

# **The Belt-and-Road Initiative and Digital Economy: A Focus on Digital Connectivity in the China-Pakistan Economic Corridor**

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## **1. Introduction**

China has been a strong player in the political, military and economic affairs of the Asia-Pacific region; the Belt-and-Road Initiative (BRI) is, then, a natural progression of China's influence. The BRI, in spirit, is meant to emulate the ancient silk route—which takes its name from the major product (silk) then traded along the route. Trade via the silk route included a huge network of strategically located trade posts and markets and it thoroughly streamlined transport, exchange, trade and distribution of goods beside silk<sup>2</sup>. The BRI, in essence, encompasses the same concept. Regional connectivity has been the mainstay of the project; key sectors of development under the BRI are energy, transport, infrastructure, education, innovation, and socio-cultural exchanges. The growth of the internet and digital sector have also become important features of the initiative<sup>3</sup>.

Connectivity has undergone a drastic change in the 21<sup>st</sup> century. It is no longer limited to traditional roads and railways; it is, rather, the virtual connectivity that facilitates the functioning of sea and land routes in real time. China has envisioned the integration of markets along the BRI, connecting countries with a network of next-generation digital infrastructure and satellite coverage.<sup>4</sup> Through the China-Pakistan Economic Corridor (CPEC), China and Pakistan plan to expand and deepen their collaboration in the areas of new and emerging technologies, such as nanotechnology, biotechnology, and information and communications technology (ICT)<sup>5</sup>. Against this backdrop, this paper looks at CPEC's digital connectivity initiatives vis-à-vis strengthening digital infrastructure, enhancing e-commerce, and developing common technology standards, coupled with their implications for Pakistan.

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<sup>2</sup> "About the Silk Road," United Nations Educational, Scientific and Cultural Organization, see <https://en.unesco.org/silkroad/about-silk-road>, accessed 18 September, 2020

<sup>3</sup> "Analysing China's Digital and Space Belt and Road Initiative," IDSA occasional paper no. 55, Ajey Lele and Kritika Roy, see <https://idsa.in/system/files/opaper/china-digital-bri-op55.pdf>, accessed 22 September, 2020

<sup>4</sup> Chan Jia Hao, "China's Digital Silk Road: A Game Changer for Asian Economies," *The Diplomat*, April 30, 2019, see <https://thediplomat.com/2019/04/chinas-digital-silk-road-a-game-changer-for-asian-economies/>, accessed 19 March 2019

<sup>5</sup> "Space Silk Road: Pakistan And China Enhance Space, Science And Technology Cooperation," *Spacewatch Asia Pacific*, see <https://spacewatch.global/2018/11/pakistan-and-china-enhance-space-science-and-technology-cooperation/>, accessed 28 April 2019.

## 2. The Digital BRI

Another initiative of the BRI is expanding digital economies where grids, smart mobility, and governance are combined with information and communication technology in the economic, social, and political contexts. China is making steady progress in this sphere and is extending the same communication technologies to Pakistan to facilitate its digital economy.

Indeed, the country is working towards becoming a “global innovation and technology hub” for next-generation connectivity<sup>6</sup>. Additionally, in 2016, China’s State Council published the 13th Five Year Plan which included a specific section on improving internet and telecommunications links across BRI countries<sup>7</sup>. In particular, the Five Year Plan pressed upon the construction of land and sea cable infrastructure; an Internet Silk Road between China and the Arab States; and the creation of a China-ASEAN information harbour. Moreover, the country has stated its ambitions of becoming the leader in 5G technology, artificial intelligence, and other new-age technologies. The Digital BRI (also known as the Digital Silk Road), then, may be seen as a stepping stone towards realising this ambition.

## 3. The China-Pakistan Economic Corridor (CPEC)

The CPEC is one of the flagship projects of BRI, envisioning multimodal development and regional connectivity. CPEC is destined to usher in a new era of opportunities in Pakistan—it aims to minimize distances and capitalize on connectivity. Besides the reduction in China’s access time, numerous sea lanes and land routes from main hubs in East Asia through the Pacific and Indian Oceans converge in a geographic loop around the culminating point of CPEC—the Gwadar port—before they get linked with BRI’s flourishing setup in Europe, such as the ‘Five Ports’ initiative and railway networks.<sup>8</sup>

CPEC in its entirety is a 3,218-kilometer-long route, consisting of highways, railways, and pipelines. The CPEC will pass through Gilgit-Baltistan in the north of Pakistan, which will connect Kashgar in China’s western province Xinjiang to rest of the world through the Chinese-

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<sup>6</sup> See <https://www.oecd.org/finance/Chinas-Belt-and-Road-Initiative-in-the-global-trade-investment-and-finance-landscape.pdf>

<sup>7</sup> See [http://www.china.org.cn/china/NPC\\_CPPCC\\_2016/2016-03/05/content\\_37945011.htm](http://www.china.org.cn/china/NPC_CPPCC_2016/2016-03/05/content_37945011.htm)

<sup>8</sup> “CPEC and the Greater Belt & Road Initiative,” Atia Ali Kazmi, Global Village Space, <https://www.globalvillagespace.com/cpec-the-greater-belt-and-road-initiative-bri/> accessed 23 September, 2020

operated Gwadar port in the Pakistan's south<sup>9</sup>. This mega project is expected to take the bilateral relationship between Pakistan and China to new heights through a transformation of the economy and assistance in bridging Pakistan's power shortfall. Moreover, the CPEC will open doors to immense economic opportunities, not only for Pakistan, but also for China through its connection with markets in Asia, Europe, and beyond. Consider for instance China's oil import: almost 80 percent of China's oil is currently transported from the Strait of Malacca to Shanghai, over a distance of approximately 16,000 kilometers and a period of two to three months; with Gwadar becoming operational, this distance will reduce to less than 5,000 kilometers.<sup>10</sup>

The CPEC project has been divided into different phases. These include the completion of the Gwadar International Airport and major developments of the Gwadar Port, as well as the expansion of the Karakoram Highway—the road connecting China with Pakistan. In terms of digital connectivity, the project will include the laying-down of a fiber-optic line to ensure better communication between the two countries. It is estimated that upon the successful implementation of all planned projects, the value of these projects will exceed all Foreign Direct Investment (FDI) in Pakistan since 1970 and will be equivalent to 17 percent of Pakistan's 2015 Gross Domestic Product (GDP). It is further estimated the CPEC project will create approximately 700,000 direct jobs during the 2015–2030 period and add up to 2.5 percentage points to the country's growth rate<sup>11</sup>.

#### **4. CPEC and Digital Connectivity**

The CPEC is hailed as a “game-changer” within Pakistan for its potential to revamp the social, economic, and political fabric of Pakistan. The CPEC will contribute not just to Pakistan's traditional economy but will greatly facilitate and improve its digital economy, through various digital connectivity initiatives within its domains. This section takes a look at these initiatives to better understand how the CPEC will help shape the future of Pakistan's digital economy.

##### **4.1 Optic Fiber Cable**

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<sup>9</sup> See <https://www2.deloitte.com/content/dam/Deloitte/pk/Documents/risk/pak-china-eco-corridor-deloittepk-noexp.pdf>

<sup>10</sup> Ibid

<sup>11</sup> Ibid

The above-mentioned cross-border fiber optic cable is a 820-kilometer-long fiber optic cable project at a cost of \$46 million, which stretches from China's western Xinjiang region, enters Pakistan through the Khunjerab border, and then travels through Gilgit-Baltistan (GB) to Mansehra, Khyber Pakhtunkhwa to connect to Muzaffarabad in Azad Jammu and Kashmir, and onwards to Islamabad and Rawalpindi, where it connects with the existing optical connectivity network of Pakistan.<sup>12</sup>

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 serve as a secure interconnection point to exchange the local information within the country by avoiding international network links<sup>13</sup>. The optic fiber cable will also lessen the cost of internet with improved performance. It will not only link Pakistan to China, but also to the several BRI countries spread across landlocked Central Asia and Europe.

This digital connectivity with rest of the world through China will provide a more 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. It will also promote and facilitate regional economic cooperation and enable various ICT integration services between both countries. The cable will facilitate regional trade, e-commerce, e-governance, and will play a role in the development of industrial roads, railways, aviation, and ports.

The cable will, moreover, also have vast benefits for GB, as the digital infrastructure deficit in GB is one of the main hurdles in the efficient cross-border trade facilitation between China and Pakistan across the Khunjerab border<sup>14</sup>. The inception of the new fiber cable allowed for the introduction of the online Web Based One Custom System (WEBOC) at the dry port in GB 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. The cable will not only facilitate trade in GB, but also impact education, as the education system will be improved with better online learning, internet facility, and research work. Students will be able to get easy

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<sup>12</sup> "Cross Border Optical Fiber Cable | China-Pakistan Economic Corridor (CPEC) Official Website," accessed September 20, 2020, <http://cpec.gov.pk/project-details/40>

<sup>13</sup> "Role of CPEC Fiber Optic Connectivity in Security & Reliability of Telecommunication Infrastructure of Pakistan," Khurram Shabbir in CPEC Centre of Excellence Working Paper Series

<sup>14</sup> "CPEC, digital connectivity and Pakistan-China ties," Mehvish Mahmud, Global Village Space, July 19, 2020.

access to the Pakistan Higher Education Commission (HEC) digital library and resources, thus giving back to the economy in the form of innovation and increased output.

#### 4.2 Submarine Cable

Pakistan currently has only one landing station for the respective submarine cable located at Karachi to handle the entirety of the country's internet traffic; any fault in this landing station will interrupt the provision of internet throughout the country. An alternative landing station is planned to be set up at Gwadar Port<sup>15</sup> which will help to eradicate and mitigate this problem. This will help to reduce dependence on existing submarine cable routes and provide a more secure and reliable international communication network. By 2020, 6,299 kilometers of underwater cables will extend from Gwadar to Djibouti and across the Digital Silk Route between Asia and Africa.

#### 4.3 Satellites

Space is another dimension which is gaining a lot of attention. China has already launched satellites for Pakistan, including a remote sensing satellite launched recently in 2018. Now, there is a proposal to cooperate for a manned space flight with the aim of sending a Pakistani astronaut into orbit by 2022. Their cooperation also extends to space security efforts in multilateral forums.<sup>16</sup>

At the same time, a space-based Silk Road will provide satellite navigation support to all BRI countries. The first BeiDou base station of the Space Silk Road is already operational in Pakistan since 2017. BeiDou is making rapid progress with 30 BRI countries already linked up<sup>17</sup>. When completed, the ambitious global initiative will use an exclusive satellite navigation system. Altogether BeiDou, fiber networks, 5G, and submarine cables will create a multi-dimensional digital mega-project across land, sea and space.

By connecting industries and infrastructure projects along the BRI, China's satellite navigation and communication system hopes to dominate the new digital infrastructure in the BRI space. Google, Amazon, and SpaceX, for instance, are all developing projects to provide broadband services around the globe. As (such) new ideas for space-based internet services emerge, China

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<sup>15</sup> "CPEC & Digital Landscape of Pakistan," CPEC policy paper series, Policy paper #08, Talha Mustafa

<sup>16</sup> (n 2)

<sup>17</sup> (n 12)

will already be well ahead of the curve. On 16 July 2018, China announced its plans to launch 320 low-orbit satellites (the Hongyan constellation) to provide worldwide communication services. This will comprise a global two-way, real-time data transmission system along with other multimedia data services. It is expected to provide energy and engineering companies with services, including the management of global assets, personnel positioning, and emergency rescue and communication services.<sup>18</sup> Eventually, this satellite communication network will take the place of the ground-based network, and will allow for a universal connection for cellular devices. The same is planned to be extended to Pakistan.

#### 4.4 5G Deployment

Huawei, a leading Chinese multinational technology company, is also pushing for 5G deployment in Pakistan where it already has a strong established presence in the market. Pakistan Telecommunication Authority (PTA) has set up its 5G Working Group with members from telecommunication operators, vendors, manufacturers, academia, R&D organizations, regulators, relevant ministries and the Frequency Allocation Board (FAB)<sup>19</sup>. Over 65 million Pakistanis now subscribe to 3G and 4G services launched 5 years ago. The subsequent 5G-uptake in Pakistan is also expected to be swift.

### 5. **Digital Connectivity and its Facilitation of E-commerce in Pakistan**

The digital connectivity along, and as a consequence of, the CPEC will positively contribute to the development of the economy by optimizing existing and future coordination in the supply chain for e-commerce within Pakistan. It will help the flow of information, financial transactions, and physical goods and services. It will also promote and facilitate regional economic cooperation and will enable many ICT integration services between both countries. This connectivity will spread not only from many soft projects but also to hard infrastructural projects such as paperless trade facilitation, e-commerce, e-government, as well as playing a supporting role in the construction and management of industrial parks, roads, rail, aviation and ports.

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<sup>18</sup> Ibid

<sup>19</sup> See <https://www.pta.gov.pk/en/media-center/single-media/workshop-on-technology-evolution--roadmap-to-5g->

Concurrently, this digital 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 the 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.<sup>20</sup>

Such digital initiatives will also increase opportunities for startups and Small and Medium Enterprises (SMEs), especially through the new policy of digitization and e-commerce. According to a report about Pakistan's e-commerce policy framework, released by the Ministry of Commerce in September 2019, there are over 3.2 million SME units in Pakistan, accounting for 98 percent of all the enterprises, employing "nearly 78 percent of the non-agriculture labor force in Pakistan and [contributing] more than 30 percent" to Pakistan's GDP<sup>21</sup>. E-commerce serves as an opportunity to bring SMEs into the mainstream and connect them with international markets through the Digital Silk Road as well as Chinese-Pakistani online market places such as Alibaba and Daraz.

The CPEC is providing a great opportunity to Pakistan to learn and collaborate with Chinese technology giants like Tencent and Alibaba to unleash its e-commerce potential. Companies like Alibaba, Uber and Careem have conducted business-to-consumer (B2C) services in the country, and the business can be further expanded within the business-to-business (B2B) framework as well.

According to a report released by the website *Export.gov* which is managed by the U.S. Department of Commerce, it is estimated that Pakistan has around 32 million Facebook users and one of the highest rates of smartphone penetration in South Asia at nearly 34 percent. This makes it a potential market for e-commerce services and businesses.<sup>22</sup> These digital BRI initiatives, thus, have great scope in Pakistan.

The majority of Pakistan's economy is informal as the better part of transactions are conducted in cash. The majority of the local companies especially the SMEs are undocumented and therefore out of the tax net. E-commerce and digital initiatives would ensure transparency in

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<sup>20</sup> (n 12)

<sup>21</sup> "Pakistan eyes E-commerce for economic growth," Xinhuanet, 15 January 2020.

<sup>22</sup> Ibid

transaction along with bringing the documentation of the undocumented transfer of money. The McKinsey Global Institute report estimated that Pakistan can have an increase of a cumulative seven percentage points in its GDP along with the generation of around four million new jobs during 2016–2025 through utilizing such digital services alone<sup>23</sup>.

## **6. Legal Framework Monitoring the Digital Economy**

Pakistan has relatively liberalized its trade and investment regimes, The Pakistan Board of Investment (BOI) issued a comprehensive Foreign Investment Policy (FIP) in 2013. Under the provisions of the FIP, a vast range of sectors and activities is open to foreign investors, except areas that are restricted due to reasons of public safety and national security.<sup>24</sup>

The Pakistan Board of Investment promulgates that foreign investments are protected under the Foreign Private Investment (Promotion & Protection) Act of 1976 and the Protection of Economic Reforms Act of 1992<sup>25</sup>.

Pakistan recently also produced a draft national e-commerce policy in 2019. This policy provides a glimpse of the current status of Pakistan's e-Commerce with primary focus on: (i) regulatory and facilitation framework; (ii) financial inclusion and digitization through payment infrastructure development; (iii) empowerment of the youth and SMEs through e-commerce; (iv) taxation issues; (v) consumer protection in the digital environment; (vi) ICT sector and telecom services in Pakistan; (vii) logistics; (viii) data protection and investment; and (ix) global connectivity and multilateral negotiations. Key stakeholders identified in this policy framework are e-Commerce business enterprises including the innovative digital industries, freelance service providers, financial institutions, revenue authorities and regulatory bodies, entities concerned with local/cross-border logistics, various associations of SMEs, and the final consumer.

With economic activity increasing in Pakistan, arbitration is being promoted for the resolution of commercial disputes. Arbitration in Pakistan is conducted in accordance with the provisions of the Arbitration Act 1940 (adopted by the British Parliament in 1940). The High Courts of

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<sup>23</sup> Ibid

<sup>24</sup> See Pakistan Investment Policy 2013, The policy can be found on the Pakistan Board of Investment (BOI) website, <http://boi.gov.pk/Home.aspx> (Last Visited 29 January 2018 )

<sup>25</sup> Ibid



the relevant province in Pakistan may lay down rules in accordance with the 1940 Arbitration Act and the provisions of the Act are to be followed at both the federal and the provincial levels in Pakistan. The new law on Special Economic Zones (SEZs), which will have a direct impact on the implementation of the CPEC, also provides for arbitration as an alternative dispute resolution mechanism. In the case of an absence of a recognized institute to administer the settlement of dispute and the arbitration, the domestic commercial arbitration will remain an appropriate alternative to resolving legal disputes.

## **7. Conclusion**

The future of commerce and trade, unequivocally, involves a transition into the digital space. During, and in the aftermath of the COVID-19 pandemic, the world has realized the significance of the digital space and the benefits that may be reaped through its proper integration and regulation. The BRI, through the Digital Silk Road, serves as the ideal platform for the proliferation of a regional digital economy that finds its roots in the transformation of the economy of each country part of the BRI and their interconnectivity through digital and physical trade, investments, and the sharing of knowledge, digital infrastructure, and such resources. Through the legal cover and guarantee of protection against cybercrime and the implementation of adequate compliance and dispute resolution mechanisms, the BRI is uniquely situated to boost the region into the new digital era, serving, also, to assist countries in the recovery of their economy in light of the impact of the current pandemic.