

Imbalance of energy mix in Pakistan and its consequences.

1 - Introduction

Thesis statement: Pakistan energy sector has become a white elephant due to bad policies undertaken by policy-makers. This has led to unprecedented debt, inflation and negative growth.

2 - Historical overview of Pakistan energy sector.

3 - Underlying causes of energy mix imbalance in Pakistan

3a - Lack of ^{Energy} Policy vision at the leadership level

3b - Over centralization of energy sector

3c - Heavy reliance on imported fuel - LNG, Furnace fuel etc

3d - Undertook flawed and unsustainable agreements -
A case of capacity
Payment issues.

3e - Failure to recognize the potential of renewable energy.

4 - Imbalance of energy mix has led to unending consequences for Pakistan

4a - Accumulation of massive circular debt - 2.6 trillion

4b - Extensive strain on

Federal exchequer.

4c - Unending load shedding cycle in summer.

4d - Damaging the productivity of industrial and textile sector.

4e - Leading to health emergency. A case of vehicular smog.

4f - Producing most expensive electricity.

4g - Lead to unprecedented rise in inflation.

5 - Ways to make Energy sector sustainable in Pakistan

5a - Heavily invest in renewable energy

5b - Deregulate the energy sector.

5c - Explore indigenous resources for energy production

5d - Ensure policy consistency by implementing in true letter and spirit

6 - Conclusion

The year 1970 is historic, as it led to the Dollarization of global economy. The 1970 Dollar-oil agreement cemented the hope

globally that oil will be purchased and sell at a lower rate. However, that hope was soon tarnished when the first OPEC crisis happened in 1976 and oil prices skyrocketed to unprecedented level. The ripple effect of that crisis was heavily felt in Pakistan at that time, and the policymakers formulated an extensive energy policy document which ignored much of the global best practices. Hence, Pakistan energy sector has now become a white elephant ^{due to} the bad policies undertaken by Policymakers. This has led to unprecedented rise in debt and inflation. There are innumerable number of reasons of why Pakistan energy sector is in a such mess. To cite, number one will be absence of Policy vision at leadership level. Similarly, overcentralization, signing unsustainable agreement and not recognizing the potential of renewable energy is the foremost ^{consequently,} cause of Pakistan energy woes. This ^{this} has led to accumulation of massive circular debt, low productivity, low growth and unprecedented inflation hike. Contrary to all being said, the solution to Energy problem lies in implementing

strategic reform in the energy sector which can turn this Achilles heel into an engine of growth and prosperity.

At the time of independence, Pakistan inherited the colonial energy setup of barrages, canal system and coal-based plants. Similarly, The 'Ayub era' was marked by a period of rapid growth due to heavy investment in building Dams and undertaking reforms in agriculture sector. However, this all changed when Pakistan introduced 1992 Independent Power Producer Policy to meet its energy demand. By this policy, IPPs were given free-way to import fuel and generate electricity. This policy in turn led to accumulation of massive circular debt which till now has risen to 2.6 trillion rupees. Likewise, the 2008 policy, 2011 policy lacked any substance implementation guideline. Moreover, the politicization of this sector has genuinely rendered this sector inefficient and unsustainable, which is denting economy as a whole.

The foremost cause of energy sector woes is the absence

of energy policy vision at the leadership level. As no military or political party has taken this sector seriously, hence this sector was ignored the whole time. Furthermore, the first ever comprehensive energy ^{document} policy was formulated in 1992, which afterward proved to be disastrous; as it led to ^{the} start of circular debt in the year 2005. Similarly, political parties in Pakistan have never put energy reform a priority in their manifesto. Thus, it can be said that absence of policy vision at leadership level is the core cause of energy imbalance in Pakistan.

The overcentralization of energy sector has rendered energy reform a pipe dream. As overreliance on bureaucratic procedures ^{and} processes has made this sector inefficient and inept for day to day working. As per a research by PIDE the government's ^{massive} foot hold in the energy sector is underlying reason of misgovernance in the energy sector. Furthermore, the implementation of 18 Amendment whereby this sector working shall be devolve to provinces still remain distant

So, it can be inferred that over-centralization of energy sector is the main problem of misgovernance in energy sector of Pakistan.

Similarly, heavy reliance on imported fuel from Gulf nations has led to energy imbalance in Pakistan. Likewise, Pakistan dependence on imported fuel is ever increasing due to burgeoning population and high demand. Consequently, the energy bill is consuming billions of dollars and is straining federal budget. As per ministry of Economic Affairs LNG and furnace oil is the most expensive fuel for the production of electricity. Therefore, it can be deduced that reliance on imported fuel is the core cause of energy woes in Pakistan.

Another reason of energy imbalance in Pakistan is the unsustainable agreement which Pakistan made with the IPPs in 1992. IPPs have dented the energy sector in profane way like the Capacity payment charges clause of the agreement ensures that government must pay IPPs whether they produce uninterrupted electricity

or not. This clause has led to massive government payments to IPPs producer and till today energy demand has not been met. As per, ministry of finance data, state has ^{paid} made IPP producers \$Po Billion ruppee. on capacity payment charges Hence, such flawed, myopic agreements have done no good to Pakistan energy sector.

The governments inability to recognize the potential of renewable energy sector has led it to make disastrous policy decision. Like, the 1992 policy, 2006, 2011 all spoke of over-reliance on imported fuel. Moreover, CPEC which is a game changer for Pakistan has most of ~~coal-based~~ ^{coal-based} energy projects and ~~the coal~~ ^{to add insult to injury} is being imported. This further adds to mis-governance and misplaced priorities as Pakistan itself has rich sources of coal in Sindh and Balochistan. Similarly, Pakistan has huge potential of generating solar, wind, hydro energy. But, state's failure to recognize renewable energy potential is true cause of energy problems in Pakistan.

The energy sector crisis in Pakistan has led to unprecedented financial constrain. As it is taking up the massive financial pool of resources, in the form of circular debt. As per latest ministry of finance data, the circular debt has risen to 2.6 trillion ruppees which is equivalent to 107% of GDP. Moreover, inability to undertake energy sector strategic reform will further exacerbate the debt level, which will put immense problem for Pakistan.

Similarly, energy sector is taking up the massive chunk of Federal exchequer. As the demand of energy is every increasing and has reached upto 50,000 Megawatt as per NTDC report while the shortfall is approximately 6000 Megawatt. To cover this shortfall, the government has to import more fuel as no domestic resources are available at the moment to cover the gap. This will indirectly lead to more debt accumulation which will ^{further} take away the ^{resources from} shrank budget.

The Fiscal Year 2022-23 was devastating for Pakistan due to floods, political instability and a ^{fragile} global environment. Moreover, All sectors of Pakistan economy witnessed Negative growth in particular the industrial and textile sector. Likewise, the GDP growth plunged to all time low of 0.29%. This happened because of Pakistan immense dependence on importing fuel for generating indigenous electricity. ^{Hence,} Failure to meet the energy demand led to economic crisis which hampered the economic growth of Pakistan.

Another, consequence of energy mix imbalance has been the health catastrophe which is unfolding in Pakistan today. As The heavy reliance on imported fuel has led intangible rise in pollution. This is a negative externality of fuel driven economic growth, as it leads to health problem. As per, Air Quality Index report of university of Chicago people living in Lahore, Faisalabad and Karachi have 5 year less of life. Thus, it can be said that

myopic energy benefits has led to catastrophic health problems in Pakistan.

The Policy makers of Pakistan refusal to invest in Green economy and renewable energy has led to more dependence on ^{non-}renewable sector. Like wise, as per ministry of Finance LNG is the most expensive fuel as it cost 52.5 ruppess per unit and Furnace oil cost 48 ruppess per unit. Both of these fuel are imported in dollar payments and later sell in ruppess to the general public. The wide gap is fill by the government in the form of debt. Hence, this makes imported fuel made electricity unviable for Pakistan economic growth.

Lastly, the energy crisis has led to massive hike in Inflation. Because when the prices of energy increases it increases all products prices. The Russia-Ukraine war of 2022 led to global hike in energy prices. The effects of that war were max. nuanced in Pakistan as Sensitive Price Index rose to

48% in 2023 and consumer price index rose to 28% by the end of July. (SBP). Thus, it can be said that heavy reliance on imported fuel led to massive hike in inflation, which in turn lead to unemployment and low growth in other sectors of Pakistan.

The solution to the energy problem of Pakistan lies in the implementing pragmatic policy decision. Like, investing heavily in the renewable sector can give Pakistan the moral ground for gaining global investment. Similarly, Pakistan in the past has undertaken various renewable energy projects like Quaid-e-Azam solar power plant in Bahawalpur is a case in point generating 2500kW of energy such projects and more will make Pakistan a global ^{south} leader. Who is investing heavily in green economy. Thus, investment in renewable energy sector is the need of hour to end energy crisis.

Similarly, deregulating

(12)

the energy sector is a solution to end energy woes. As stated earlier, that Pakistani government has centralized the energy sector completely hence has made this sector inefficient and inept. This centralization has hampered day to day activities as file culture only gain traction, which leads to loss of investor confidence. Thus deregulating this sector and running it on Board of governors model can make it more efficient and sustainable.

Another solution to the economic woes of Pakistan is look inward and explore indigenous resources. Pakistan is blessed with Natural gas, minerals, coal etc. Thus, building capacity of institutions and inviting foreign global companies like Armaso can help Pakistan explore the indigenous resources. Similarly, Pakistan should re-channelize and revitalize its relation with western neighbour that is Iran. As Iran can provide Pakistan cheap gas supply and oil. The decade long Iran-Pak

gas pipeline can easily the Pakistan energy crisis. Therefore, looking inward and toward neighbours can ameliorate Pakistan energy crisis.

Lastly, the only important solution and recommendation will be to ensure Policy consistency. The only problem with Pakistan has always been its failure to implement the strategic energy reforms in true letter and spirit. For this, all the political, military and other players must join hand and agree to a framework. Furthermore, the Policy must be evaluated and its failure and successes must be made public and transparent.

So, the discourse has been made in detail that the energy crisis in Pakistan is in shamble. Various policies has been made but their implementation and efficacy has always been a question of concern. Likewise, causes of energy imbalance has been explored in detail but the pivotal causes were

Lack of policy vision at leadership level, overcentralization and failure to tap the renewable sector. ^{SO} However, it can be said that causes and consequences has dented the economy but pragmatic, rationale sustainable solution can ~~make~~ get Pakistan get out of the woes it find itself in today.