Shell, Attock Group of companies.

Producers: OGDCL, POL, MOL

Problem statement: Pakistan consumes more hydrocarbons (HC), the local production is less therefore it has to import more and more HC.

2. The hydrocarbon suppliers in Pakistan:

- a. **PSO:** all the importers and local producers of oil handover the oil to PSO. If it is refined oil, it is directly disbursed but if it is crude oil then it is sent to the refineries like Attock refinery, Karachi refinery, Hub refinery etc. 36% oil can be refined maximum and the rest is considered as waste material. The refinery capacity of U.S is 91%. Saudi Arabia refinery capacity is 85%. China capacity is more than 86%.

PSO disbursed the oil to the electricity producers, fuel pumps, industries etc.

- b. **Sui Southern and Sui Northern:** Sui- Southern deals Sindh and Baluchistan.

Sui- Northern deals Punjab, KP, AJK and GB. They are gas suppliers to the industries, electricity producers and domestic sectors.

- c. **NTDC:** National Transmission Dispatch Company- the supply of electricity from generator to the local Grid to the consumer is take taken by NTDC.

On grass root level or district level, it has local disbursing (supplying) bodies.

DISCOs - IESCO, LESCO, PESCO, FESCO, HESCO, K-ELECTRIC etc.

The supplier of electricity from the local grid to the end consumer

3. The decision-making bodies:

- a. **NEPRA:** all the major decisions of electricity are taken by **NEPRA**.
- b. **OGRA:** all the major decisions of oil and gas are taken by **OGRA**.

4. Major Electricity Producers:

- a. **WAPDA:** almost 28-30 % electricity being produced by WAPDA
- b. **IPPs:** (Independent power producers)- Oil, Coal and gas based. Wind and Solar based.

- c. *Civil Nuclear Projects: collectively 3300 MW produced by K2 and K3 (1100 MW each). C-1,2,3,4 – 340 MW each (Chasma Projects), each generated 340 MW electricity.*
5. *The role of bank in the energy sector: It provides loans to oil and gas importers, producers, transporters, electricity generators, to the state of Pakistan regarding energy projects.*

Introduction

- a. General start
- b. Particular topic
- c. Summary (Conclusion)

Pakistan has been facing multiple and serious challenges like political instability, constitutional crises, security threats, unprecedented economic crises, etc. (General start). one of the severe crises faced by the country is the energy crises where the state faces not only the inadequate amount of loadshedding but also mounting prices of electricity bills. (Particular/ Specific statement) This energy crises have far reached negative implications on industries, agriculture, markets, domestic life, and public sector. There is a need of addressing these crises at the earliest in order to overcome its negative implications on the national life of Pakistan. (summary)

Problems with the energy sector: Problems in Energy sectors are majorly two, first loadshedding and secondly expensive electricity generation.

1. Loadshedding In Pakistan:

The energy sector of Pakistan is facing severe loadshedding.

In the Summer 2023, the shortfall was well above the 7000 MW

Loadshedding in the urban centers varies from 4-5 hrs a day while in rural areas 10-12 hrs a day

In Summer 2022, the short fall was more than 10,000 MW while loadshedding in the urban center was around 8hrs a day. In rural areas around 16-18 hrs a day.

From 2007 till end of 2016, the shortfall varied from 5000 to 8000 MW

The loadshedding in the urban centers from 2006 to 2016 was around 8hrs a day. In rural areas, more than 18hrs a day. In 2022-23, dangerous revival of energy.

Reasons for load shedding:

1. Where there is less recovery, load shedding is higher in such areas.
2. State is unable to pay the pending bills of IPPs so these private sector producers reduce the electricity generation that cause load shedding
3. State has dollar shortage persistently therefore, it cannot import required amount of oil gas and coal for electricity generation. Eg; in 2022

total dollar reserves fallen down to less than 8 Billion Dollars and the state faced with the corrupt to default. Therefore, government decided to protect dollar by cutting down the import of oil, gas and coal. So, the IPPs did not get the required oil gas and coal to generate electricity.

2. Expensive electricity generation is the major problem of Pakistan:

As the country generates the most expensive electricity in Asia and 3rd most expensive electricity generated in the World. (EX-PM of Pakistan)

Pakistan generate the most expensive electricity in the world (Current PM,2024) domestic unit charges vary from 24 to 65 PKRs. The price of per unit decided on the basis of SLABS being introduced by NEPRA. Below 100 units (1-100units) the cost is almost 28Pkr including all the taxes and other charges. From 100–300-unit slab price is 44 Pkr per unit including all the taxes and other charged. From 300-600 unit slab the cost is about 56 pkr per unit. Above 600 units the minimum price per unit is 72 pkr.

In commercial (markets, industry, agriculture), it varies from 48 to 90+ PKRs per unit cost. Slabs are also vary the prices per unit. The prices got almost more than 3 times in the last two years. The cost of domestic unit of slab 300-600 unit, 18pkr in 2022, now the price rises more than 56 Pkr.

Reasons of expensive electricity in Pakistan:

1. Pakistan generates more than 60% electricity through Hydrocarbons (HC).

12000 MW electricity units are installed capacity of diesels, more than 7000 MW of LNG, around 9000 MW of coal. Diesels is most expensive; LNG is the second most and 3rd the Coal. Almost all the HC being consumed for production of electricity are imported. All the diesels, LNG, petrol and majority of Coal is being imported. The prices of HC jumped up in international market after the war in Ukraine and Sanctions on Russia. All the HC has been purchased in Dollars while Rupee has been devalued against dollars. In 2021, if 1-billion-dollar oil is import had a cost of 178 billion Pkr, today it has more than 275 billion Pkr.

2. Expensive agreements with IPP (Independent power producers)

Independent power producers or the private sector producers produces electricity from HC. These IPP were installed in 1994, 2005, 2011 and 2015. (1994, 2005, 2011 were installed because the generation capacity was less and the demand was more while in 2015 IPPs were installed in order to minimize dependency on oil and shift to LNG and coal.)

Resultantly Installed Capacity increased tremendously while the demand is less. As per economic survey of Pakistan June 2024, the install capacity is 42,000 MW. Out of which 12,000+ MW is of diesel units. 7000+ LNG, ~9000 coal (28000 MW installed capacity of hydrocarbons – oil gas and coal). 5000-7000 MW is hydel. 1500 MW Solar, 3300+ MW civil nuclear, 1000MW wind.

The problem is the demand of electricity is less, the maximum demand is 26000 MW in Summer 2024. It is 16000 MW less than the installed capacity. In Winter 2024, the maximum demand around 13000MW, which is 29000 MW less than installed capacity.

The more the increase in demand, the more the IPPs got installed. First and the major reasons for expensive electricity is the capacity payments made to IPPs. In Summers, the demand is on the peak as in July 2023 it was around 28,000 MW while in winters it reduces by more than 50% as in January 2023 it was less than 14000 MW. The agreement with IPP is being signed on the basis of maximum demand. In Summers the state has to purchase the maximum demand while in winter it reduces (normally it reduces to 40%). The state has to purchase this much electricity the minimum. But if the state does not purchase, the required volume of electricity yet again it has to pay the price. whether state purchases or not purchases electricity at all from an IPP yet again the govt has pay off atleast 33% of the total payment 33 to 40 %. In the year FY-2023-24 Paistan paid 1.3 Trillion Pkr to IPPs under capacity payment yet again the remaining amount under capacity payment is 2.6 Trillion Pkr.

All the IPPs Payment are being paid in Dollars. As far the external IPPs has send they. Must have to pay in dollars, but locally owned IPPs has being paid in Pkr. Unfortunately, we have paid the local IPPs in dollars that results into decline in the dollar reserves.

Problem statement ----the installed capacity is more and the requirement is less that results into higher cost of electricity and more and more capacity payment.

3. The conditionalities of IMF results in making electricity more expensive:

In oct 2022, the Agreement with IMF renegotiate. In March 2023, it renegotiated again. IMF conditioned the provision of loan to Pakistan with the increase in per unit price of electricity. To do that subsidies should be waved off. Secondly The fuel prices would be increased in Pakistan more than 60% of electricity is produced by fuel. Thirdly, make rupee devalue. The devaluation of Pkr resulted in further in the prices of electricity. Hydrocarbon is purchased in dollars, Secondly IPP are also paid in dollars whereas the rupee devalued against dollars. Resultantly the unprecedently price hike of electricity in Pakistan.

4. Problems with the electricity distribution and transmission system results in loadshedding and expensive electricity.

The total loss in the transmission and distribution system is aprox. 33%. Out of which, in transmission it is 17%. As the transmission line of Pakistan is seriously outdated. Majority of them has got expired either before 2000 or 2010. Resultantly the line lost in Pakistan is highest in Asia which is 17%. This line lost in China is 3%. Approx. 9% in India and Bangladesh. Around 12% in Afghanistan. This means out of 100 MW being produced and 17 MW being lost in lines. The cost of it to be afforded by the state and consumer.

Secondly, there are numerous problem in distribution system, that result in 16% loss in eelectricity sector. One of the major reasons for the increase in electricity prices is electricity theft. In South Asia, Pakistan is on the top of the list. The common pahern of electricity theft is the Konda system, temper the meter reading etc. This

electricity theft in urban centers, Karachi is the top most city, while there is no single city where electricity theft is not reported. In urban centers it is mostly done by industrialist and builders while in rural areas it is by agriculturist who use to thief. This electricity theft in common areas where the writ of the state. Moreover, there are a series of areas in Pakistan specially the ex- tribal areas, there is no concept of electricity bills. Pending of bills on the Government departments, free and subsidies electricity in certain departments in Pakistan which results in 16% loss.

Implications:

1. Industry is one of the major and worst hit.

The price of the product is decided on the basis of the purchase of raw material, transportation cost, labor rates and the price of electricity. On one hand the state has not be able to ensure the non-stop supply of electricity. On the other hand, the generation cost of electricity has been increased three times that has resulted in higher production cost of industrial products. Therefore, the products of Pakistan not been able to compete in international market those which are produced in Bangladesh and India, resultantly decline in exports especially in textile, leather, sports products etc. Industry is the worst hit. More than 200 industries closed in Pakistan since last 3 years.

Multiple factors are responsible, unprecedented rise in electricity is the major reason.

2. Setback for the agriculture:

More than 30% of Agriculture of Pakistan is based on tube wells and digwells. Majority of those tube wells are powered by electricity. The more the loadshedding the more the set back of agriculture. The cost of agricultural product rises with the increase in the price of electricity.

3. Increasing Balance of payment crises:

As the product of Pakistan got expansive resultantly, they are least competitive in International Market, therefore there is decrease in exports while increase in imports. Resultantly increasing pressure on dollar reserves. To improves the dollar reserves the Government has to acquire loans from IMF and ither sources.

4. Implications on domestic life:

More than the 40% of the earning of lower middle class is being consumed by the electricity bills because there has been unprecedent increase in per unit price of electricity. This has negatively impacted disturbed the routine domestic budget of every house hold. Repeated load shedding effected the domestic life.

5. Commercial market:

Commercial markets effects badly due to increase price of electricity. As Per unit cost of electricity has been increased almost 3 times in last few years. Shopkeepers have to add the price of electricity to the price of the product they sale. Burden is shifted to the consumer. Load shedding have forced

them to make the use of generators in the peak or shopping hours which are taken from the buyers.

6. Public life:

Because of loadshedding, deindustrialization is under process. Results in increase in unemployment. The price of commercial unit has increased. Therefore, the shopkeeper is bound to add the cost of electricity to the final cost of the product. On one hand purchasing capacity of people decline on the other the earning of the businessman is tremendously curtailed. Therefore, electricity tariffs have become the major socio-economic problem of the country that has been far reaching negative implication on the national life of the country.

Solutions:

1. Renegotiate the agreements of IPPs.

The agreement signed in 1994 and 2005 should have been negotiated long time ago but unfortunately decades long delay was made by the successive governments. Until 2020, when these agreements were renegotiated no more capacity payments, local IPPs would pay off in Pkr. It was a positive development but it has solved the problem maximum by 40%. As majority of IPPs being installed in 2011 will renegotiate in 2041 and 2015 will be renegotiated in 2045.

2. Install local and cheaper electricity projects.

Energy policy 2030, focuses on indigenization of electricity generation. 15000 MW of electricity would be produced from hydel projects, in which diambasha dam would add 4500 MW by 2029, Dasu would add 4300 MW by 2027, Mumand dam 800 MW by 2025, Karot has already started generation of 730 MW, Sukhi kinari would 883 MW etc. Secondly increasing focus on electricity from local coal of Thar, as one project of 1320 MW, and 4 projects of 320 MW each are already completed. Thirdly, 4500 MW would be produced by wind turbines and 10,000 MW from solar projects, 10000 MW from civil nuclear reactor. The objective of Pakistan is to achieve zero percent of dependency on important hydrocarbons for electricity generation by 2030.

3. Revamp / updated the transmission lines

Though it is an expensive phenomenon but the country is in dire need of changing the outdated transmission lines. The local transmission and the broader network NTDC (National transmission dispatch) needs to be changed. The line loss and the electricity theft would be greatly reduced.

4. The writ of the state must be improved in order to stop electricity theft. And to get the bill in time. Furthermore, the state must ensure that no department will get free electricity.

5. Privatization of the DISCOs, K-electric supply corporation performing far better than the state own distribution company. It has reduced a loss from 33 to 17. State should play the role of regulator.

Conclusion:

Above steps mentioned steps will be taken, not only loadshedding would be over with that would help to decrease the overall price per unit.