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CPEC & Digital Landscape of Pakistan

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INTRODUCTION:

China Pakistan Economic Corridor (CPEC) is not only a connectivity network of roads, railways, ports, oil and gas pipelines but it also provides cross-border fiber optic cable connectivity between China and Pakistan. The 820-kilometer-long fiber optic cable project at a cost of \$46 million stretches from China's western Xinjiang region and enters Pakistan through Khunjerab border and then travels through Gilgit-Baltistan (G-B) to Mansehra, KPK to connect to Muzaffarabad, AJK and onwards to Islamabad and Rawalpindi, where it is connected with existing optical connectivity network of Pakistan³. The cable is also connected with the first ever local Internet Exchange Point (IXP) in Islamabad to exchange and control internet traffic. The potential advantage of IXP is that different Internet Service providers (ISPs) can connect at a single point, which will provide secure interconnection point to exchange the local information within country by avoiding international network links. Moreover, it will significantly reduce internet cost with overall improved internet performance. On the other hand, Fiber optics cable will not only digitally connect Pakistan with China but also will link up with several countries of Belt and Road Initiative (BRI), spreading across landlocked Central Asian countries and Europe⁴. This digital connectivity with rest of the world through China will provide more

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³ "Cross Border Optical Fiber Cable | China-Pakistan Economic Corridor (CPEC) Official Website," accessed March 28, 2018, <http://cpec.gov.pk/project-details/40>.

⁴ Role of CPEC Fiber Optic Connectivity in Security & Reliability of Telecommunication Infrastructure of Pakistan. Khurram Shabbir in CPEC Centre of Excellence Working Paper Series

secure path for internet traffic as in the existing fiber optic network some of the internet traffic routed through India may cause a security risk for Pakistan. An alternative landing station for submarine cable is also planned to be set up at Gwadar Port, as Pakistan has only one landing station located at Karachi to handle all the country's internet traffic, any fault in this landing station will interrupt the internet throughout the country. The proposed landing under CPEC will eradicate this problem which will help to reduce dependence on existing submarine cable routes and provide more secure and reliable international communication network.

The new fiber optics cable will provide secure and fast speed internet to digitally undeveloped regions of Pakistan, where broadband connectivity has ranged from poor to nonexistent. Recently, Special Communication Organization (SCO) has upgraded the existing network and launched the 3G/4G services in Gilgit-Baltistan and Azad Jammu and Kashmir which will further strengthen broadband connectivity of the country⁵. The arrival of 3G/4G services in such remote areas would not only provide easy access to internet but it will generate employment opportunities for local youth, especially women and boost tourism as transportation in the northern areas is very difficult without broadband technology. Currently in Pakistan, subscribers of 3G/4G have reached to 44.4 million which is around 19.2 percent of the total population with an average usage of 1.56 G-B mobile data per subscriber per month⁶. With the inception of CPEC fiber cable will greatly enhance these broadband internet users and will also contribute to improve overall internet penetration of the country.

In order to optimize the existing and future coordination in supply chain within Pakistan and with the China information flows, financial flows, physical flows of goods and services would excel through digital connectivity between China and

5 China-Pakistan OFC inauguration ceremony at: <https://tribune.com.pk/story/1756458/2-optic-fibre-cable-connecting-pakistan-china-inaugurated-today/>

6 "Pakistan Set to Out-do India in Introducing 5G Internet: PTA," The Express Tribune, December 6, 2017, <https://tribune.com.pk/story/1576953/2-pakistan-set-outdo-india-introducing-5g-internet-pta/>

Pakistan. It will also promote and facilitate regional economic cooperation and will enable many ICT integration services between both countries. This connectivity spread from many soft to hard infrastructural projects such as paperless trade facilitation, e-commerce, e-government and plays a supporting role in the construction and management of industrial parks, roads, rail, aviation and ports. On the other hand, this cable connectivity will provide many opportunities to enhance people to people connectivity between China and Pakistan. The adaptation of China's Digital Terrestrial Multimedia Broadcasting (DTMB) technology is an indispensable component for socio cultural collaboration. The arrival of DTMB standard in Pakistan enables high definition (HD) broadcasting for digital television (TV) which will provide many opportunities for the Pakistani media industry for revenue generation and promote many cultural exchange programs at a higher resolution between China and Pakistan.

POLICY RECOMMENDATIONS/WAY FORWARD:

The policy recommendations to get maximum advantages of CPEC fiber optics cable are given bellow.

- **Promote Digital Entrepreneurship.** Digital entrepreneurship should be promoted amongst young talent of Pakistan to boost e-commerce. For this there is dire need to have awareness campaigns regarding ICT benefits and setting-up of platforms to train young talent of Pakistan in the field of e-commerce. These initiatives will not only help to create jobs for the local people but would also attract foreign investment in Pakistan.
- **Promote Online Education:** Higher Education Commission (HEC) of Pakistan should formulate consistent and concrete policies to expand the horizon of online education, distance learning degree programs, virtual classrooms, high speed internet access for students in universities, digital libraries to access books from anywhere anytime, e-learning short courses to

fulfill market needs and online job portal for students studying in universities and their collaboration with related companies and industries.

- **Revolutionize the payment method:** The current practice of digital banking for e-transactions should be adopted to step by step transform 95% of the e-business payments by cash on delivery with the online cash. In this regard, it is recommended to construct collaborative technical training institutions and different exchange programs with Chinese universities/companies for local youth and entrepreneurs to introduce the efficient and foolproof digital banking system in Pakistan.
- **Delivery of public services and provision of information through Internet:** It will also enable various e-government facilitates such as construction of national data centers, safe cities, trade facilitation, custom procedures and various single windows operations in government organizations for the ease of public. To get an advantage of all these services it is recommended to have different awareness and training programs for the different government organizations to encourage the efficient use of these e-government services.
- **Capacity Building:** The existing ICT facilities and infrastructure in G-B have shown that there is need to develop more computer training institutes and software houses for the local people of G-B as currently only 20 computer training institutions and only three software houses are available for the area of 72,971 square kilometers with a population of more than 180,000 people of G-B⁷. Moreover, there is a requirement of having awareness campaigns regarding ICT benefits and opportunities among G-B public. So that they will switch their businesses and business models to ICT based systems to make them more efficient and competitive.
- **Connectivity:** The fiber cable connectivity plays an important role to facilitate and boost tourism industry in G-B. It can be used to advertise G-B at

⁷ In the context of CPEC, the Current state and future expectations in G-B regarding ICT as enabler of Development. Aftab Ahmed Khan. CPEC Centre of Excellence Working Paper Series

international level and will enable many tourist services e.g. use of social websites, GPS system and with technology tourists would be able to do online bookings of hotels well ahead of time.

- **Efficient trade:** The CPEC fiber optics plays vital role for unimpeded trade through China-Pakistan border. As digital infrastructural deficit in G-B is one of the biggest hurdles for efficient cross-border trade facilitation between China and Pakistan through Khunjerab border. The inception of new fiber cable introduced the online WEBOC (web based one system) custom system at sost dry port in G-B which is the first customs dry port through which all cargo coming from Khunjerab border must get cleared by Pakistan Customs before entering the Country. It is recommended to have proper training for using this new system and address the queries of local trader before introducing new WEBOC at Sost port and further integrate this new system with Chinese custom system. As a result, this will help to reduce leakages in shipped goods and delay due to cumbersome documentation procedures of old system and overall reduce the trade facilitation problems persisted at China-Pakistan border.