

CPEC: Pakistan-China Cordial Ties - A Boost to Pakistan's Economy

Hasan Raza¹

Zaeema Asrar Mohiuddin²

Syed Shahid Zaheer Zaidi³

Ahmed Osama⁴

^{1,2}Assistant Professor, Department of Commerce, University of Karachi

³Assistant Professor, Department of Public Administration, University of Karachi

⁴MPhil Research Scholar, Department of Commerce, University of Karachi

Abstract

This paper highlights the need of energy production in Pakistan and to determine the extent to which China Pakistan Economic Corridor (CPEC) and its energy projects will contribute to the economic growth and development of Pakistan. In this regard, a fair amount of literature has been reviewed. The literature review presented confirms that a positive relationship exists between the energy production, security and economic development. The long term friendship of Pakistan and China is discussed and how this tie has benefitted both the countries. Chinese cooperation and assistance with Pakistan is well evident from the substantial Chinese investment in Pakistan's infrastructural expansion particularly development of Pakistan's deep-water port at Gwadar. Under its One Belt One Road plan, China and Pakistan have collaboratively started a multibillion mega project, China Pakistan Economic Corridor. Under CPEC twenty-one energy projects being established, that is supposed to reduce the energy poverty generation in Pakistan. The study finds out that the sufficiency in energy sector will boost economy by energizing the industry and businesses as well as by creating thousands of direct and indirect employment opportunities.

Keywords:

CPEC
Employment
Energy
security
Economy.

JEL Classification:

F-52, J-23, N-75, Q-42, Q-47.

Licensed:

This work is licensed under a
Creative Commons Attribution
4.0 License.

Publisher:

Scientific Publishing Institute

1. Introduction

1.1. The Strategic Ties of Pakistan and China

The friendship of Pakistan and China is traced back to 1950 while Pakistan became the third non-communist country and first Muslim and to recognize the China after its establishment. During the long 65 years of cordial friendship between Pakistan and China, both countries have experienced and coped with varied scenarios and maintained their ties successfully. The history of their bond is written with the cooperation in every possible field i.e. defence, nuclear technology, society & culture, and economy. The economic cooperation between the two countries has been improving consistently over the decades; despite of global trade slowdown, the trade between the two countries has been increasing, and has proved to be a very reverberant strategic partnership.

The Chinese President Xi Jinping in 2012 proclaimed the 'Chinese dream', with slogan of 'One Belt, One Road' (OBOR) initiative, unveiled in the following year. It constituted the overarching China to the Africa, Europe and Persian Gulf by ways of new land and sea routes. The Giant, in broader context, therefore has been conceived both as an integral part of OBOR and as the centrepiece of China's efforts to reinvigorate and deepen its strategic partnership with Pakistan. In sequence to the announcement, China started to implement this plan; the first initiative taken was table talk to one of the sincere friend and neighbour country Pakistan. And after the negotiation with Pakistan, the plan was announced, named "CPEC" China, Pakistan Economic Corridor.

The CPEC, like OBOR, was launched with great fanfare and hailed by Chinese officials as a pathway to progress and prosperity, a 'game changer', a boon to the region and a benefit to the entire world. The rhetoric surrounding the launch of the CPEC thus conveys the image of a self-confident, assertive China determined and increasingly capable of reshaping the economic and geopolitical architecture of Eurasia to its advantage,

and of a friendship between China and Pakistan that is unbreakable and a shared future that is unbounded. Yet, the tendency to regard China's rise as inevitable, which appears to have become the orthodox view in some foreign policy circles, masks the country's weaknesses and vulnerabilities and underplays the degree to which they guide and constrain its external behaviour. More specifically, it tends to create a distorted picture of the origins, purposes, and prospects of the CPEC - not to mention of the Sino Pakistan relationship itself. China-Pakistan Economic Partnership (CPEC) (estimated cost \$45 billion) is infrastructure project, comprising of network of highways, railways, and pipelines to link Western China to the Arabian Ocean through the Gwadar Port which has more than compensated for sluggishness in private investment.

Pakistan and China have already been cooperating each other's economy; and a number of mega infrastructure projects have already been initiated, that include Karakoram Highway, Thar Coal Power Project, Gwadar Port, the coastal highway linking Karachi to Gwadar, Chashma Nuclear Power Plant, and a number of hydro-power projects. The free trade port of Gwadar is strategically important for both Pakistan and China, as it is located at the mouth of the Persian Gulf. Under the early harvest program, China focused on the fast track construction of roads, railway tracks, and development of other infrastructure. Energy production and consumption is a major determinant of economic activity in a country. Pakistan has been facing an acute energy shortage, which has been an important factor for the deteriorating Pakistan's economy. In order to revive and empower the economy, power generation is inevitable. A number of power projects have been established with international support, but the support CPEC is going to extend is unprecedented.

1.2. CPEC: An Unmatched Bounty for Pakistan

The importance of CPEC lies in the prime geo-strategic location of deep sea Gwadar Port lying at the edge of Persian Gulf and Strait of Hormuz which is world energy jugular. This project will bring huge investment to Pakistan that will boost its infrastructure and will uplift its economy and trade. The project has the potential to economically integrate Baluchistan province and curb terrorism and provide better maritime security of Pakistani waters. Once the project is developed, Pakistan can act as a gateway of trade to all landlocked Central Asian Republics, Afghanistan and even Russia. Russia is the main victim of cold water. Russia is still searching for a gateway to reach the hot water through Pakistan. It will significantly increase the geographical importance of Pakistan.

CPEC will have many Special Economic Zones on its way from Gwadar to Kashghar. This mega development project will transform Pakistan into a trade corridor and gateway for South Asian trade with rest of the world. Economy of Pakistan will boost with huge infrastructure development and energy projects along the route of CPEC. Pakistan needed a more trustworthy strategic partner in the region in the wake of growing Indo-US ties. Indo-US ties in the last decade had put Pakistan out of the equation in the region. Through CPEC, Pakistan has been able to balance the power in the region. Also, warming up of relations between Pakistan and Russia on the side lines of CPEC project gives rise to future possibilities of China-Pakistan-Russia axis to counter Indo-US entente in the region. During the last 30-35 years Pakistan has become a cranky, rent-seeking military power, stormed by in land armed insurgencies and a failing system of service delivery. CPEC projects will help overcome this situation by creating job opportunities and spark economic activities which the CPEC aims at particularly. Pakistan is making efforts to narrow its ever growing gap in nuclear -military-economic fields with India. China's economic and military assistance will help Pakistan to a great extent and it is certain that Pakistan's goal of parity with India will become easily attainable. It is generally believed that restoration of economy in the coming period is bound to make Pakistan an attractive destination for overseas investor and socio-economic inequalities of smaller provinces will be effectively addressed. Another aspect is that it will greatly help in removing and squeezing the space for anti-Pakistan elements. It would certainly help the country to deal with some of its major developmental issues, like overcoming its energy shortage significantly and upgrading some of its broken down infrastructure.

2. Literature Review

An effectual amount of literature is available about the subject matter that defines the strategic economic ties of Pakistan and China. According to (Rehman, 2008) Natural gas is the main source of the energy and whole energy sector is depended on natural gas. Natural gas is a precious resource but totally against the economic principles of scarcity and optimal allocation, it has been under-priced which resulted in its misuse and misallocation. No doubt that it created a blockade for the entry of alternate fuels for energy sector such as coal. The net result is that in spite of rich deposits, coal mining activities in the country were adversely affected. He further pointed out the two major issues of primary energy/fuel, and secondary energy, and asserted that we should strengthen our options of primary fuels supply, so that the precious natural gas can be saved and used optimally. In order to have a broad range of primary fuel supply, he emphasized on the need of strengthening Thar Coal and other fossil fuels options. Power and energy is a significant determinant and indicator of Pakistan's economy. Pakistan has been facing serious energy crisis and this has been a major cause in the economic growth and development of this country. Economy and Power generation go hand in hand and both are strongly linked to each other. (Rashid & Haq, 2016)Reinvestigated and developed a model, identifying electricity generation as a determinant of unemployment in Pakistan. Mostly, it has been

considered that both power resources and economic uplift are compliment for each other. (Morimoto & Hope, 2004) showed the bi-directional association of electricity supply and economic growth but also concluded the dependence of relationship upon other variables, including factors of production. In the presence of capital and labour, the adequate supply of power resources contributes a vital part in elevating the level of economic development of the nation (Yoo, 2006).Pakistan economy is suffering from one of its severe power crises that occurred in the past decade. The aftermath of such crisis in the form of power outage in presence of adequate factor of production restricts the participation of industrial sector in growth process. The economy loses more than Rs.10 billion per year because of such shortage of power. As a result the industrial sector shows a negative growth, which demonstrates the retrenchments of jobs at a higher phase than job opportunities provision to the economy. The empirical findings of survey about aftermaths of electricity crisis upon Pakistan economy shows that the crisis caused an estimated loss of billions of rupees per day to Pakistan economy, besides depriving 4.1Unidirectional causality does exist between energy consumption and economic growth. (Riaz & Stern, 1984) Carried out research using the United States data of 1948 to 1994 and concluded that energy consumption has a significant influence on GDP. (Oh & Lee, 2004) Carried out Grander Causality Test between four supply variables (energy consumption, GDP, capital and labour) and three demand variables (energy consumption, GDP and price) based on the Korea's seasonal date from 1981 to 2004,the results showed that long-term unidirectional causality between energy consumption and GDP. However, some scholars concluded that no causality has been found between energy consumption and economic growth. (Yu & Jin, 1992)Carried out research using seasonal data of the US from 1974 to 1990 and concluded no causality.

(Akarca & Long, 1979), (Yu & Hwang, 1984) also drew the same conclusions. With the same research methods, others have found the existence of causality is quite different among countries. (Lee & Chang, 2007) used panel data of 22 developed countries and 18 developing countries analysing the relationship of energy consumption and GDP. The found that unidirectional causality from GDP to energy consumption exists in developing countries and mutual causality exists in developed countries.(Huang, Hwang , & Yang, 2008) divided 82 countries into four groups of low income, mediated-low income, mediated-high income and high income according to panel data from 1972 to 2002. The results showed no causality in low income nations GDP promoting energy consumption in mediated-low income, mediated-high income nations and GDP reducing energy consumption in high income nations.

2.1. China-Pakistan Economic Corridor

2.1.1. One-Belt One-Road: A New Turn of Decades Old Friendship

China-Pakistan Economic Corridor, a multi-billion dollar huge experimental venture of One Belt One Road (OBOR) between Pakistan and China, is primarily projected to benefit the two allies but Iran, Afghanistan, India, Central Asian Republic, and the rest of the region will also be beneficiaries. The connecting countries will have improved and frequent contact among people, and exchange of growth, due to improvised transportation system of roads, railways and waterways. The countries getting closer and closer, will have enhanced activity of considerable volume of flow of trade and commerce, and promote better understanding through academic, cultural and regional knowledge and culture.

Being a win-win model for all, it is deliberate to produce more energy and to have more optimal businesses that will result in an integrated and well joined region with shared destiny, harmony, peace and development. With all this in view it is certain China Pakistan Economic Corridor is a promising network that will take the region to a bright future and towards economic regionalization in the globalized world. The basic principles of the CPEC set as guidelines are: planning and systematical research, phased tactic, harmony, common win-win, and market operation. At this stage, an exact figure of equity and investment is not available to mention in point. Dozens of projects have sought financial help and more are planning to apply and this practice will not be limited. Many Companies from all over the Asia will contribute their part in a transparent manner through an independent and fair bidding. As an encouragement they will be allowed to obtain loans from Chinese Exim Bank on easy terms and conditions. It is asserted that opportunities are so vast that they cannot imagine.

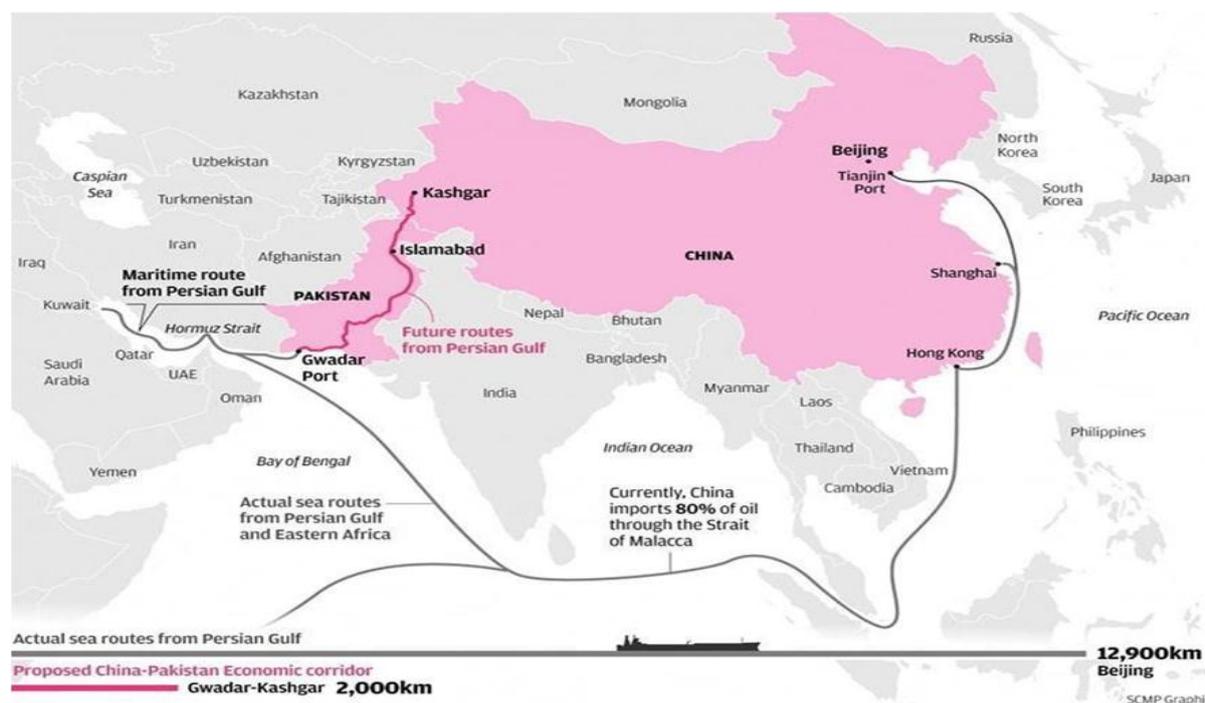


Figure-1. CPEC MAP

(DAWN NEWS, 2015)

One important object of CPEC is to use the land route that connects Gwadar and Kashgar for facilitating trade by establishing a communication structure of roads, rail, and pipelines. Rapid expansion and up gradation of Pakistan's infrastructure are also aimed by China. CPEC as part of China's 13th five-year development plan reflected importance of CPEC to China.

2.2. CPEC Energizing the Economy

Currently Pakistan's current energy gap is about 4,500MW and load shedding is about 5 hour a day, though present energy production capacity is 24,830 MW. This shortfall has decreased annual GDP about 2-2.5%. To overcome the crisis, approximately a huge amount of \$33 billion has been invested in this segment. As part of scheme of the CPEC, 10,400 MW electricity are estimated to be the part of generation by March 2018. These projects to be financed by these projects, funded by Chinese Exim Bank and Independent energy Manufacturers will construct these projects.

Table-1. CPEC Energy Priority Projects

Project Name	Capacity (MW)	Estimated Cost (US \$ M)
1 Port Qasim Electric Company Coal Fired, 2x660, Sindh.	1320	1,980
2 Sahiwal 2x660MW Coal-fired Power Plant, Punjab.	1320	1,600
3 EngroThar 4x330MW Coal-fired, Thar, Sindh.	1320	2,000
Surface mine in Block II of Thar Coal field, 6.5 metric ton per annum (mtpa), Thar Sindh.		1,470
4 Gwadar Coal /LNG / Oil Power Project, Gwadar	300	600
5 HUBCO coal power plant 1X660 MW, Hub Balochistan	660	9700
6 Rahimyar Khan Coal Power Project, Punjab.	1320	1,600
7 SSRL Thar Coal Block I-6.5 metric ton per annum(mpta) Thar, Sindh	1320	2,000
SSRL 2x660 MW Mine Mouth Power Plant,Sindh		
8 Quaid-e-Azam 1000MW Solar Park, Bahawalpur, Punjab.	1000	1,350
9 Dawood 50MW wind Farm, Bhambore, Sindh	50	125
10 UEP 100MW wind Farm, Jhimpir, Sindh	100	250
11 Sachal 50MW Wind Farm, Jhimpir, Sindh	50	134
12 SukiKinari Hydro Power Station, KPK	870	1,802
13 Karot Hydropower Station, AJK & Punjab	720	1,420
14 Matiari to Lahore Transmission line		1,500
15 Matiari to Faisalabad Transmission line		1,500

(CPEC Official Website)

The above table shows CPEC related energy projects. The first in the list is super critical technology project, Port Qasim Electric Company. 65 – 70% of Civil work including jetty on this project has been completed and power generating will start in Oct, 2017. However commercial operation of the project will start in June 2018.

About job creation opportunities, it is claimed by the administration spokespersons that 2,000 or more jobs are expected to be created for engineers. Sahiwal Coal-fired Power Plant is planned to start energizing in October 2017, and commercial operation is expected to start in December 2017. 95% of civil work has been completed on this project. Pakistan is constructing its first ever supercritical coal power plant and it will produce about 1320 megawatt.

Other than these Wind power projects named UEP 100MW Wind Farm, Jhampir; Dawood 50mw wind farm, bhambore; Sachal 50MW Wind Farm, Jhampir, will also start operating commercially in 2017. In Sindh, EngroThar 4x330mw Coal-Fired and Surface Mine in Block II of Thar Coal Field, 6.5 metric ton per annum (mtpa), SSRL Thar Coal Block 1 - 6.5 metric ton per annum (mpta) Thar, SSRL 2x660 mw Mine Mouth Power Plant; in Punjab, Matiari To Faisalabad Transmission Line and Matiari To Lahore Transmission Line; and in Baluchistan HUBCO Coal Power Plant 1x660 MW are expected to start operating commercially in 2019. The feasibility of Rahimyar Khan Coal Power Project, Punjab is in process.

In addition to the above mentioned energy projects, 6 energy projects are actively promoted on priority basis.

Table-2. CPEC Energy Projects

#	Project Name	Capacity (MW)	Estimated Cost (US \$ M)
1	Gaddani Power Park Project (2x660MW)	1,320	3,960
	Gaddani Power Park Project (Jetty + Infrastructure)		1,200
2	HUBCO coal power plant 1X660 MW, Hub Balochistan	660	970
3	KohalaHydel Project, AJK	1,100	2,397
4	Pakistan Wind Farm II 2X50 MW(Jhampir, Thatta, 100 Sindh)	100	150
5	Thar mine mouth oracle, Thar Sindh	1,320	1,300
6	Muzaffargarh Coal Power Project, Punjab	1,320	1,600

(CPEC Official Website)

The expected date of commercial operation of HUBCO coal power plant 1X660 MW, Hub Baluchistan, and Pakistan Wind Farm II 2X50 MW(Jhampir, Thatta, Sindh) is 2018/2019 whereas Gaddani Power Park Project is under study.

Table-3. GWADAR PROJECTS

#	Project Name	Estimated Cost (US\$ M)
1	East-Bay Expressway	140.6
2	Gwadar International Airport	230.00
3	Construction of Breakwaters	123.00
4	Dredging of berthing areas & channels	27
5	Infrastructure for Free Zone & EPZs port related industries	32
6	Necessary facilities of fresh water treatment and supply	130
7	Hospital at Gwadar	100
8	Technical and vocational Institute at Gwadar	10
	Total	792.6

(Rafiq, 2016)

Table-4. CPEC PROJECTS COST

PROJECTS	COST MILLION(\$)
Transport	12363
Energy	33043
Gwadar	792.6
Fibre cable	44
TOTAL	46242.6

(CPEC Official Website)

3. Conclusion

From the above study, we have concluded that energy consumption and generation is the basic necessity and a major indicator of the economic activity in Pakistan. Pakistan economy is suffering from the one of its severe power crises occurred in the past decade. The aftermath of such crisis in the form of power outage in presence of adequate factor of production restricts the participation of industrial sector in growth process. According to economic survey of Pakistan, the economy losses more than Rs.10 billion per year because of

such shortage of power, Additionally, the industrial sector because of such power loss shows a negative growth, which shows the retrenchments of jobs at a higher phase than job opportunities provides to the economy. The empirical findings of survey about aftermaths of electricity crisis on Pakistan economy shows that the crisis caused an estimated loss of billions of rupees per day to Pakistan economy, besides depriving 4.1 million people of jobs. The energy projects under CPEC will improve the economy by providing alternate and optimal power sources in replacement of Natural gas, and making Power available to domestic, commercial and industrial users. These projects will create thousands of direct and indirect employment opportunities. The construction of these projects will directly employ a great number of engineers and other skilled and unskilled workers. On the other hand, availability of generating power to industries in Punjab and Sindh region will increase production and hence the employment opportunities will be created. The energy projects in Baluchistan will empower the province, and do a part in eliminating the feeling of deprivation in the province.

References

- Akarca, A., & Long, T. (1979). Energy and employment: a time series analysis of the causal relationship. *Resources and Energy*, 2: 151-162.
- Huang, B.-N., Hwang, M., & Yang, C. (2008). Causal relationship between energy consumption and GDP growth revisited: A dynamic panel data approach. *Ecological Economics*. pp: 41-54.
- Kakar, Z., & Khilji, B. (2011). Energy Consumption and Economic Growth In Pakistan. *Journal of International Academic Research*.
- Lee, C.-C., & Chang, C.-P. (2007). Energy consumption and GDP revisited: A panel analysis of developed and developing countries. *Energy Economics*. pp: 1206-1223.
- Morimoto, R., & Hope, C. (2004). The Impact of Electricity Supply on Economic Growth in Sri Lanka. *Energy Economics* 26: 77-85.
- Oh, W., & Lee, K. (2004). Causal Relationship between Energy Consumption and GDP Revisited: The Case Of Korea . *Energy Economics*. pp: 51-59.
- Rafiq, A. (2016). CPEC & Related Projects. Paper Presented at the International Academia, 0-1.
- Rashid, A., & Haq, A. (2016). Electricity generation as a determinant of unemployment in Pakistan. *Journal of Chinese Economic and Foreign Trade Studies*. pp: 102-112.
- Rehman, K. (2008). Pakistan's Energy Security Challenge: Some Observations and Thoughts. *The Pakistan Development Review*. pp: 1011-1017.
- Riaz, T., & Stern, N. (1984). Pakistan: Energy Consumption and Economic Growth. *The Pakistan Development Review*. pp: 431-456.
- Spokesperson China's Foreign Ministry. (April 15,2015).
- Stern, N., & D.J. (2000). Multivariate cointegration analysis of the role of energy in the U.S. macro-economy. *Energy Economics*, 22: 267-283.
- Yoo, S.-H. (2006). The causal relationship between electricity consumption and economic growth in the ASEAN countries. *Energy Policy*. pp: 3573-3582.
- Yu, E., & Hwang, B.-K. (1984). The relationship between energy and GNP. *Energy Economics*. pp: 186-190.
- Yu, E., & Jin, J. (1992). Cointegration tests of energy consumption, income, and employment. *Resources and Energy*. pp: 259-266.

Websites:

- <http://cpec.gov.pk/energy>
- <http://cpec.gov.pk/infrastructure>
- <http://cpec.gov.pk/gwader>
- <http://cpec.gov.pk/others>
- <https://www.dawn.com/news/1177116>