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### Original Article

## Impact of CPEC on Social Welfare and its Significance on different Provinces of Pakistan

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### ABSTRACT

The China-Pakistan Economic Corridor will have enormous socio-economic impact and play an important role in the economic development of the two countries through the Belt and Road Initiative (OBOR). The purpose of this study is to determine whether the net social welfare impact of the CPEC project is significant in her four provinces and all districts of Pakistan. We will focus on three routes in particular. Data are based on 'previous studies collected under the Pakistan Social Standards Measurement (PSLM) Survey 2014-15' and methodology measures simple mean standard deviation, t-test, correlation, and key indicators Based on state-to-state variance for Impact of CPEC on social welfare in all provinces of Pakistan. In the previous study, the social welfare index was linked to access to education (primary, secondary and high school net enrollment rates), health (health of children and mothers), housing (roof quality, safe water supply system, gas for cooking). Fuel). Taken. However, we continue to note that the impact of the CPEC project is significant in all provinces of Pakistan. In terms of net impact, the CPEC project's results are significant, as this large-scale project will improve geographical connectivity and create millions of job opportunities for local people, resulting in increased household income. Expected to reach the target. The development of this project suggests that Pakistan's social welfare will increase by 5.21 percent of her. At the state level, the impact of the highest growth in social welfare can be categorized as follows: Baluchistan (6.4%), Sindh (6.31%), Khyber Pakhtunkhwa (5.19%) and Punjab (3.5%).

## INTRODUCTION

### Research background

The concept of trade corridors has always been a mainstay of compensation since prehistoric times. Even before there was a currency or tax system, 150,000 people were involved in the exchange of goods and services by sea, camel, etc <sup>1</sup>.

### Definition of Economic Corridor

It is the culture of trade relationships, institutions and structures, trade agreements and contracts, status, mandated laws and customs that govern the movement of goods, services and information in the geographical environment between people within and across national borders is matrix.

Examples of trade corridors.

#### I. Silk road

It is one of the oldest corridors from Africa to China and a living example of economic growth and prosperity. On the one hand, this corridor has supported the socio-economic development of all geostrategically located countries. On the other hand, this route facilitated the exchange of philosophical intelligence and infrastructure through intercontinental links between Asia, Europe, Africa and the Americas.

#### ii. African economic corridors

Corridors connecting the East, West and South regions are proving to be economic drivers for changing economic scenarios, revitalizing trade, commerce and employment opportunities on a continental scale. The rest of Africa, Asia and the rest of the world also need economic and trade corridors, and other poor regions also need economic and trade corridors.

#### iii. Corridors between the United States and Canada

Both countries recognized its importance in 1990. Huge amounts of funds have become available.

Appropriate laws have been passed to facilitate the construction of trade corridors. As a result of these measures, her 626 billion worth of goods were traded between the two countries in 2006 <sup>2</sup>.

### Topic introduction

The effect of CPEC in resolving the financial crisis brings many reasons for the development of public and local framework in Asia, as it works on the seriousness and efficiency of provincial foundation. It additionally helps increase residing expectations and diminish destitution by associating disconnected places and individuals to key monetary focuses and showcases, in this manner restricting advancement holes between districts <sup>2</sup>. Like the China situation, the Pakistan Financial Passageway (CPEC) is generally viewed as a key Chinese speculation that will revive the Pakistani economy, yet the undertaking is of undeniably more essential significance, uniting nations in the locale. It can possibly get you included. Fashion connections that join for shared financial advantage, consequently making conditions that advance harmony. CPEC's essential significance lies in the way that the renewal and development of the Silk Street will bring more financial open doors not exclusively to Pakistan yet in addition to different nations in the district, lessening reliance on oceanic shipping lanes. . The Financial Hallway (CPEC) is of basic significance to the two nations. Pakistan needs Pakistan to defeat its monetary turn of events, social and energy challenges, while China grows its boundary impact, associates or pools worldwide center points, and gets future energy supply. We really want Pakistan to get our courses and shipping lanes.

Pakistan has an extraordinary topographical scene situated at the junction of South Asia, yet is viewed as quite possibly of the most un-coordinated district on the planet. The CPEC project, with three

speculations adding up to US\$46 billion, will be created in 2013 under a respective key organization among Pakistan and China. This is a drawn out plan from 2014 to 2030 and incorporates two requirements for the passageway: the improvement of Gwadar Port and the foundation of a land transport connect between the city of Gwadar in southwestern Pakistan and northern China. . Western Xinjiang Independent District. The CPEC venture will be finished in his three terms: present moment, medium term and long haul. The momentary program was finished by 2020, including an early reap project through 2017. The medium-term program is supposed to be finished by 2025 and the drawn out project is supposed to be finished by 2030.

Pakistan denoted a 43-year lease of Gwadar Port with China, leasing 2,300 hectares of land to China to improve Gwadar's most important uncommon monetary zone (SEZ). It is evaluated that expecting China used the proposed CPEC course, transportation costs would drop in a general sense and trade travel times would be diminished by more than 10 days<sup>3</sup>.

In agricultural nations like Pakistan, the peculiarity of joblessness and secret joblessness are at the same time happening as the number of inhabitants in the unfortunate keeps on developing. Advancing comprehensive and supportable financial development, work for all and good work is viewed as key to finishing outrageous destitution and craving, which is designated "practical perceived as one of the improvement objectives. Business and fair work can work on friendly government assistance in the event that means are accepted to extend open doors for useful, fulfilling and fulfilling work. Further develop laborer abilities and potential<sup>4</sup>.

As per UNDP (2015), Pakistan positions 147th out of 188 nations on the Human Improvement Record, making him quite possibly of the most un-created country. Taking into account the ongoing situation, CPEC projects are mostly connected with interests in Pakistan for the improvement of different areas. Energy and framework advancement will bring him 700,000 direct positions somewhere in the range of 2015 and 2030, expanding the country's yearly financial development by 2-2.5 rate focuses<sup>5</sup>.

What's more, transportation and foundation ventures will give simpler and less expensive admittance to homegrown and worldwide business sectors, work with interregional and global item exchange, further support private area speculation, and increment efficiency. The venture will likewise influence the financial exchange. Solid development movement is supposed to help deals and stock costs in the concrete and steel areas. More popularity and accessibility of energy could likewise expand the efficiency of producers. Buyer stocks will likewise profit from rising interest and pay levels<sup>3</sup>.

The main purpose of this study was to determine whether the net impact of CPEC is significant, and to analyze and predict which states will be most impacted by his CPEC project. The goal is to examine the correlation between variables within states, whether positive or not. Economic indicators, education, health, etc. standard of living or housing. Discuss whether differences between states matter. However, previous studies have focused on districts and states within the sphere of influence of the three routes1. West, Middle, East research limitations. As the CPEC project is currently under construction, it will source secondary data from previous studies collected from Pakistan's Social Standards of Living Measures (PSLM).

### **CPEC has three routes**

1. The Eastern route should go through Gwadar - Turbat - Panjgur - Huzdal - Latdero - Cashmore - Rajanpur - Dera Ghaj Khan - Multan - Faisalabad - Pindibatiang - Rawalpindi - Hasanavdar onwards.
2. The central route must pass through: Gwadar-Turbat-Panjgur-Huzdal-Latdero-Kashmore-Rajanpur-Dera Ghazi Khan-Dera Ismail Khan-Banne-Kohat-Peshawar-Hasanabdar-.
3. The western course goes through:Gwadar - Turbat - Panzigur - Huzdar - Karat - Quetta - Zoub - Dera Ismail Khan Banu - Kohat - Peshawar - Hasanavdar -, etc.

To study and decide the net effect of CPEC on friendly government assistance in the Pakistani economy, taking into account region and state level examines showing that wellbeing, training, lodging and composite files are related with endlessly immature regions. Work on 3 measurements through CPEC? Which markers for the most part affect CPEC shipping lanes? That is the reason we are directing this review. Some writing on the CPEC project and its financial effect on Pakistan is explored. Training and wellbeing remain forever inseparable with movement time and versatility.

It was explored that more limited times and more advantageous travel further develop local area admittance to wellbeing and instructive offices <sup>6</sup>. Taking into account the CPEC situation, it was assessed the effect of decreased travel time after the presentation of CPEC on school enlistment and admittance to maternal and youngster medical services in 11 districts along the western course. She found that the decreased travel time prompted a critical expansion in school enlistment and participation, as well as a huge expansion in the work of female wellbeing laborers.

Hussain and Ali (2015) contended that CPEC upgrades social associations between individuals. This is significant for both Pakistan and China as it will build Pakistan's financial action. In this association, it was chosen to foster a CPEC end-all strategy by 2015 of every four significant areas of collaboration: transport, foundation, energy and modern collaboration.

Also, China's essential endeavors to construct the 21st century Silk Street Monetary Belt and Sea Silk Street will speed up future local and worldwide turn of events (Xu Dong, 2015). It is one of the most seasoned passageways from Africa to China and a living illustration of financial development and success. From one viewpoint, this hallway has upheld the financial advancement of all decisively found nations. From one perspective, this way worked with the trading of astuteness and reasoning through intercontinental connections between Asia, Europe, Africa and America (Bernstein 2008).

Hussain (2015) contended that industrialization in "unique monetary zones" along CPEC would assist with tidying up Pakistan's maturing modern offices, while Tong (2015) contended that work creation was basically from neighborhood networks, with China and I'm expecting it's not from a particular country. It turns into the prefecture of the country. It is additionally dissected that many tasks through CPEC are supposed to make huge positions. Pakistan's little economy contrasted with China requires extraordinary security measures for nearby enterprises <sup>7-8</sup>.

Bengali (2015) contends that he examines three kinds of contentions encompassing his CPEC project: admittance to business sectors and work, training, wellbeing and socialization open doors in certain districts characterized as local imbalances <sup>9</sup>.

The absence of adequacy was the premise of disappointment and addressed disobedience. Making of conditions that lead to high security costs. He determined the near open door cost of his three courses utilizing three factors.

He broke down populace thickness, all out region and absolute creation of the four significant harvests and reasoned that the western course was most likely the briefest and least expensive as far as any open door and movement costs. Utilizing the recently refreshed monetary intricacy measure to project yearly development rates over the course of the following ten years, higher development rates were supposed to reflect expanded creation limit. Pakistan's yearly development rate throughout the following ten years is projected to be 5.07 percent, with a further development of 4.28 percent. It was likewise expected that the nations with the best development potential were mostly South Asia and East Africa <sup>10</sup>.

Gilbert and Nilanjan (2012) examine that proficient vehicle framework expands the Gross domestic product of all South Asian economies. The most noteworthy pace of increment will be Nepal's ongoing Gross domestic product of 14.8%, trailed by Bangladesh at 4.10% and Sri Lanka at 4.6%. In outright terms, India will be the greatest recipient of her more than \$4.3 billion, trailed by Pakistan with her \$2.6 billion. This will influence family prosperity by decreasing nearby vehicle expenses, and will unmistakably affect the neighborhood poor. Seven financial plan impacts were viewed as certain for Pakistan, including South Asian nations, recommending a decrease in the outright destitution line is normal <sup>11</sup>.

It was brought up that CPEC isn't simply a street, it will bring an elevated degree of network

through streets, railroads, pipelines, fiber optic financial zones, and so forth. It was additionally brought up that the South Asian locale is viewed as quite possibly of the most un-coordinated district on the planet. The undertaking hence holds extraordinary commitment for Pakistan to interface with the locale, and for China to incorporate its west with Pakistan and its adjoining courses through oil imports <sup>12</sup>.

CPEC is a milestone project that will lift a great many Pakistanis out of the neediness trap. Projects incorporate structure material and article of clothing ventures, modern park projects, building dams, building atomic reactors, building street and rail organizations to make occupations and urge individuals to claim these tasks. Exceptional medical clinics, specialized and professional preparation offices, water supply and circulation in green regions will likewise work on the personal satisfaction of the majority <sup>13</sup>.

The financial writing upholds the view that superior admittance to homegrown framework administrations prompts monetary thriving <sup>9</sup>.

According to extensive research on corridors around the world, (CPEC) means that the Kashgar-Gawadar Corridor falls into the category of cluster corridors. According to this theory, clusters of related firms and industries promote competition in many ways. It is estimated that 3 billion people will benefit from this project. The construction and development of CPECs will not require cross-border physical interventions as the availability of cross-border infrastructure tends to result in lower transport costs, higher trade volumes, regional integration and increased labor mobility. It will improve infrastructure.

**Express Grandstand, July 16, 2013**

A Special Economic Zone (SEZ) is a geographically demarcated area that is centrally managed to take advantage of the physical location within the zone. These zones have separate customs areas that benefit from duty-free status and associated liberty laws<sup>14</sup>. SEZs provide direct and indirect economic benefits, such as job creation and foreign exchange income. Or knowledge-based urban growth. Special economic zones are created to meet the needs of export processing, centralized industrial parks, free trade activities, free ports for joint or specific trade. China has created special economic zones that provide all these and related services to a greater or lesser extent, rather than focusing on her one function of the special economic zone<sup>14</sup>.

Statistical methods are often used to measure happiness. The main methods include simple means, standard deviations, t-statistical correlations, and their interstate differences. This study determined whether the net impact of CPEC in districts of Pakistan is significant. Use the t-statistic to check the significance of the means and find correlations within variables. Then check the difference between the states.

## **Data Methodology**

### **Background of Analysis**

To examine the socio-economic welfare impact of CPEC projects in different regions of Pakistan, an extensive district level analysis has already been conducted. The study employs data from the *Pakistan Social and Living Standards Measurement (PSLM) Survey 2014-15*<sup>15</sup>. In the present study we take secondary data from this study on a number of indicators measuring the effect of CPEC on various districts. These data are further analyzed to determine whether the projected effect of CPEC on different indicators are statistically significant in each districts of Pakistan.

This research primarily focused on the key areas of training, wellbeing, including youngster and maternal wellbeing, and lodging conditions in the general setting of the Manageable Improvement Objectives (SDGs). The review shrouded 115 areas in Pakistan, 36 locale in Punjab, 24 regions in Sindh, 25 regions in KPK and 30 regions in Balochistan. His two areas in Balochistan, specifically Panjgur and Huzdar, were not covered by PSLM 2014-15 because of safety reasons, so the qualities were determined utilizing the earlier year's development rate.

The reason for this study is to dissect the effect of CPEC on various regions of each state in positioning request, in view of a composite social government assistance file with three aspects: admittance to training, admittance to kid and maternal wellbeing, and way of life estimated as lodging conditions. Marker utilized in Pakistan's Composite Social Government assistance List. Pointers are the foundation of estimation and their quality, precision and extension decide the data content of government assistance measures. The selection of markers ought to be plainly legitimate, interpretable, and intelligent of the heading of progress<sup>16</sup>. In such manner, markers for estimating social government assistance in locale of Pakistan are:

## **A) Education pointers by school area**

### **i) Essential Net Enlistment Rate**

The quantity of youngsters matured 6 to 10 in primary school (grades 1 to 5) separated by the quantity of kids matured 6 to 10 x 100. Admission to Kutch is avoided.

### **ii) Normal net enlistment rate**

Partition the quantity of her long term olds in center school (sixth grade to her eighth grade) by the quantity of long term olds and duplicate by 100.

### **iii) Matura/Optional Net Enlistment Rate:**

The quantity of kids matured 14-15 going to secondary school (grades 9-10) isolated by the quantity of youngsters matured 14-15 increased by 100.

## **B) Kid and maternal wellbeing markers by province**

Kids 12-23 months old enough who answer from their records that they will be completely immunized.

Communicated as a level of all kids matured 12-23 months. Delegated completely inoculated. Your youngster probably got:

- I. "BCG", DPT1, DPT2, DPT3, Polio 1, Polio 2, Polio 3, and Measles.
- II. ii) Pre-birth:
  - All wedded ladies between the ages of 15 and 49 who have conceived an offspring over the most recent 3 years and got no less than one antenatal consideration during their last pregnancy. Communicated as the level of all ladies matured 15 to 49 who were at any point hitched who were released over the most recent 3 years. For the beyond 3 years.
- iii) Safe labor in an organization;
- iv) Post pregnancy:
  - Post pregnancy is the period that goes on around a month and a half from birth. All ladies matured 15 to 49 who were hitched had a post pregnancy assessment Express as a rate.

### C) Lodging record by locale as way of life

- I. Level of families by roofing material (RBC/RCC). ii) An essential wellspring of safe drinking water (faucet water or engine siphon).
- II. Level of families involving gas as a cooking fuel.

### Data analysis

This part of the work is related to data analysis. Statistical methods are often used to design Poverty and Happiness Measures<sup>17</sup>. Key procedures incorporate head part investigation, numerous correspondence examination, bunch examination, dormant class examination, and component examination. In this study he made two files. In the first place, we use head part examination to rank the regions of Pakistan regarding social government assistance<sup>18</sup>. Head Part Examination (PCA) produces parts in plummeting request of significance. H. The primary part depicts the most extreme

scope of inconstancy of the information and the last part portrays the base scope of fluctuation<sup>19</sup>.

In view of these elements, a composite social government assistance record is developed to rank the social government assistance of regions in Pakistan. The second is a settled weighted social government assistance list like the Human Improvement Record UNDP (2014)<sup>14</sup> and Alkire *et al.* was created to gauge the effect of his CPEC project on working on personal satisfaction in all regions of Pakistan. Like the Human Advancement File, these records measure normal execution in three key elements of human turn of events<sup>20</sup>. Schooling, wellbeing and a fair way of life.

### Analysis framework

This part of the study is related to statistical methods. The analytical framework includes means, standard deviation t-statistics, and correlations with tables and graphs to determine whether CPEC effects are statistically significant across districts in Pakistan.

### Projected District-Wise CPEC Effects

A ranking based on composite index and graphical analysis to show how likely the Comprehensive Social Welfare Index (CSWI) could be impacted by CPEC in all districts of Pakistan to improve education, health, housing, etc. indicate.

Statistical hypothesis

$H_0, csw_{ij} = 0$  means that the null hypothesis is accepted and vice versa.

$H_1, csw_{ij} \neq 0$  means reject the alternative hypothesis and vice versa.

### Importance of CPEC Impact

A t-test is used to determine the significance of the CPEC effect on districts in Pakistan. The following formula is given.

$$t = (\bar{x} - \mu) / S \sqrt{n}$$

Use this statistical method to determine the importance of CPEC's impact on states and counties. Differences between states

When comparing states, we take mean values of CPEC impact, such as Punjab vs Sindh, Punjab vs KPK, Punjab vs Balochistan, KPK vs Balochistan, and apply t-test. Decide if they matter.

Consistency of CPEC impact across metrics

Identify correlations between indicators within your state, such as education and health, education and housing, and health and housing. This is how we can see how much these indicators will improve with his CPEC appearances in the provinces.

## **Results and conclusion**

### **Background of data analysis**

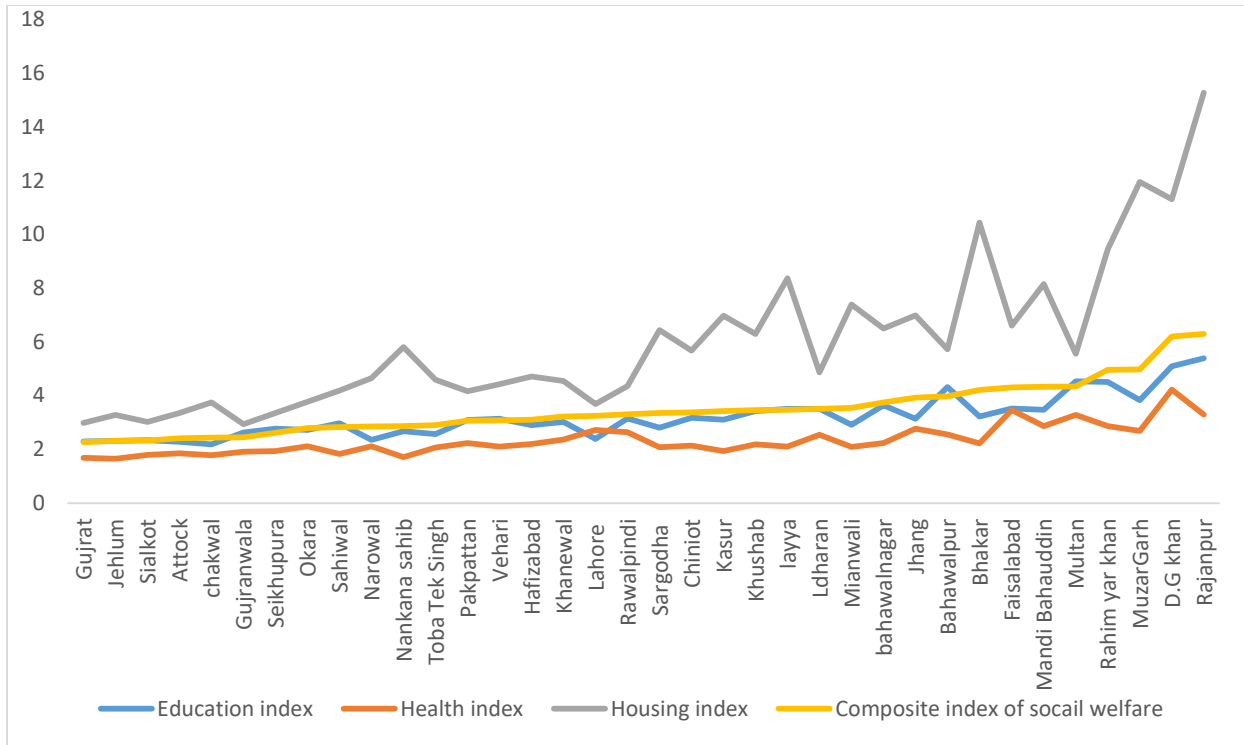
Determine whether CPEC's impact on net social welfare in the four states and their respective districts is significant. According to the study, the 21st project will be of great importance in enhancing bilateral connectivity, improving people's lives and promoting practical economic and trade cooperation. This goal directly benefits the socioeconomic development of Pakistan, especially the western and northwestern regions, giving great importance to Gwadar Port. The breakdown of CPEC projects is 12 in Punjab, 13 in Sindh, 8 in KPK and 16 in Balochistan. The CPEC scenario is projected to create nearly 700,000 direct jobs between 2015 and 2030, ultimately boosting the country's annual economic growth by 2-2.5 percentage points<sup>15</sup>.

A high index score indicates a high welfare rank, a low score indicates welfare deprivation. In Pakistan, it is analyzed that there are large differences between districts. Most districts of Balochistan, i.e. Chagay, Kira Abdullah, Della Bugatti and Kohistan are subordinate. From a welfare perspective, Balochistan is considered the most disadvantaged

province, with 62% of the population falling into the poor quality of life category<sup>19</sup>. Welfare in parts of other parts of Pakistan is also at risk. B. Ranjan Pure, Tatta, Mr. D.G. Khan and Mr. Umerkot. Investments in CPEC are projected to have significant direct and indirect impacts on the Pakistani economy. The direct impact of investment could boost GDP growth to more than 6% in 2016-18, while the indirect impact could have long-lasting effects on Pakistan's economy, with heavy investment in the energy sector. The direct effects are likely to be far greater. This is to revitalize Pakistan's current industries and attract private investors. The World Bank and IMF have also linked future growth rates to the success of the CPEC project, predicting that Pakistan will need a growth rate of over 7 percent to ensure real improvement in its economy.

The purpose of this analysis is to determine the net impact of social assistance on education, health care, and housing in four state districts. Therefore, we analyze whether CPEC has a significant impact on Pakistani provinces. First get the mean of the metric and then use the standard deviation (S-D) for the variation of the data. Then apply a t-test to determine if the metric is significant. Compare the states to each other, determine the mean, regardless of whether the states are significant, and apply a t-test to the mean CPEC impact. and assume that the correlations within the variables are mutually positive. Use statistical techniques such as mean, standard deviation, t-statistic, and correlation. The differences between states are shown in the table below. I'll start by explaining the graphs, then by explaining the tables for each state.

**Graph analysis of Punjab is given below.**



Punjab is the most populous of Pakistan's four provinces, with 55 percent of the total population, 25.8% of the country's landmass, and 21% of its residents living in poverty<sup>21</sup>. Rahim Yar Khan, Jhang, Khanewal, and Nankana Sahib all reported high rates of male youth unemployment. The current CPEC projects are expected to have a significant influence on quality of life at all levels given the provincial profile. The 12 Punjab-related initiatives are listed below:

Optical Fiber Cable from Rawalpindi to Khunjab, Haier & Ruba Economic Zone II, Karachi-Lahore Motorway (Sukkur-Multan), Upgrade of ML-1, Sahiwal Coal Fired Power Plant, Rahimyar Khan Coal Power Plant, Karot Hydro-Power Plant, Lahore Orange Line Metro Train, Matiari-Lahore and Transmission Line, Quaid-i-Azam Solar Park in

Bahawalpur, Matiari-Faisalabad Transmission Line. Not only will these projects generate millions of job possibilities, but they will also raise the level of living in the neighborhood.

In this Graph we took the districts on horizontal axis and the units of index is on vertical axis. This graphic initially shows low-level districts such as Gujrat Jeram Sialkot. These districts are indirectly affected by CPEC in terms of social welfare such as education and health and are not within the sphere of influence, but Mandi Bahauddin Multan Rahimyar Khan D.G Khan and Rajanpur Districts such as are within the sphere of direct influence of CPEC. Therefore, combined social assistance index and housing index are important across Punjab province compared to education and health.

**Table.1 Significance of the effect of CPEC on province of Punjab.**

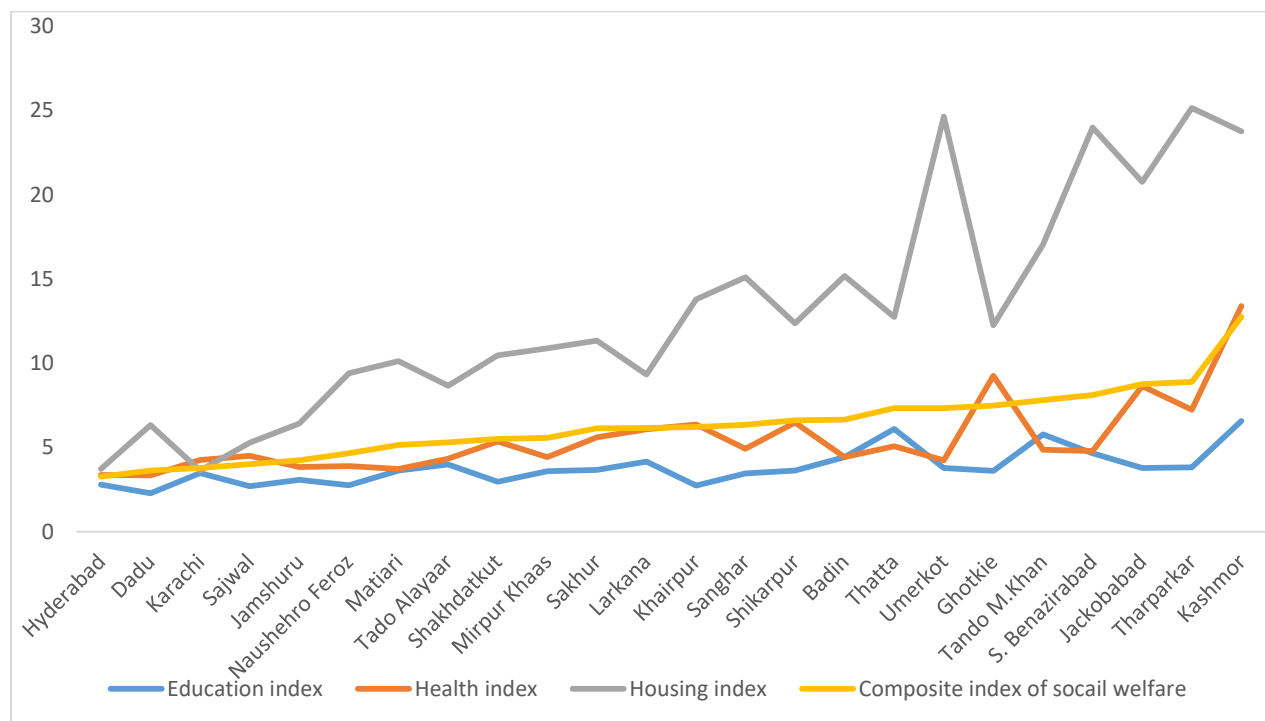
Punjab	Statistic technique	Education index	Health index	Housing index	Composite index

1	Mean	3.1928	2.3431	5.9902	3.4883
2	Standard deviation	0.7848	0.5667	2.8370	0.9824
3	t statistics	4.0681	4.1346	2.1115	3.8509
4	P-values	0.0003	0.0002	0.0419	0.0011

Table 1 shows that the average social welfare impact in Punjab is 3.5 per cent, while the three dimensions of education, health and housing account for 3.18 per cent, 2.34 per cent and 5.9 per cent respectively. . The standard deviation and mean used to calculate the t-test mean that the P-value of 0.00025 for education is significant. The p-value for health was significant at 0.0002, the p-value for housing was significant at 0.0412, and the p-value for the composite index was significant at 0.0011, indicating that the net effect of CPEC on both these indicators in Punjab was significant. It indicates that

there is. However, the living conditions are not as impressive as others. This may be the reason why most districts of Punjab lag behind in terms of housing index due to "Wadereism or Chowdhuryism, a system in which feudal lords own large tracts of land". They never want their neighbors' quality of life to improve. When it comes to homes, building an RCC/RBC roof means having clean drinking water and using gas for cooking. This could be an opportunity for governments to connect areas neglected by CPEC projects through CPEC routes.

**Graph analysis of Sindh is given below.**



Sindh is second in terms of population, with a population rate of 24.3 per cent and a poverty rate of

44.65 per cent. Sindh has her two commercial ports, Bin Qasim Port and Karachi Port. 13 of his CPEC projects related to Sindh are:

Matiari Lahore Transmission Line, Matiari Faisalabad Transmission Line, Port Qasim Power Station, Englo Thar Power Station and Block II Open Pit Mine of Thar Coalfield, Dawood Wind Farm, Jinpil Wind Farm, Sachar Wind Farm, China Sneek wind farm, and ML-1 upgrades. Joint Feasibility Study for Thar Coal Block I and Mine-mouth Power Plant, Gwadar Nawabshah LNG Terminal and Pipeline, Karachi-Lahore Highway (Sakr Multan)

and ML-1 Modernization. The impact of these multi-million dollar projects will have a significant impact on the quality of life in each district of Sindh.

In this graph, we plotted districts on the horizontal axis and exponential units on the vertical axis. Even the districts that rank lower in terms of social well-being shown in the chart also show increases in social well-being. Districts within the Zone of Influence have a relatively high influence compared to other districts. In this chart, education and health lag behind the social assistance index and housing.

**Table.2 Significance of the effect of CPEC on province of Sindh.**

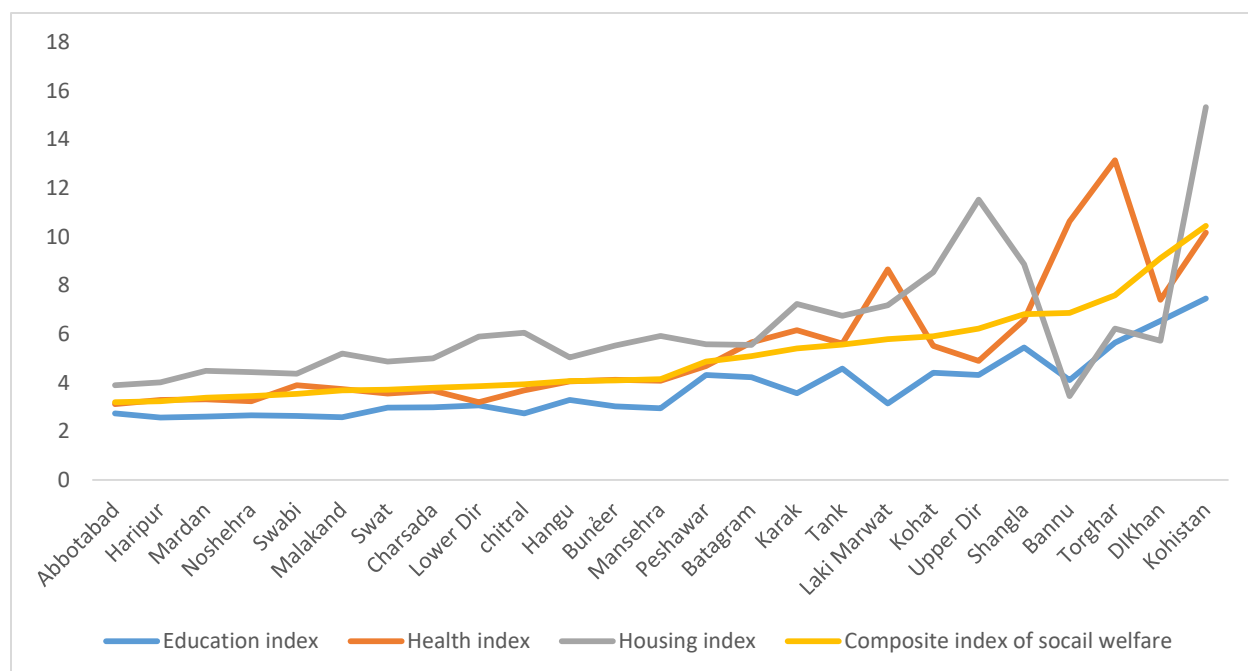
Sindh	Statistical technique	Education index	Health index	Housing index	Composite index
1	Mean	3.0875	5.5142	13.0075	6.315
2	Standard deviation	1.0717	2.2650	6.57470	2.1555
3	t-statistics	3.5526	2.4345	1.97841	2.999
4	P- value	0.001696	0.023085	0.0599802	0.0064

Table 2 shows that in Sindh province there was a significant increase of 6.31 per cent in the social assistance index, the three components of which were education 3.08 per cent, access to child and maternal and child health services 5.51 per cent, and housing quality improvement 13.00 per cent. is shown. Therefore, we use the statistical mean and standard deviation to calculate the t-test. The p-value for education is significant at 0.0017 and the p-value for health is not significant at 0.0235. The p-value for housing is also significant at 0.0599, and the p-value for the composite index is significant at 0.0064. This shows that with the advent of CPEC, the education

index compares well with the other two her indicators. This may be the reason why most districts in Sindh are poor in terms of health and housing. The health status of children and mothers shows that food, water and shelter are inadequate, especially in Thar Parker, Dado and Saajwal. Rural areas in Sindh, in particular, are neglected from a social welfare perspective. As there is little government or NGO presence in these areas, this could be an opportunity for governments to include underdeveloped areas in CPEC projects.

At least eight projects under CPEC are related to his KPK. These projects include:

**Graph analysis of Khyber Pakhtunkhwa are given below**



ML-1 modernization, establishment of Havelian Dryport, KKH II (Havelian Tacot), ML-1 modernization, KKH III (Lycot Tacot), D.I. • Joint feasibility study hydropower project on Kinari and fiber optic cable from Rawalpindi to Hanjurab. Khyber Pakhtunkhwa (KPK) is the smallest province in terms of area, located in northwestern Pakistan, and accounts for 11.9 per cent of the total population. According to BISP (2016), the state's poverty

population was 36.9 percent and youth unemployment was 23.8 percent<sup>21</sup>.

In this graph, we plotted districts on the horizontal axis and exponential units on the vertical axis. Housing-related quality of life had the greatest impact on well-being, followed by health and education at all district levels. Districts along the CPEC route such as Peshawar, Kohat, Bannu and Dera Ismail Khan have been greatly affected in terms of social welfare

**Table.3 Significance of the effect of CPEC on the Province of Khyber Pakhtunkhwa**

Statistical techniques	Education index	Health index	Housing index	Composite index
<b>Mean</b>	5.864	4.4488	6.2748	5.1176
<b>Standard deviation</b>	10.3197681	2.66625571	2.58904442	1.898932332
<b>t-test</b>	2.860483	2.043232	2.423597	2.694988
<b>P-values</b>	0.574873	0.052157	0.0232734	0.012651

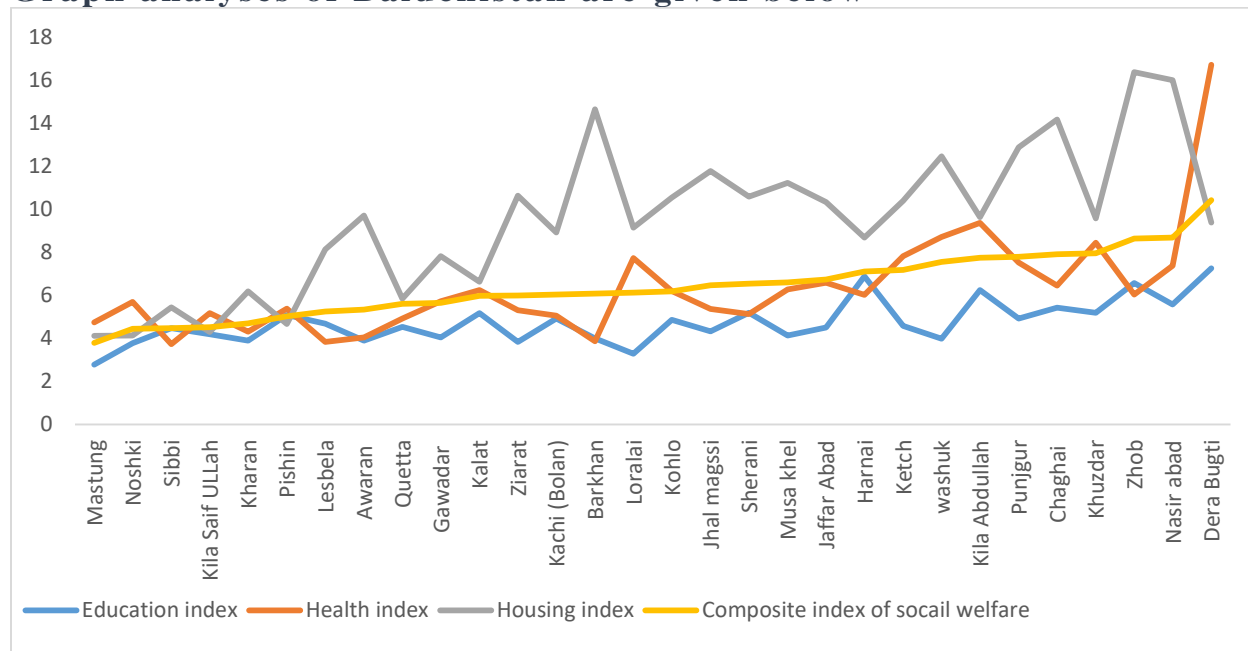
An overview of social care in KPK districts is shown in Table 3. The comprehensive index of social

welfare showed an increase of 5.12 percent, and the three dimensions of education, health and housing showed an increase of 5.86 percent, 4.45 percent and

6.27 percent respectively. Since we are using statistical methods, we use the mean and standard deviation to calculate the p-value for the t-test. Education 0.5748, Health 0.0522, Housing 0.0233, Composite Index 0.0126 are less significant. This may be due to the low income of the people and the lack of focus by governments and NGOs on basic

facilities such as education, housing and health, so the emergence of CPEC is expected not only for social welfare but also for social welfare. It will boost the KPK's overall economy. This could be an opportunity for governments to develop through the CPEC pathway, including areas neglected from a social welfare perspective. .

**Graph analyses of Baluchistan are given below**



An overview of social welfare in KPK District is shown in Table 3. The overall index of social assistance showed an increase of 5.12 per cent, while the three dimensions of education, health and housing showed increases of 5.86 per cent, 4.45 per cent and 6.27 per cent respectively. Since we are using statistical methods, we use the mean and standard deviation to calculate the p-value for the t-test. Education 0.5748, Health 0.0522, Housing 0.0233,

Composite Index 0.0126 doesn't mean much. This is likely due to the low income of the people and the lack of focus on basic facilities such as education, housing and health by governments and NGOs. expected in the field. It will boost the economy of the entire KPK. This could be an opportunity for governments to go down the CPEC path, even in areas that are neglected from a social perspective.

**Table 4: Significance of the effect of CPEC on Province of Baluchistan.**

KPK	Statistical techniques	Education index	Health index	Housing index	Composite index
1	Mean	4.741	6.328	9.48	6.418

<b>2</b>	<b>Standard deviation</b>	1.023	2.458	3.395	1.489
<b>3</b>	<b>T statistics</b>	4.635	2.574	2.792	5.307
<b>4</b>	<b>P-values</b>	6.98E-05	0.015434	0.0091714	0.0001726

A comprehensive index of social welfare is shown in Table 4. It shows a growth of 6.42 percent due to the huge investments in this region. Meanwhile, the growth rates of the three aspects are: The education index increased by 4.74%, the health index by 6.33%, and the housing index by 9.4%. The t-test p-values for education 6.98E-05, health 0.0154, housing 0.0091, and composite index 0.0001 are significant because we use the mean and standard deviation to estimate the t-test, but education and health are less impressive. This is likely due to the low income of the people and the lack of focus on education and health by local governments and

NGOs. The enrollment rate in elementary, junior high and high schools is low. 55% of children in Balochistan are out of school. This indicates the presence of both educational and medical facilities. Hospitals do not have basic care facilities that would improve with the onset of CPEC.

Here we discuss whether the impact of CPEC on various socioeconomic indicators is even across states. To do this, we apply a t-test to the difference between the mean influences for each pair of states. The t-statistics for all pairs are shown in Table 5.

**Table 5: Difference in the Impacts of CPEC across Provinces**

Provinces	Education index	Health index	Housing index	Composite index
Punjab vs Sindh	-0.46276	-1.35818	-0.97997	-1.21662
Punjab vs KPK	-0.3869	-1.13918	-0.07408	-0.76205
Punjab vs Baluchistan	-1.20072	-1.57935	-0.78873	-1.6417
Sindh vs Baluchistan	-0.62992	-0.24336	0.476714	-0.03993
KPK vs Baluchistan	-0.56909	-0.24231	-0.75068	-0.53878
Sindh vs KPK	0.011211	0.018682	0.952815	0.422317

This table shows the social assistance index values for education, health and housing and the composition of social assistance across provinces such as Punjab vs Sindh, Punjab vs Kpk, Punjab vs Balochistan, Sindh vs Balochistan, Sindh vs Balochistan. Kpk and Kpk vs Balochistan are not very significant. There is no real discrimination between states. CPEC develops all provinces equally in terms of social welfare Correlation within variables.

Province	Education vs Health	Education vs Housing	Health vs Housing
Punjab	0.798305	0.774556	0.609058
Sindh	0.483984	0.535368	0.524905
KPK	0.721428	0.671346	0.382406
Baluchistan	0.536545	0.327748	0.204905

We are currently analyzing correlations between her CPEC impacts within each state on various socioeconomic indicators such as education vs. health, education vs. housing, and health vs. housing. In the table, the social indicators of education, health and housing in Punjab and Sindh are positively correlated with each other, while the KPK health vs. housing index and the Balochistan health vs. housing index are more correlated than other regions. Punjab and Sindh provinces have less. Balochistan's

education vs. housing and health vs. housing scores are below 0.5 and KPK's health vs. housing scores are below 0.5, indicating a shortage of education and health institutions. These metrics may be improved through the CPEC project. Correlations within variables are positive. The indicators representing each state are similarly improved<sup>22-23</sup>.

### Summary conclusion and recommendation

The China-Pakistan Financial Hall will have gigantic financial effect and assume a significant part in the monetary improvement of the two nations through the Belt and Street Drive (OBOR). The motivation behind this study is to decide if the net social government assistance effect of the CPEC project is critical in her four territories and all locale of Pakistan. We will zero in on three courses specifically. Information depend on 'past examinations gathered in light of Pakistan Social Guidelines Estimation (PSLM) Study 2014-15' and strategy depends on basic mean standard deviation, t-test, relationship, and between commonplace difference to quantify critical effect of CPEC on friendly government assistance in all regions of Pakistan. In the past review, the social prosperity record was estimated on three aspects connected with admittance to training (essential, optional and

secondary school net enlistment rates), wellbeing (youngster and maternal wellbeing) and lodging (rooftop quality, safe water framework, gas for cooking fuel). Nonetheless, we keep on taking note of that the effect of the CPEC project is huge in all territories of Pakistan. The outcomes as far as net impact of the CPEC project are supposed to meet the objective, as this enormous scope venture will work on geological availability and set out huge number of business open doors for neighborhood individuals, bringing about expanded family pay. The advancement of this task proposes that Pakistan's social government assistance will increment by 5.21 percent of her. At the state level, the effect of the greatest development in friendly government assistance can be ordered as follows: Balochistan (6.4%), Sindh (6.31%), KP (5.19%) and Punjab (3.5%). The last effect is additionally shown by the way that her three parts of social government assistance matter. Schooling 3.85 percent, wellbeing 4.74 percent and lodging 8.6 percent, additionally showing critical development in lodging conditions. While examining social government assistance influences at the state and region level, it is essential to take note of that states or locale with more elevated levels of destitution or lower levels of abundance experience altogether better personal satisfaction contrasted with different states or areas. Furthermore, regions situated on the three courses have seen critical development in government assistance. Balochistan, Sindh and KPK are not however amazing as Punjab as Punjab seems to be significant regarding social government assistance. The explanation might be that neighborhood states and NGOs are not offering adequate types of assistance like training, clinical consideration, and lodging, and there might be an absence of satisfactory

subsidizing for these social administrations. The approach of the CPEC course will work on these pointers. There are not many contrasts between states. This shows that there is no genuine distinction among states and all states are similarly impacted by her CPEC project. The relationship inside the state factors of Balochistan and KPK is positive. A few measurements are beneath 0.5 and may work on over the long haul through CPEC. The CPEC venture can be said to help the economy of Pakistan and Pakistani regions.

All in all, China has previously put US\$14 billion of every 30 beginning phase projects, with 16 finished or under development. CPEC's accomplishments are a picture of a common long for obscure success for the locale.

### **Recommendation**

This could be an opportunity for governments to include areas neglected from a social welfare perspective. The CPEC project he said could develop from three sides, especially the western route, which is more effective for China, at least in terms of cost and time-distance. Once the huge CPEC project, which has invested a huge amount of money, is completed, not only Pakistan but also the Asian region will change and develop further not only in terms of economy but also in terms of culture and politics through the OBOR CPEC project.

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