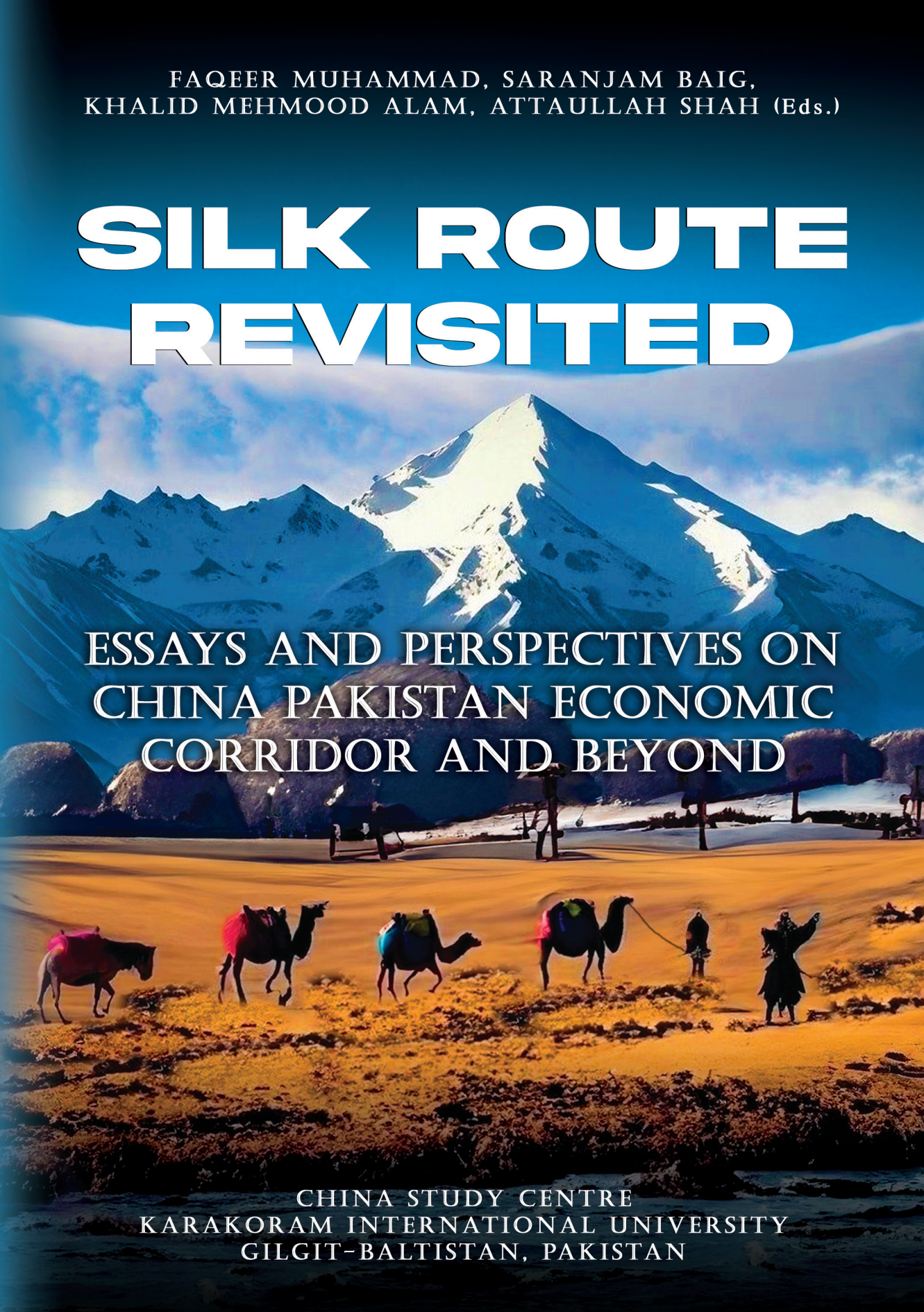
FAQEER MUHAMMAD, SARANJAM BAIG,
KHALID MEHMOOD ALAM, ATTAULLAH SHAH (Eds.)

SILK ROUTE REVISITED

ESSAYS AND PERSPECTIVES ON CHINA PAKISTAN ECONOMIC CORRIDOR AND BEYOND



CHINA STUDY CENTRE
KARAKORAM INTERNATIONAL UNIVERSITY
GILGIT-BALTISTAN, PAKISTAN

Published in Pakistan by

China Study Centre

Karakoram International University

University Road, Gilgit

Gilgit-Baltistan, Pakistan

Suggested Citation: Muhammad, F., Baig, S., Alam. K.M., Shah, A. (2023). Silk Route Revisited: Essays and Perspectives on the China-Pakistan Economic Corridor and Beyond. *China Study Centre, Karakoram International University, Gilgit-Baltistan*, Pakistan, 2023.

ISBN 978-969-23900-0-2 (eBook)

ISBN 978-969-23900-1-9

Printed in Pakistan

First Edition: 2023

Cover & Layout design by: Karim Muhammad

Silk Route Revisited:

Essays and Perspectives on the China-Pakistan Economic Corridor and Beyond

China Study Centre

Karakoram International University

Gilgit-Baltistan, Pakistan

Silk Route Revisited:

Essays and Perspectives on the China-Pakistan Economic Corridor and Beyond

Edited by:

Faqeer Muhammad

Saranjam Baig

Khalid Mehmood Alam

Attaullah Shah

Contents

Acknowledgments..... i

Foreword..... ii

Foreword..... iii

Preface.....v

China-Pakistan Economic Corridor: An Alternative Trade Route.....1

Pakistani Stakeholder's Vision of Tourism Development under China-Pakistan Economic Corridor Initiative.....19

Poverty Alleviation & CPEC: As the Nexus of Transformative Blue Economy 34

Silk Route and Pak China Relations- Beyond CPEC 62

Understanding Mountain Communities Knowledge and Their Support for China-Pakistan Economic Corridor: The Mediating Role of Perceived Tourism Development.....73

The CPEC Projects and the Entrepreneurial Opportunities in Pakistan 84

Urbanization And Energy Security in Pakistan: Lessons from Chinese Experiences.....98

Sino-Pakistan Cultural Relations: Challenges and Policy Directions.....110

Geo-Politico Economic Significance of Gilgit Baltistan: From Antiquity to CPEC.....125

China-Pakistan Economic Corridor (CPEC): Economic and Strategic Implications for Pakistan 143

The Motivation of Pakistani Students Studying Chinese Language in China ..157

Exploring the China-Pakistan Educational, Cultural, and Bilateral Cooperation 177

China-Pakistan Economic Corridor (CPEC) and the World: A Perspective.....191

Development of Morel Mushroom Technology in Gilgit-Baltistan: Chinese Experiences in Perspective, A Viable Option for Income Generation 199

Geological Hazards along the CPEC Route from Gilgit to Khunjerab 212

About the Editors.....228

About the Contributors 230

Acknowledgments

This work would not be possible without the support from many institutions who helped us make this project possible.

First, we would like to convey our gratitude to Higher Education Commission (HEC) for financial and administrative support. We want to express our deep gratitude to Dr. Mukhtar Ahmed Chairman HEC and Dr. Safdar Ali Shah Director General of CPEC HEC Pakistan for their encouragement and guidance in completing this book.

We are particularly grateful to Engr. Prof. Dr. Ata Ullah Shah, Vice Chancellor, Karakoram International University who interacted with us rigorously throughout the whole editorial process and gave us input for improvements.

Moreover, we would like to extend our special thanks to Dr. Tasawar Baig, Associate Dean, Faculty of Social Sciences and Dr. Sajjad Haider, Director International Office at Karakoram International University who were instrumental in the initiation and transition of China Study Centre at Karakoram International University. Without their support and commitment, we would not have enough financial resources to initiate this project.

There are too many to count however some of them we would like to mention---- Mr. Ajaz Ul Haq, Lecturer and Mr. Abdul Karim, Librarian at China Study Centre, Karakoram International University; Mr. Abdullah Rahimi, Graphic Designer at Karakoram International University; Essa Wali, Web Developer at Karakoram International University, and all our colleagues at the Department of Economics, Karakoram International University.

We would like to thank the contributors and reviewers for their rigorous and painstaking contribution to the book.

Last but not least, we are grateful for our family and friends for their patience, emotional support and encouragement.

Foreword

It's my pleasure to contribute this Foreword to this important new book, which is a timely initiative given that CPEC has successfully completed 10 years since its launching in 2013. The Karakoram International University, Gilgit Baltistan is an important link in this educational relationship between Pakistan & China as the CPEC is a natural corridor of development and progress from Gwadar to Gilgit. CPEC has given new hope to the Pakistani people and CPEC is a manifestation of China's vote of confidence in the future progress and prosperity of Pakistan, coming as it did at a time when no country was willing to come forward to invest in Pakistan while China came forward, befitting its role as Pakistan's all-weather strategic partner and 'Iron Brother'. The benefits of CPEC are evident: over 200,000 Pakistanis gainfully employed, 40,000 Pakistani students studying in China, $ 26 billion in Chinese investment so far, 6500 megawatts of electricity added to Pakistan to alleviate our chronic energy shortages, 600 kilometers of roads and motorways, Gwadar Port emerging as the principal point of commercial connectivity with Afghanistan and Central Asian Republics, Coal finally mined & generating electricity from Thar going into the national grid leading to Women's empowerment in one of Pakistan's most backward regions, infrastructure uniting the Federation of Pakistan and skill training and capacity building of young Pakistanis.

However, the best of CPEC is yet to come, via Special Economic Zones, Agriculture, IT, and relocation of Chinese industry. Pakistan must also deliver on its two core commitments made to China: 'one window operation' for Chinese investors by slashing the bureaucratic red tape and 'fool proof security' for Chinese personnel and projects in Pakistan. In the changing global scenario, with the shift in balance of power from the West to the East, in the 'Asian Century', China's peaceful rise is a huge plus for Pakistan and other developing countries, as we are partners in the quest for a better tomorrow. Pakistan-China relations are even more relevant today as these are neither transactional nor tactical, this is a strategic bond based on mutuality of shared interests and common values and worldview. This book is, therefore, an excellent contribution to better understanding Pakistan-China relations so that in the second phase of CPEC, it is taken to new heights, Inshallah.

Syed Mushahid Hussain,
Chairman, Pakistan-China Institute

Foreword

The latest publication of China Study Centre, Karakoram International University, titled "Silk Route Revisited: Essays and Perspectives on China Pakistan Economic Corridor (CPEC) and Beyond," edited by Faqeer Muhammad, Saranjam Baig, Khalid Mehmood Alam and Attaullah Shah, is a multifaceted appraisal of CPEC in the context of the age-old trade and cultural links between the two neighborly regions of China and ancient Pakistan (Gandhara)—that flourished through the historical Silk Route. Seen in this perspective, the Belt and Road Initiative (BRI) emerges as a 21st Century manifestation of the Silk Road which played an important role in shaping the world that we live in, especially Eurasia. It established global interconnectedness that transcended geographical boundaries and dominated the world trade and cultural exchanges for almost 1600 years (130 BCE to 1453 CE). The land routes were supplemented by Maritime (Silk Road) trade routes and together they formed "one of the most transformative superhighways in human history," which, inter alia, became a channel for transmission of new ideas and trade goods, along with other trans-Eurasian cultural and commercial exchanges. Over the centuries, the Silk Roads connected peoples and cultures, later fondly remembered, and symbolized as "Connecting Cultures, Creating Trust." Although the trans-Eurasian trade became active during the 2nd Century BCE, the term Silk Roads / Routes (Seidenstrassen) was coined by a German geographer, Baron Ferdinand von Richthofen in 1877. It is used both singular and plural and as Road(s) / Route(s).

Ancient Pakistan (Gandhara) straddled some of these silk routes which connected it with China, South Asia, Central Asia, Persia, Greece, and Rome—and the long-distance east-west traffic. The Home page of the UNESCO Silk Roads Project explains the Silk Roads as under:

> The term 'Silk Roads' refers to a vast network of land and maritime trade and communication routes connecting the Far East, Central Asia, the Indian sub-continent, Iranian and Anatolian plateaus, the Caucasus, the Arabian Peninsula and the Mediterranean region and Europe. The incessant movement of peoples and goods along these routes resulted in an unprecedented transmission and exchange of knowledge, ideas, beliefs, customs, and traditions over three millennia.

Ancient Pakistan was home to vibrant cultures and civilizations. The Indus Valley Civilization had linkages with Mesopotamia and Egypt, besides surprising similarities with newly discovered bronze-age urban culture of Erlitou in China (1900 to 1500 BCE). Gandhara Buddhist Civilization burst its boundaries and spread across the formidable Karakorum's to China and Central Asia during the 1st Century of the new millennium—when spirited Buddhist monks found favorable avenues along the Silk Routes. The first Buddhist Chinese temple (known as the White Horse Temple) was established at Luoyang in 68 CE. Another favorable factor was the Kushan Empire, especially the reign of Kanishka the Great

(127 -150 CE) who not only patronized Buddhism but extended his sphere of influence to the city-states of Kashgar, Yarkand, Kucha, Nia and Khotan. This helped Gandharan migrants get settled there to spread Buddhism by translating Buddhist scriptures into Chinese. Some famous monks of Gandharan origin, like Kumarajiva, the translator of Lotus Sutra, made a mark in these kingdoms on the Silk Road. Moreover, the Kushans were the Great Yuezhi tribe which had moved from the western regions of China and established their empire in Afghanistan and Gandhara. They established good relations with the Han Dynasty in China. The discovery of Kharoshthi (Gandharan script) documents from the archaeological sites along the Silk Road—especially Nia, Kucha and Khotan--show the extent of Gandharan ingress into these areas. There are documents and coins with Chinese imprints on one side and Kharoshthi on the other.

The role of Silk Road in promoting cultural ties between Gandhara (ancient Pakistan), which had emerged as a vibrant center of Buddhism towards the dawn of the first millennium CE, can be determined from that fact that there are more than 50,000 petroglyphs (rock-carvings) in the northern areas of Pakistan which shows constant movement of traders, pilgrims, migrants, and adventurers on the trails across the Pamirs. These carvings are dominated by Buddhist motifs and images, besides inscriptions in many languages, including Chinese. Therefore, the Silk Road laid strong foundations of Pakistan-China relations and Buddhism played a significant role in these exchanges.

Majority of the essays in the book deal with various aspects of China-Pakistan relations and linkages, from educational and cultural ties, opportunities for trade and tourism to poverty alleviation. Terms like One Belt, One Road, Belt and Road Initiative, Silk Road Economic Belt and Maritime Silk Road clearly manifest the age-old romance with the Silk Road which once brought prosperity to this region and connected it to distant destinations. Pakistan's historical association with the old and new Silk Road remains the focus of the book encompassing CPEC and its potential to transform Pakistan. It is a valuable addition to the growing literature on China-Pakistan Economic Corridor.

Dr. Safdar Ali Shah
Director General CPEC,
Higher Education Commission (HEC)
Pakistan

Preface

Special Economic Corridors facilitate and promote economic growth between countries and regions. These corridors enhance regional connectivity and reduce communication and transportation costs and time. China's establishment of the Belt and Road Initiative (BRI), comprising six economic corridors, manifests its desire to create an interconnected global economy. As such, the BRI aims to enhance connectivity and promote economic cooperation between China and countries in Asia, Europe, Africa, and beyond.

Among the six economic corridors, as the pilot and flagship project of the BRI, the China-Pakistan Economic Corridor (CPEC) carries significant importance for China, Pakistan, and the neighboring countries. CPEC involves a series of infrastructure projects, including constructing roads, railways, pipelines, power plants, and other energy and transportation-related developments. The corridor spans from Gwadar Port in Pakistan's Baluchistan province to Khunjerab Pass in northern Pakistan to China's western region of Xinjiang.

After almost ten years of its initiation, academics and policymakers are still critically investigating CPEC and its implications. Despite the burgeoning literature on the topic, many important questions have yet to be answered. As a part of the ongoing academic scrutiny, this book project invited chapters from senior and budding academics and researchers. The multidisciplinary contributions ranging from economy to politics to culture to disaster management to agriculture have critically and scientifically analyzed various aspects of CPEC and its challenges and opportunities.

In this book, we have selected fifteen chapters keeping a balance between different academic fields. The first chapter analyzes the effects of CPEC on trade in terms of transport cost and travel time and compares the existing routes with the new CPEC route. This chapter has some significant findings, suggesting that the transport cost for a 40-foot container between Kashgar and destination ports in the Middle East decreased by about $1450. For destination ports in Europe, it fell by $1350. It further suggests that the travel time is reduced by 21 to 24 days for destination ports in the Middle East and 21 days for European destinations.

The second chapter explores the understanding of the Pakistani stakeholders' perception of how CPEC may impact various dimensions of tourism, their level of preparedness to benefit from CPEC's tourism potential, and the policy directions they suggest for planning and negotiating tourism investments with China. The study involved in-depth semi-structured interviews with 22 individuals and groups representing. Their results indicate that the current policy and practices in tourism are primarily influenced by state actors, leaving limited space for non-state entities such as NGOs, local actors, and communities to participate. The chapter suggests that if people-centric development is the goal of any development project, including the CPEC, special measures are needed to promote

meaningful participation of local stakeholders. The study's findings have valuable policy implications for socially acceptable tourism development. They may help policymakers, investors, developers, NGOs, and other stakeholders foster practical ways of mainstreaming them in local tourism development.

The next chapter highlights the importance of the blue economy in the context of CPEC. Blue economy refers to the sustainable use of ocean resources for economic growth, improved livelihoods, and job creation while preserving the health of ocean ecosystems. It focuses on harnessing marine space for development, energy, biodiversity protection, climate change adaptation, and food security. The chapter suggests that Pakistan's unexplored maritime zone can become a vital asset, especially in CPEC and the Gwadar Port. It has the potential to utilize the country's blue economy for long-term development with the hope of reducing poverty. Furthermore, the chapter recommends that Pakistan should focus on policies that target long-term and inclusive economic development where CPEC can be the tool to benefit the country through establishing local and regional economic zones that support travel and tourism, providing more opportunities for employment for local communities, guaranteeing poverty reduction and social well-being of residents.

CPEC in perspective, Chapter 4 examines Pakistan and China relations. The chapter sheds light on the friendly relations with China that have been the cornerstone of Pakistan's foreign policy. The historical relations between China and Pakistan and their evolution in the post-CPEC era remain the major focus of the chapter. It emphasizes the importance of the partnership between the two countries, which has been further strengthened with the initiation of the flagship project, China Pakistan Economic Corridor (CPEC), under the Belt and Road Initiative (BRI) of President Xi Jinping. The chapter argues that Pak-China relations are faced with many obstacles at regional and global levels.

Chapter 5 of the book explores the relationship between residents' knowledge of the China-Pakistan Economic Corridor (CPEC) and their perception of tourism development in the Gilgit-Baltistan region. The research investigates the influence of attitudes toward CPEC, CPEC knowledge, and CPEC and Tourism Development on CPEC support from individual residents living in areas along the planned CPEC route. The findings indicate that understanding of CPEC and its potential impact on tourism development leads to a more positive attitude towards CPEC and increased support for the project. However, having a positive attitude does not always equate to support, as other factors, such as economic benefits, also play a role. The study reveals that tourism development mediates CPEC knowledge and CPEC support, emphasizing the importance of promoting tourism initiatives in shaping attitudes towards CPEC. Based on the results, the chapter proposes several policy recommendations to enhance public support for CPEC, including disseminating more information about CPEC's impact on tourism development, promoting the potential benefits of CPEC, prioritizing tourism development initiatives, investing in educational programs, and addressing con-

cerns related to the project.

As the China-Pakistan Economic Corridor (CPEC) is an important initiative that has the potential to stimulate economic growth in Pakistan and create opportunities for new businesses to start up. Chapter 6 investigates how the CPEC would change the landscape of entrepreneurial activity in the nation. CPEC intends to raise living standards, help reduce poverty, and close the development gap between Pakistan's urban and rural areas. The research highlights the relevance of CPEC for the socio-economic growth of Pakistan as well as its ramifications for the countries adjacent to Pakistan. It examines Pakistan's challenges in terms of entrepreneurship, such as the lack of infrastructure, insecurity, limited educational opportunities, and high unemployment rates. However, the completion of CPEC projects paves the way for new opportunities for business expansion in various sectors, including those dealing with processing dried fruits, hotels, restaurants, tourism, construction, retail, transportation, salt refining, education, and seafood handling. This chapter looks at the business opportunities presented by the various aspects of CPEC. It explores how improvements in infrastructure, particularly transportation networks, make markets accessible to small businesses and improve their connectivity to one another.

The next chapter emphasizes the significance of Pakistan's rising urbanization and energy security. Energy security refers to the availability of energy to meet demand. When demand exceeds supply, this signals energy insecurity. Electricity consumption and the generation gap are energy security proxies in this case. Rapid urbanization and economic growth are significant drivers of energy insecurity in developing countries. Unplanned urbanization may jeopardize the country's energy security. Pakistan's energy infrastructure is in transition and needs to be effectively managed. Pakistan is experiencing an energy crisis because of inadequate infrastructure and poor management. In the last two decades, growth-led energy demand has been increasing, but progress has yet to be made in overcoming the growth-led energy issue. Pakistan can create electricity from solar energy of approximately 100,000 MW. China has made incredible strides in renewable energy, and electricity generation from renewable energy resources is rapidly rising. These green growth energy sources could significantly contribute to China's economic growth. Pakistan requires foreign investment, and China may be interested.

As business relationships and people-to-people contacts between China and Pakistan steadily increased with the launch of the China-Pakistan Economic Corridor, one arena that has yet to be given substantial attention in the academic discourse is the cross-cultural challenges and associated issues between the two disparate cultures. Chapter 8 examines the two cultures from a theoretical and empirical standpoint. The study aims to compare the two cultures, highlighting their differences, challenges, and similarities. It argues that the success and smooth functioning of the relationships between the two nations depend not only on the political clichés and bilateral cooperation in economic, industrial, and diplomatic spheres

but also on understanding the cultural differences and similarities between the two countries. It is argued that recognizing cultural differences is the first step in reducing the difficulties of dealing with these two disparate cultures. The study further contends that despite some noticeable differences and unique aspects in the cultures of China and Pakistan, there are also commonalities that can be well utilized to cultivate mutual acceptance and bring the two nations closer to each other.

The Gilgit-Baltistan region of Pakistan has remained at the crossroads of great power politics for centuries. Geopolitical developments at the turn of the twenty-first century and the global shift in power dynamics in the context of the Asian Century have revitalized the geostrategic significance of the historical and contemporary perspective. The Chinese BRI and CPEC envision regional integration as a significant regional role. Gilgit-Baltistan., a geographical pivot in the High Asian region, has re-emerged as a lynchpin for regional and extra-regional integration. The region is situated at the junction of Central Asia, South Asia, and Southeast Asia through the ancient Chinese Silk Route. It can play a significant role in attaining the goals. Besides being an intersection since ancient times, Gilgit-Baltistan has been strategically instrumental as a transit route, connecting adjoining and bordering states of Afghanistan, China, and India. Against this backdrop, Chapter 9 of the book analyzes the geopolitical and economic significance of Gilgit-Baltistan and its geostrategic placement amidst the region's ongoing geopolitical and geo-economic development. Notwithstanding its controversial political status, the importance of Gilgit Baltistan demands considerable analysis, more importantly, because it is located at the intersection of regional crossroads among Asia's three emerging regional economies. This research argues that with all its potential, Gilgit-Baltistan. is a vital arena for consolidating regional integration that can dampen the growing animosity amongst the competing regional powers.

As noted at the onset, CPEC could enhance energy infrastructure, industrial growth, and transportation infrastructure and drastically alter Pakistan's economic situation. Chapter 10 outlines the economic implications, mostly the positives of CPEC in Pakistan. The chapter highlights the importance of the deep-sea Gwadar Port-- Pakistan's critical maritime connection to the world economy, attracting foreign capital and promoting trade. The industrial zones built along the CPEC route are anticipated to draw global business and support domestic businesses, generating employment opportunities and boosting Pakistan's manufacturing capacity. It is further suggested that the country's total economic growth can be improved through more foreign direct investment and technology transfer, encouraging innovation and boosting productivity. The project seeks to increase bilateral trade between China and Pakistan by removing trade barriers and enhancing logistics. As the project is significant for the economic potential it provides for Pakistan, the chapter suggests that without planning, good governance, and resolving conflicts, getting the maximum out of CPEC would not be easy.

By enacting reasonable legislation, establishing an atmosphere welcoming to investors, and encouraging inclusive growth, Pakistan can fully benefit from the economic advantages of this game-changing initiative.

Since China's reform and opening up, its economic strength has continuously improved, and its global importance has grown. Consequently, there has been a surge in interest in learning the Chinese language worldwide. In foreign countries, numerous Chinese language training institutions have been established. Confucius Institutes have been set up in colleges and universities to promote cultural exchange and help students understand and learn about Chinese culture. Within China, an increasing number of international students can be observed studying in higher education institutions, contributing to the rising popularity of learning Chinese. Chapter 11 explores the impact of Chinese learning motivation on international students' Chinese proficiency. The authors of the chapter surveyed Pakistani students studying Chinese in China. It delves into the influence of Chinese learning motivation on their language acquisition, aiming to shed light on Chinese global significance. The suggestions encompass overcoming psychological barriers during the learning process, mastering Chinese learning methods, making Chinese friends, and integrating into Chinese social life. Moreover, Chinese teachers are advised to organize engaging classes, understand the psychology of learning, and actively participate in teacher training courses. Textbook compilation and selection should adhere to language cognitive laws, align with government guidelines, and maintain simplicity. The chapter also discusses factors influencing Pakistani international students' motivation to study Chinese in other countries.

The China-Pakistan relationship has evolved into a multifaceted partnership encompassing various sectors, including education, culture, and bilateral cooperation. Chapter 12 highlights the critical aspects of the educational, cultural, and bilateral collaboration between China and Pakistan and their significance. The authors argue that the academic cooperation between China and Pakistan has witnessed remarkable growth in recent years. China actively supports Pakistan's educational development through scholarships, exchange programs, and the establishment of educational institutions. This collaboration enhances academic opportunities for Pakistani students and facilitates the transfer of knowledge, expertise, and technological advancements between the two countries. Cultural exchange is integral to the China-Pakistan relationship, fostering mutual understanding and appreciation. Both nations actively promote cultural exchanges, including art exhibitions, film festivals, and cultural performances. These initiatives deepen cultural ties, promote people-to-people connectivity, and foster a sense of shared heritage. The authors have concluded that the China-Pakistan educational, cultural, and bilateral cooperation demonstrates the depth and breadth of their relationship. They have forged a robust partnership encompassing various sectors by promoting knowledge exchange, cultural understanding, and economic collaboration. This collaboration is poised to continue fostering mutual benefits,

enhancing regional connectivity, and strengthening the bilateral relationship between the two nations.

Chapter 13 examines the global perspectives on the CPEC. The authors have tried to explore how different countries in Asia, Europe, and Africa can benefit from CPEC. They suggest CPEC be a positive-sum game for all the countries willing to become a party in it.

Considering the multidisciplinary nature of the book, we have included an important chapter on food and agriculture. The chapter draws lessons from Chinese successes in the cultivation of 'Morels.' Morels are high-prized wild edible commodities of immense nutritional, health, and economic significance. They have been a focus of scientific research for years around the globe, and their cultivation has been successful in China recently. The chapters emphasize the cultivation of Morels as it is a scarce seasonal variety of mushrooms mainly found in Gilgit-Baltistan, Swat, and Kashmir of Pakistan and Kashmir. Its economic and medicinal values make it a viable option for sustainable food security and income generation. Providing food and nutritional security for Gilgit-Baltistan's expanding population is challenging. With less than one Kanal of farmed land per person, the population is entirely dependent on wheat provided by the government at subsidized rates. Fruits and vegetables are the only sources of revenue, but unfortunately, pre-and post-harvest losses of fruits and vegetables range between 50 and 70 percent. In this situation, cultivating mushrooms becomes a favorable option that can be grown even by landless people. Developing indigenous production technology and producing skilled human resources using Chinese expertise in mushroom technology is essential.

The final chapter highlights the possibility of climate uncertainties and natural hazards along the CPEC route. The Karakoram region of Gilgit-Baltistan, in northern Pakistan, is home to some of the highest mountain peaks in the world. The Karakoram Highway bisects these rugged mountain terrains to make its way from Pakistan to China. This region is one of the highest relief regions in the world, where the difference between the highest and lowest contour sometimes reaches more than 5000 meters. The chapter suggests that many natural processes, like erosion and mass wasting, are at their peak due to high slope inclination and extreme weather conditions. Furthermore, the natural hazards, from landslides to rock falls, debris flow to glacial lake outburst flooding (GLOF), and riverain flooding to cloudburst phenomena, are pervasive. As a way forward, the authors highlight the importance of carrying out Hazard, Vulnerability, Capacity, and Risk Assessment (HVCRA) to cope with these natural hazards. Planning, mapping, mitigations, and using new scientific approaches are essential and can at least minimize the effects of these mountain hazards.

In a nutshell, the contributors to this book have rigorously explored the implications of the CPEC. The chapters contribute to the existing discourse on CPEC and provide an enriching and enlightening analysis. It offers a multifaceted discourse

on the new regional geopolitics and the evolving global economic order.

Faqeer Muhammad
Saranjam Baig
Khalid Mehmmod Alam
Attaullah Shah

Gilgit
July 10, 2023

1

China-Pakistan Economic Corridor: An Alternative Trade Route

Khalid Mehmood Alam
https://orcid.org/0000-0003-3222-0895
China Study Centre, Karakoram International University, Gilgit-Baltistan, Pakistan

Saranjam Baig
https://orcid.org/0000-0003-2407-3776
College of Economics and Political Science, Sultan Qaboos University, Oman
Department of Economics, Karakoram International University, GB, Pakistan

Faqeer Muhammad
https://orcid.org/0000-0003-3261-3066
China Study Centre, Karakoram International University, Gilgit-Baltistan, Pakistan

Introduction

The China-Pakistan Economic Corridor (CPEC) was launched in 2013 by the Chinese government to increase the efficiency of international trade and decrease the impact of traditional transport blockades. The CPEC aims to improve the interconnectivity of China's global logistics network by building and upgrading various road and rail infrastructure. CPEC will also create a potential link between China and other countries to lessen reliance on the Strait of Malacca.

Due to the under-developed road and rail connectivity with neighboring countries, China heavily relies on sea transport for its foreign trade. However, the sea route from China to other countries is long. Moreover, it involves passing through the Strait of Malacca, which has a reputation for being a traffic bottleneck and is susceptible to political instability and conflicts. This reliance on the Malacca Strait has given rise to the so-called Malacca Dilemma, which refers to China's concern about the reliability of this sea route and the potential risks it poses to its trade and security. Moreover, maritime transport has criticisms, including poor mode consistency, slow delivery times, and unfavorable delivery schedules. These issues can cause delays and disruptions in the supply chain, affecting the overall efficiency of trade and logistics operations.

China has been investing in various infrastructure projects to address these challenges, including the Belt and Road Initiative, to enhance its connectivity with neighboring countries and reduce its dependence on the Malacca Strait. Additionally, China has been exploring alternative sea routes, such as the Northern and Arctic Sea Route, which could provide faster and more reliable transport options (Pruyn & van Hassel, 2022).

The exchange of goods between China and other countries is primarily conducted through seaports located in the South or East China regions. However, there are over eight thousand nautical miles of water separating the Strait of Malacca from the South China Sea, the Red Sea from the Indian Ocean, as well as the Mediterranean from both the Middle East and Europe. This great distance means that the Strait of Malacca, known for its unpredictable political climate and heavy traffic flow, is indispensable in the current maritime trade route between China and other nations. Nonetheless, due to the potential for roadblocks and regional conflicts, China has expressed grave concerns about the dependability of this sea route, giving rise to what is commonly known as the Malacca Dilemma. Moreover, maritime transport has faced criticism for its poor mode consistency, slow delivery times, and unfavorable delivery. Chinese and Pakistani economies profiting significantly from CPEC's creation. Economically, the growth of the trading market between China, the Middle East, and Europe benefits from the potential for reduced travel distances and delivery times. It also benefits from the potential for reduced travel distance and lowered costs for Chinese export industries. However, despite the obvious progress, the CPEC continues to encounter obstacles. Many unknowns exist regarding the safety of the transportation networks that make up the China–Pakistan economic corridor. Collaboration contracts on transportation infrastructure development, upgrading, or pass-through permission, for example, may be put on hold or even terminated if there is a change in government or government policies.

Protecting the oil supply chain continues to be the primary focus of China's strategic planning (Leung, 2011). China is the world's second-largest consumer of energy (Watts, 2010). About 83 percent of China's oil supplies are brought in by sea, with most of these shipments passing via the Strait of Malacca (Dudley, 2019), a potential bottleneck for China. There are several factors, including China's regional disputes, instances of pirate activity, and geopolitics, which combine to make the Strait of Malacca an attentive weakness for China and have the potential to halt economic development if something unanticipated takes place (Cao & Bluth, 2013; Z. Zhang, 2011). The presence of Indian and US armadas in the Strait of Malacca raises serious security concerns and, in the event of any unanticipated actions, can have an impact on China's trade and economic supplies (Hilton, 2013; Siddique, 2014b; H.-Y. Zhang, Ji, & Fan, 2013). Roughly sixty percent of all piracy in that place around the world occurs in this waterway. China hopes to access deep water through Pakistan to overcome these hurdles more easily. Through the construction of a road and rail network, the China-Pakistan Economic Corridor will establish a connection between the city of Kashgar in western China and the port of Gwadar in the southwestern province of Pakistan. Kashgar offers a wealth of business options because it has the quickest land connection to the local markets of Pakistan, Afghanistan, Iran, India, Uzbekistan, and Kazakhstan (S. A. Khan, 2013).

China-Pakistan Economic Corridor

Premier Li Keqiang of China first suggested the idea of the China-Pakistan Economic Corridor (CPEC) during his state visit to Pakistan in May 2013. The initial proposal was to connect Kashgar in Western China with the deep-water seaport of Gwadar, located on the Arabian Sea coastline in Baluchistan. The project was officially approved on July 5, 2013, during the visit of the Prime Minister of Pakistan to Beijing.

In 2015, the President of China signed the final agreements for the construction of the CPEC, which had a total estimated value of $46 billion. This massive economic undertaking primarily focuses on building physical infrastructure to connect China's western region with Pakistan's seaports, including pipelines, roadways, and railways. The government of Pakistan has settled on three alternative highway routes to be built for the CPEC: a western route that will pass through Baluchistan and Khyber Pakhtunkhwa, an eastern route that will run through Punjab and Sindh, and a central route that will pass through the entirety of the country (Alam et al. 2019).

The CPEC aims to modernize Pakistan's transportation network and infrastructure, particularly in railways and roads. The project includes constructing various railway tracks, including high-speed railway tracks, and the modernization of existing conventional railway tracks. It also involves constructing new highways and modernizing existing ones to ensure safe, efficient, and reliable transportation of goods and people throughout the country.

The CPEC is expected to have significant socioeconomic impacts in Pakistan, particularly in terms of job creation and regional development. The project aims to promote economic growth, trade, and investment in Pakistan and to create new opportunities for its people. It also seeks to improve energy infrastructure, including the development of new power plants and the upgrading of existing ones, to address the country's longstanding energy shortages (Abid & Ashfaq, 2015).

Overall, the CPEC is a crucial component of China's Belt and Road Initiative (BRI), a massive infrastructure development program that aims to connect Asia, Europe, and Africa through land and maritime routes. The CPEC is a flagship project of the BRI and represents one of the largest and most significant investments made by China in a foreign country.

National highways network of CPEC

The China-Pakistan Economic Corridor (CPEC) is a key component of China's One Belt, One Road Initiative flagship project. CPEC has given the inhabitants of Gilgit-Baltistan a second chance to alter their destinies after the completion of Karakoram Highway in the 1970s. Likewise, CPEC entails connecting all of Pakistan's municipalities and cities via well-developed road networks, and the construction of these road networks is moving along at a rapid pace.

The China Road and Bridge Corporation built the 118-km road from Havelian to Thakot as an early project of the China-Pakistan Economic Corridor (CPEC). It is part of the Karakoram Highway (KKH) Phase Two project, which includes the expressway section from Havelian to Mansehra and the secondary road section from Mansehra to Thakot. Also, the section of the Peshawar-Karachi motorway from Multan to Sukkar was just finished. Another project is building a road between Khuzdar and Basima about 110 km long.

Transportation costs (both in terms of money and time) may be lowered by expanding the road network, which also aids in the domestic and international integration of different areas. Pakistan's varied landscape includes deserts, plateaus, valleys, mountains, and plains; therefore, a reliable road system is essential for crossing the country. The tourism potential is frequently overlooked even though improved infrastructure may greatly benefit the local population in terms of both quality of life and economic opportunity. Highways networks that are part of CPEC are shown in Figure 1.

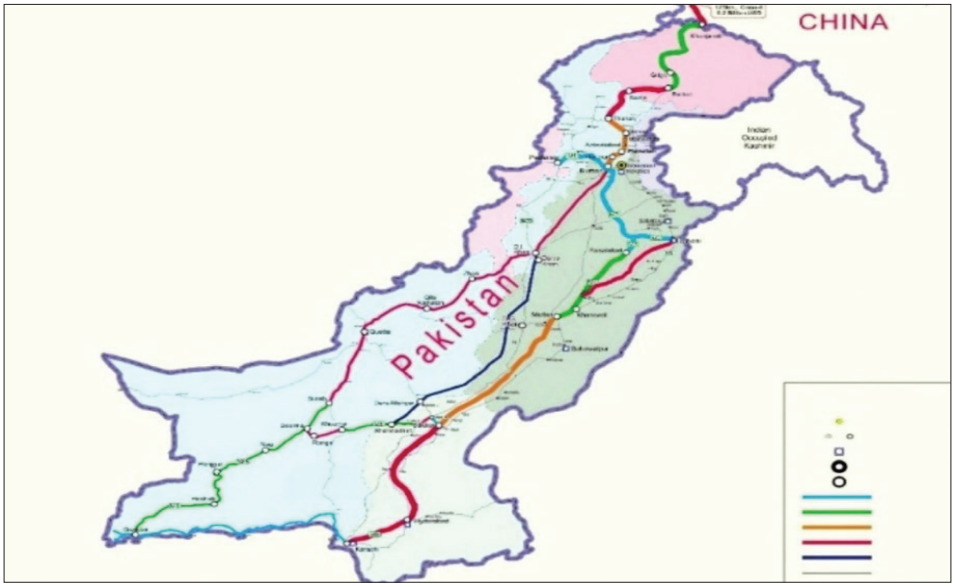


Figure 1: National highways network of CPEC

Railways network of CPEC

The China Pakistan Economic Corridor (CPEC) is a key part of China's Belt and Road Initiative (BRI), which aims to create a network of infrastructure and trade connections between China and other countries in Asia, Africa, Europe, and beyond. As part of this initiative, China and Pakistan recognize the strategic importance of connecting Pakistan's railway network to the deep seaport of Gwadar, located on the Arabian Sea in the southwestern province of Balochistan. By linking Pakistan's railway network with Gwadar port, this initiative will create a crucial transportation artery for trade and commerce in the region. It will provide

a more efficient and sustainable alternative to existing transportation routes, such as the Strait of Malacca, which is often congested and prone to political tensions.

The railway connection between China and Gwadar will also benefit Central Asian states by providing them with access to the port city, which can serve as a gateway to global markets (Alam, Xuemei, Baig, Yadong, & Shah, 2020). This will enhance economic cooperation and regional integration, bringing new opportunities for trade, investment, and tourism. the China Pakistan Economic Corridor (CPEC) and the railway connection between China and Gwadar represent a significant step forward in strengthening the economic ties between China and Pakistan and promoting regional connectivity and integration in South Asia and beyond (X. Li, Alam, & Wang, 2018).

According to the plan, a new 1,059-kilometer railway line would be built from Havelian in Pakistan's Khyber Pakhtunkhwa (KP) province to Kashgar in China's Xinjiang province to connect the two countries by rail. The previously approved CPEC project for upgrading the current Main Line 1 (ML-1) railway track from Peshawar to Karachi would be implemented in the first phase, followed by laying additional railway lines across the nation to increase commercial activity under CPEC. To link the port city with the rest of the nation and China, a further 1,328-kilometre-long new railway line between Jacobabad and Quetta through Basima has also been proposed to be built at $4.5 billion. Like this, Pakistan Railways also intends to build a new 560 km railway line along ML-2 through Zhob and DI Khan from Quetta to Kotla Jam. The idea includes building a new railway line in Afghanistan from Peshawar to Torkham. All these new rail projects are part of CPEC's long-term plan, which is supposed to be finished by 2030. The CPEC railway network is illustrated in Figure 2.

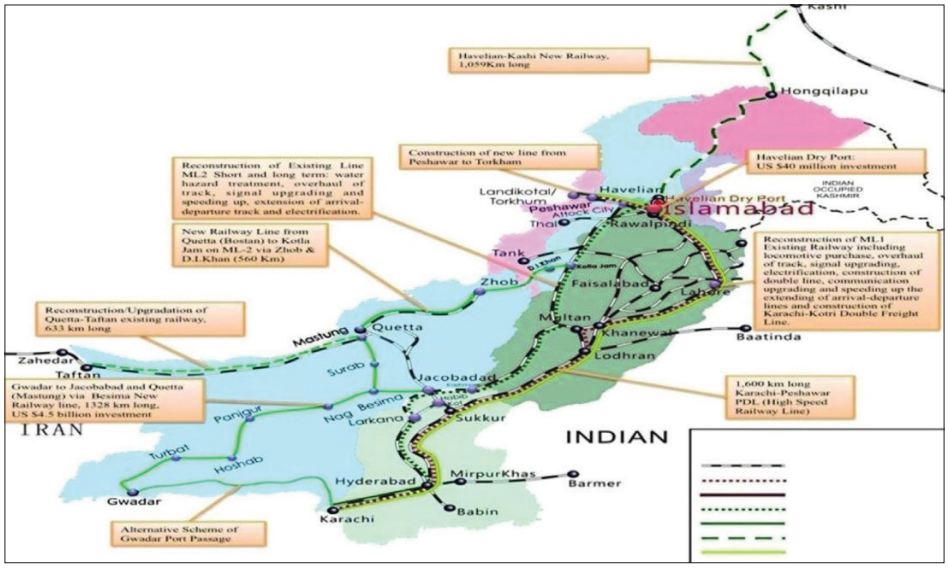


Figure 2: Railways network of CPEC

China-Pakistan Fiber Optic Project (CPFOP)

China and Pakistan have launched the largest digital connectivity project between the two countries, called the China-Pakistan Fiber Optic Project (CPFOP). This project is vital for sharing information technology and is considered the foundation of digital connection between the two nations. The CPFOP enables China to bring its digital communication technologies to Pakistan through fiber optics, which has become operational for the first time.

Pakistan needs to keep up with the rapidly changing landscape of digital connectivity to reap the benefits of this transformation. This can be achieved by ensuring there is sufficient and uninterrupted global connectivity. To enhance connectivity on the international level, a special communication organization (SCO) came up with the idea of an optical fiber cable link with China. This link is designed to provide an alternative path for national communication and traffic on the international level.

The CPFOP involved installing an underground and aerial optical fiber line spanning 850 kilometers from Rawalpindi to Khunjerab, ultimately connecting with China. The work, including setting up high-end capacity microwave transmission equipment, was completed in a record two years instead of the originally planned three years.

The project has significant socioeconomic implications, along with its strategic importance. For example, the optical fiber cabling is crucial to other plans being executed within the China-Pakistan Economic Corridor (CPEC) and is essential for international transit traffic. The project will help boost Pakistan's telecom and information and communications technology industries, promote tourism, and create trading opportunities in the country's northern regions. It will also provide the necessary ICT infrastructure for 3G and 4G services in the northern regions and improve communication security by using a different fiber path. This project is estimated to benefit 17 million people.

As part of the digital highway plan, the next phase will connect Islamabad to Karachi and Islamabad to Gwadar. The China-Pakistan Fiber Optic Project is illustrated in Figure 3.

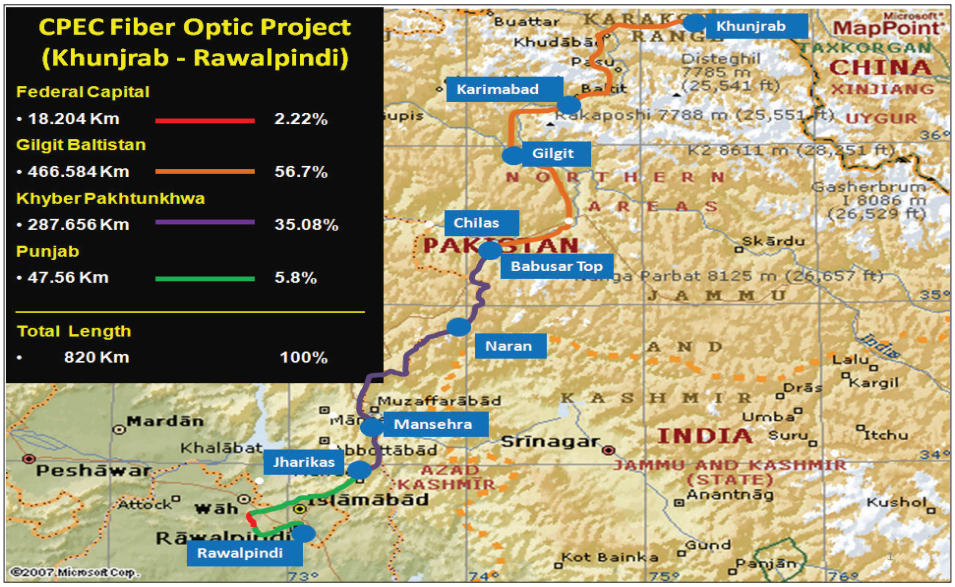


Figure 3: China-Pakistan Fiber Optic Project

Gwadar Port

Gwadar is a deep-sea port located near the mouth of the Persian Gulf, adjacent to the Strait of Hormuz, the third most trafficked route and runs 35% of all global maritime cargo. Therefore, the port of Gwadar is particularly appealing to China since it will allow them to overcome difficulties with naval trade and connect Western China to the rest of the globe through regional and economic connectivity (Shaikh, Ji, & Fan, 2016).

Many people see the development of Gwadar Port as the most important project of the China-Pakistan Economic Corridor (CPEC), which is part of the Belt and Road Initiative (BRI). Countries on both sides of the Arabian Sea have praised its smooth and well-planned start-up. As part of the BRI, China's overall opening-up plan has led to the high-quality development of a Pakistani port, which shows how peaceful development can lead to global connectivity and economic growth in the area. This is a result of China's all-around opening-up agenda.

Gwadar Port's development is restoring the region's geoeconomic balance because it has started to solve Pakistan's economic problems by making it easier for everyone to work together and opening new trade routes to other parts of the world. Gwadar Port's effects are not only limited to China and Pakistan; they also have the potential to influence the regional economy and the general dynamics of future international trade and economic connections.

Figure 4: Gwadar Port

Benefits of CPEC for Pakistan

The investment in infrastructure that will take place as part of CPEC will influence the expansion of Pakistan's economy in various ways. In the first place, it will bring about a shift in the means of transportation while simultaneously lowering the costs of China and Pakistan's trade. Second, it will strengthen the economic cooperation with China, the most significant trading country in the world. Finally, it will stimulate business activity within Pakistan. For example, the Karachi and Gwadar seaports will be connected by a network of trains and roadways thanks to the China-Pakistan Economic Corridor (CPEC) project. Because of the improved connectivity, the cost of transportation and the amount of time spent traveling will be reduced. In addition , it will not only enhance the competitiveness of existing businesses but also lead to a growth in exports (Baig & Feng, 2016; Yadong Li, Li, & Khalid, 2018).

In addition to that, the initiative will also aid in boosting the number of products that are exported. For instance, the northern regions of Pakistan are responsible for the production of fruits and vegetables. Still, most of these goods are unable to be shipped because there is a lack of reliable connectivity. The China-Pakistan Economic Corridor (CPEC) will connect Rawalpindi, Peshawar, and Lahore in Pakistan's north. Because of the perishable nature of these goods, most of them are shipped via air. This will make it easier to increase the number of exported agricultural products (Baig & Zehra, 2020). Furthermore, the construction of the CPEC could result in a shift in how people travel. As soon as the project is finished, a significant proportion of economic activity involving China will be redirected toward the land route. Although traveling by ship is option affordable, the most cost-effective mode of transit is driving.

The expansion projects of Pakistan's infrastructure would benefit the country's overall development (Baig, Qasim, Xuemei, & Alam, 2020). Pakistan's labor market would improve because of the planned industrial parks and economic zones established in cities along the CPEC route. Additionally, Pakistan's real estate and construction industry would improve because of the rapid development of infrastructure, which would then contribute to the development of remote areas in the provinces of Balochistan, Khyber Pakhtunkhwa, and Gilgit-Baltistan.

Benefits of CPEC for China

The China-Pakistan Economic Corridor (CPEC) will connect China and Europe via Central Asia, while the Maritime Silk Road will ensure a secure path for maritime commerce through the Indian Ocean and the South China Sea. The China-Pakistan Economic Corridor (CPEC) will connect China to about 50 percent of the world's population. The construction of a seaport at Gwadar will enable China's naval vessels and commercial ships to circumvent the Malacca Strait. This will also make it easier for Beijing to monitor the maritime activity of the United States and India in the Indian Ocean. In addition, China's goal is to speed up the process of modernizing Xinjiang and the other underdeveloped provinces are to be on par with the areas of the province in the east. China requires access to deep waters in the Arabian Sea through Gwadar to accomplish these goals because this route to global markets is the quickest and most cost-effective (Ghanem, Xuemei, Alam, & Baig, 2021).

The most significant advantage that CPEC might provide for China is a reduction in the distance that its goods must travel to reach other countries, from the usual sea route of 12,000 kilometers down to 2,000 kilometers. While oil shipments from Gulf states would travel through Pakistan on their way to China, non-oil imports might use Gwadar as a transport route to reach the rest of the globe. Silk Route was one of the historically and oldest trade routes pre-traditional the Han Dynasty of China, connecting China through the Indian subcontinent, Asia Minot, Africa, Greece, Rome, and Britain. CPEC will also help resuscitate the Silk Route, one of the historically and oldest trade routes pre-traditional the Han Dynasty of China. The trade of cultural practices, scientific theories, technological advancements, and architectural designs along the Silk Route contributed the most to the overall value of the route. Considering the prevalence of bigotry and nationalism today, such benefits can serve as a symbol of rising acceptance and peace to bring people together.

Pakistan and China will be able to strengthen their trade relations because of their proximity. The GDP of both economies will significantly improve because of the building and improvement of a land route, which will also result in a significant reduction in the physical distance and travel time between Pakistan and China. China would benefit economically from a reduction in travel time and distance and decrease space from a linkage to a broader market. Both factors will contribute to China's economic growth. In addition, because of developments in global

trade flows, it is anticipated that there will be a significant shift in the trade that occurs between the various regions of Pakistan and China.

CPEC under Belt and Road Initiative

The Belt and Road Initiative currently includes around 65 developing countries as participants. The Silk Route Economic Belt, the Maritime Silk Road, and the China-Pakistan Economic Corridor are all illustrated in Figure 5. The primary objective of the Belt and Road Initiative is to raise the level of economic development in the countries participating in the initiative by enhancing the quality of the transportation infrastructure in those countries. The nations participating in One Belt One Road can gain valuable insight from the China-Pakistan Economic Corridor regarding how to get the most out of their investments in various forms of transportation infrastructure. Pakistan is a significant companion country in the execution of the Belt and Road Initiatives [25], and the development of CPEC is one of the megaprojects that are being undertaken as part of BRI. A network of highways establishes a connection between the Pakistani port of Gwadar and the Xinjiang Uyghur Autonomous Region in Northwestern China. This provides Pakistan with the much-required economic infrastructure (K. X. Li, Jin, Qi, Shi, & Ng, 2018). It is predicted that the China-Pakistan Economic Corridor (CPEC) will not only open new avenues for commercial and economic cooperation between Pakistan and China also own a tremendous demonstration value for increasing cooperation under the B&R Initiative.

Pakistan has a precise location strategically speaking. Even though Pakistan and China began trading across their shared border in the 1990s, the amount of commerce and economic activity between the two nations still needs to grow. This is primarily due to Pakistan's inadequate transit infrastructure. Because of its inadequate infrastructure, the country's economy has shrunk to 6% of the global total (X. Li et al., 2018). Both countries will benefit from an increase in economic activity and an improvement in relations because of the construction and improvement of oil and gas pipelines, trains, and roads as part of the CPEC.

The China-Pakistan Economic Corridor (CPEC) will link the country to the One Belt One Road initiative and provide the quickest route to Central Asia and Europe markets. The China-Pakistan Economic Corridor (CPEC) is not a bilateral initiative but has local dimensions, and it will offer Pakistan's trade with China and other countries an enormous boost.

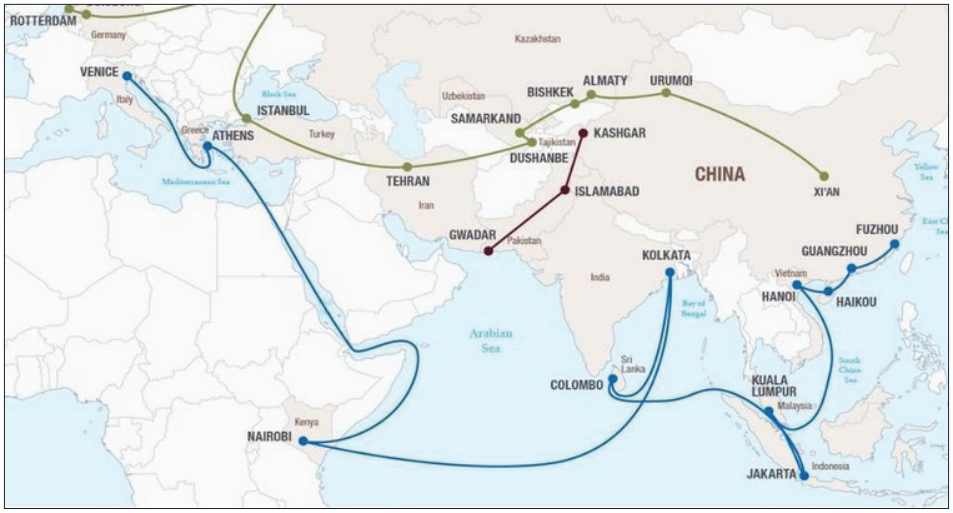


Figure 5: CPEC and One Belt One Road

Traditional Route

The historic route from Kashgar, which is in Western China, to Europe and the Middle East consists of a roadway and a sea route. The conventional route may be broken up into two parts: the distance from Kashgar to the seaport in Shanghai is referred to as a roadway, and the distance from the port in Shanghai to the target seaports in Europe and the Middle East is referred to as a seaway. The road takes the 40-foot container from Kashgar in Western China to the port in Shanghai. From there, it is transported by ship to its destination harbor. Figure 6 illustrates China's typical route to trade from Kashgar in Western China to Europe and the Middle East. This route may be seen on the Figure 6.

Figure 6: Traditional Route

New CPEC Route

The new China-Pakistan Economic Corridor (CPEC) route from Kashgar in Western China to Europe and the Middle East consists of a waterway and a roadway. The new route of the CPEC is broken up into two parts: the distance from Kashgar to Gwadar is referred to as a roadway, and the distance from Gwadar seaport to other European seaports and the Middle East is referred to as a seaway. The forty feet container travels by road from Kashgar in Western China to the Gwadar seaport in Pakistan before continuing their journey by water to its destination seaports. Figure 7 illustrates the newly established route that forms part of the CPEC, which China will utilize as an alternate route for transporting goods from Kashgar in Western China to Europe and the Middle East.

Figure 7: New CPEC Route

Comparison of Traditional and New CPEC Route

The main goal of this research is to find out how the new CPEC route compares to the old route in terms of cost and time.

Comparison of Transport Cost

The new CPEC route is compared to the old route in terms of how much it costs to ship a 40-foot container between Kashgar (Origin Port) and six different ports in Europe and the Middle East. To figure out what the difference means, the cost of shipping on a traditional route is subtracted from the cost of shipping on a new CPEC route. The difference column in Table 1 shows that the transportation cost has decreased, which is a good thing. The results show that the cost of shipping a 40-foot container from Kashgar, China, to Oman in the Middle East via the new CPEC route will go down by $1857 (54.35%) compared to the traditional route and by $1457 (41.43%) from Kashgar, China, to Saudi Arabia and Kuwait via the new CPEC route. Also, a 40-foot container from Kashgar to Europe will cost

$1357 (32.96%) less to ship on the new CPEC route than on the old route. Figure 8 compares the cost of transporting goods on the old route and the new CPEC route.

Table 1: Transport cost comparison between the new CPEC route and the traditional route

Origin port	Destination ports	Country	Traditional route travel time	CPEC route travel time	Difference	Percentage
Kash-gar China	Port of Salalah	Oman	$3417	$1560	$1857	54.35%
	Jeddah	Saudi Arabia	$3517	$2060	$1457	41.43%
	Shuwaikh Port	Kuwait	$3517	$2060	$1457	41.43%
	Rotterdam	Nether-lands	$4117	$2760	$1357	32.96%
	Hamburg	Germa-ny	$4117	$2760	$1357	32.96%
	Le Havre	France	$4117	$2760	$1357	32.96%

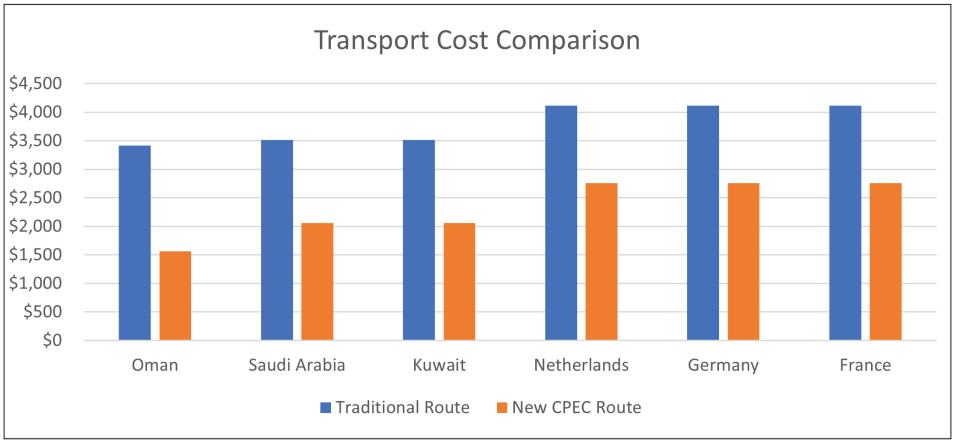


Figure 8: Transport cost comparison between the new CPEC route and the traditional route

Shipping times for a 40-foot container between Kashgar (Origin Port) and six different ports in Europe and the Middle East using the new CPEC route are compared to previous times. The time savings from using the CPEC route can be calculated by deducting the time to go via the old route from the time taken by the new route. Table 2's difference column displays a decrease in trip time, an effect reflected positively in the data. For example, from Kashgar, China, to Oman, in the Middle East, the new CPEC route reduces travel time for a 40-foot container by seven days (74.07%) compared to the conventional route. From Kashgar, China, to Kuwait, it reduces transport cost by twenty-four days (75%). Likewise, the new CPEC route will save the time it takes to ship a 40-foot container from Kashgar to Europe by 21 days (42%). Figure 9 shows the travel time comparison

between the new CPEC and traditional routes.

Table 2: Travel time comparison new CPEC route and traditional route

Origin port	Destination ports	Country	Traditional route travel time	CPEC route travel time	Difference	Percentage
Kashgar China	Port of Salalah	Oman	27 days	07 days	20 days	74.07 %
	Jeddah	Saudi Arabia	33 days	12 days	21 days	63.64%
	Shuwaikh Port	Kuwait	32 days	08 days	24 days	75.00%
	Rotterdam	Netherlands	49 days	28 days	21 days	42.00%
	Hamburg	Germany	50 days	29 days	21 days	42.00%
	Le Havre	France	48 days	27 days	21 days	42.00%

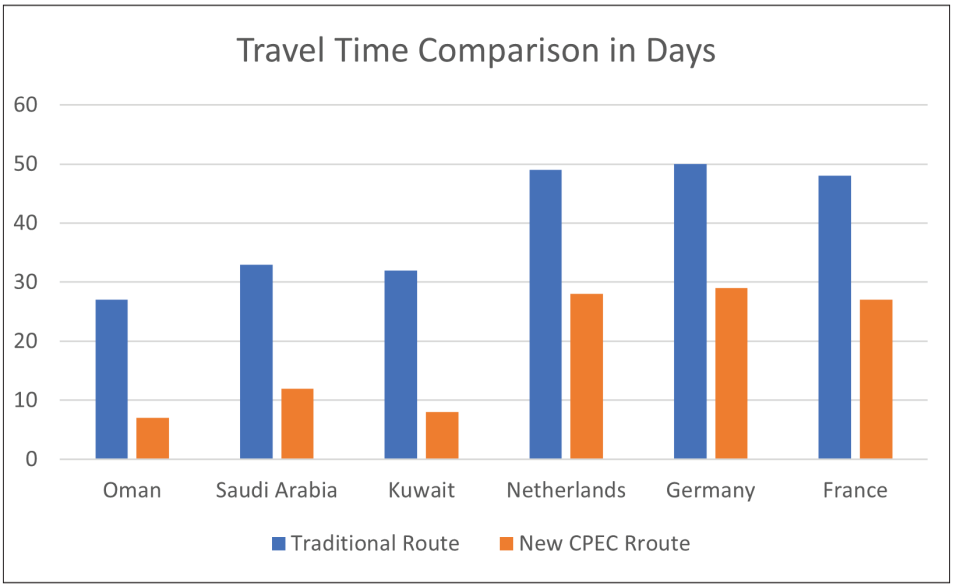


Figure 9: Travel time comparison new CPEC route and traditional route

When comparing the new CPEC route to the traditional route, the distance traveled by a container that is 40 feet long between Kashgar (the Origin Port) and six different ports in Europe and the Middle East is considered. When calculating the impact of the difference, the distance traveled on a traditional route is deducted from the distance traveled on the new CPEC route. Table 3, column D shows that there has been a reduction in length, which indicates a beneficial effect. According to the findings, the distance for a container measuring 40 feet will be reduced by 12114 kilometers (74.26 percent) when traveling via the new CPEC route from Kashgar in China to Oman in the Middle East. The distance will be reduced by 13743 kilometers (75.15 percent) when traveling from Kashgar in China to Kuwait via the new CPEC route. Compared to the previous route, the cost of

transporting a container that is 40 feet long from Kashgar to the Netherlands and Germany will be reduced by 43.86 percent when transported over the new CPEC route. The conventional route and the new CPEC route are compared in their respective distances in Figure 10.

Table 3: Distance comparison between the new CPEC route and the traditional route

Origin port	Destination ports	Country	Traditional route travel time	CPEC route travel time	Difference	Percentage
Kashgar China	Port of Salalah	Oman	16,312km	4,198km	12114 km	74.26%
	Jeddah	Saudi Arabia	18,746 km	6739 km	12007 km	64.05%
	Shuwaikh Port	Kuwait	18,288 km	4545 km	13743 km	75.15%
	Rotterdam	Netherlands	27,372 km	15,366 km	12006 km	43.86%
	Hamburg	Germany	7,887 km	15881 km	12006 km	43.86%
	Le Havre	France	26,889 km	15883 km	11006 km	40.93%

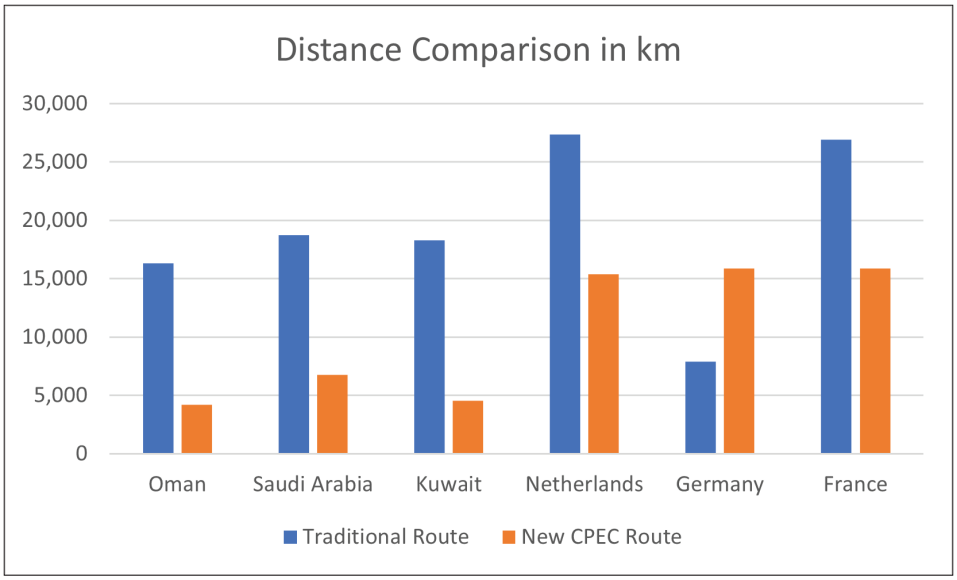


Figure 10: Distance comparison between the new CPEC route and the traditional route

Conclusion

The main aim of this study is to examine and compare the travel time, distance, and cost of 40 feet container between the traditional route and the new CPEC route. Transportation plays a significant role in the transfer of raw materials and finished goods. A good transportation infrastructure enables the safe, faster, and low-cost movement of goods. The launch of the China-Pakistan Economic Corridor could improve the international transport network between China and Pakistan, thus plummeting the dependence of China on the traditional route through the Strait of Malacca. The CPEC will improve the connectivity between Paki-

stan and China by constructing various transportation infrastructure projects and upgradation projects. The CPEC can potentially serve as the China-Middle East and China-Europe alternative trading route.

China needs an alternative trading route that is both safe and quick to reach Europe and the Middle East. In this context, not only will China and Pakistan save millions of dollars in terms of the cost of transportation, but they will also be able to save travel time and cover a shorter distance. The China-Pakistan Economic Corridor is a shortcut and an alternative route that connects the province of Xinjiang in China to the seaport of Gwadar in Pakistan. This corridor will be constructed by improving the road transportation infrastructure network and upgrading the railway network. Deep-water access is available at the port of Gwadar, which is close to the Strait of Hormuz at the mouth of the Persian Gulf. The Gwadar Seaport is highly appealing to China as a solution for the problems associated with sea transport and as a means of connecting Western China to the rest of the globe on a regional and economic level.

The enormous advantages of the China-Pakistan Economic Corridor over the more traditional route have been demonstrated through extensive research and analysis based on the amount of time, space, and money required to transport a generic good from China to the Middle East and Europe. The findings of this study demonstrate that China will save billions of dollars from the new CPEC route on the shipping costs of its imports and exports from certain countries in Europe and the Middle East. These countries were chosen because of their proximity to China. The time it takes to travel from Europe to the rest of the world will decrease by around 21 days, and the amount of time it takes to travel from the Middle East will reduce by approximately 21 to 24 days. Because of the newly established CPEC route, the total distance traveled from Kashgar in Western China to destination nations in the Middle East, and Europe will be cut by around 11,000 to 13,000 kilometers.

It is widely believed that CPEC will completely transform the entire region. In addition to China and Pakistan, the countries of the Middle East, Europe, and the Central Asian states will also reap the benefits of this development. For example, countries in Central Asia that are completely landlocked, such as Tajikistan, Turkmenistan, Kazakhstan, and Kyrgyzstan, as well as Afghanistan, would benefit from having the shortest seaway to the Gwadar port.

Suggested Citation

Alam, K.M, Baig, S., Muhammad, F. (2023). China-Pakistan Economic Corridor: An Alternative Trade Route. In *Silk Road Revisited: Essays and Perspectives on the China-Pakistan Economic Corridor and Beyond* (pp.1-18). CSC-KIU.

References

Abid, M., & Ashfaq, A. (2015). CPEC: Challenges and opportunities for Pakistan. *Journal of Pakistan Vision, 16*(2), 142-169.

Alam, K. M., Xuemei, L., Baig, S., Yadong, L., & Shah, A. A. (2020). Analysis of technical, pure technical and scale efficiencies of Pakistan railways using data envelopment analysis and Tobit regression model. *Networks and Spatial Economics, 20*, 989-1014.

Baig, S., & Feng, Y. (2016). Democracy-governance-corruption nexus: evidence from developing countries. *Pakistan Journal of Applied Economics*, 43-70.

Baig, S., Qasim, M., Xuemei, L., & Alam, K. M. (2020). Is the China-Pakistan economic corridor an opportunity or a threat for small and micro-entrepreneurs? Empirical evidence from Northern Pakistan. *Sustainability, 12*(5), 1727.

Baig, S., & Zehra, S. (2020). China-Pakistan economic corridor, governance, and tourism nexus: evidence from Gilgit-Baltistan, Pakistan. *Current Issues in Tourism, 23*(23), 2884-2889.

Cao, W., & Bluth, C. (2013). Challenges and countermeasures of China's energy security. *Energy Policy, 53*, 381-388.

Dudley, B. (2019). BP statistical review of world energy 2016. *British Petroleum Statistical Review of World Energy, Bplc. editor, Pureprint Group Limited, UK*.

Ghanem, O., Xuemei, L., Alam, K. M., & Baig, S. (2021). The effectiveness of freight costs on trade potentials between China and European Union, Middle East, North African countries under China-Pakistan Corridor. *International Journal of Shipping and Transport Logistics, 13*(3-4), 327-359.

Hilton, I. (2013). China in Myanmar: implications for the future. *Norwegian Peacebuilding Re*.

Khan, S. A. (2013). Geo-economic imperatives of Gwadar Sea Port and Kashgar economic zone for Pakistan and China. *Ipri Journal, 13*(2), 87-100.

Lanteigne, M. (2008). China's maritime security and the "Malacca Dilemma". *Asian Security, 4*(2), 143-161.

Leung, G. C. (2011). China's energy security: perception and reality. *Energy Policy, 39*(3), 1330-1337.

Li, K. X., Jin, M., Qi, G., Shi, W., & Ng, A. K. (2018). Logistics as a driving force for development under the belt and road initiative–the Chinese model for developing countries. *Transport Reviews, 38*(4), 457-478.

Li, X., Alam, K. M., & Wang, S. (2018). Trend analysis of Pakistan railways based on industry life cycle theory. *Journal of Advanced Transportation, 2018*.

Li, Y., Li, X., & Khalid, M. A. (2018). Measuring technical efficiency of Chinese railway administrations by DEA method. *Journal of Interdisciplinary Mathematics, 21*(4), 825-836.

Pruyn, J., & van Hassel, E. (2022). The impact of adding the Northern sea route to the Belt and Road Initiative for Europe: A chain cost approach. *Transportation Research Interdisciplinary Perspectives, 15*, 100659.

Shaikh, F., Ji, Q., & Fan, Y. (2016). Prospects of Pakistan–China energy and economic corridor. *Renewable and Sustainable Energy Reviews, 59*, 253-263.

Siddique, Q. (2014). Deeper than the Indian ocean? An analysis of Pakistan-china relations. *Center for International and Strategic Analysis Report*(16).

Watts, J. (2010). China overtakes US as world's biggest energy consumer'. *The Guardian, 3*.

Zhang, H.-Y., Ji, Q., & Fan, Y. (2013). An evaluation framework for oil import security based on the supply chain with a case study focused on China. *Energy Economics, 38*, 87-95.

Zhang, Z. (2011). China's energy security, the Malacca dilemma and responses. *Energy Policy, 39*(12), 7612-7615.

2

Pakistani Stakeholder's Vision of Tourism Development under China-Pakistan Economic Corridor Initiative

Wajid Ali
Institute of Business Administration (IBA), Karachi Pakistan

Junaid Alam Memon
https://orcid.org/0000-0003-1555-1609
Institute of Business Administration (IBA), Karachi Pakistan

Introduction

Over the last few decades, global tourism has emerged as the most robust, fast growing, increasingly diversified, and highly innovative industry. In 2016, the industry accounted for 10% of global GDP and 7% of global exports; and ranked third important industry after fuels and chemicals (UNWTO, 2016). Despite differences in travelers' safety, infrastructure and institutional arrangements, the tourism industry has demonstrated highly inclusive growth, benefiting both developed and emerging economies from tourist arrivals and receipts (UNWTO/GTERC, 2016). The industry has enormous potential to continue this trend at least until 2030 (UNWTO, 2017) and make a significant contribution to the socio-economic development of developing regions in the form of employment generation, foreign exchange inflows and infrastructural development (UNWTO, 2016). Despite its relatively huge tourism potential in the region, Pakistan lagged India, Sri Lanka, and Maldives; stands parallel to Nepal; and is slightly better than Afghanistan, Bangladesh, and Bhutan in terms of its tourist arrivals and tourism receipts (UNWTO, 2016).

Nevertheless, the China-Pakistan Economic Corridor (CPEC) has created a unique opportunity for Pakistan to benefit from tourism in at least three distinct ways. Firstly, the CPEC is likely to increase the state of security in the country (Jamal, 2017) and may indirectly benefit the tourism sector by increasing the confidence of the global tourist community to visit Pakistan and experience its rich culture and scenic beauty. Secondly, the CPEC will expose Pakistan to the Chinese outbound tourist market due to increased social, economic, and infrastructural connectivity. According to The Brand USA (2014) report, the emerging middle and upper class in China is highly adventitious and willing to spend about one-fifth of their yearly income on overseas tours. If the Pakistani tourism industry prepares itself to the taste and preferences of Chinese tourists, it is certainly going to get its due share from the world's largest and fast-growing outbound tourism market evolving in its neighborhood (The Brand USA, 2014; UNWTO, 2017). The third and perhaps the most important opportunity is the Chinese interest and proactive

investments in Pakistani tourism industry (Ahmed, 2016; Daily Times Staff Report, 2017), which if carefully regulated may benefit the local communities and the economy.

To an extent the tourism capital may benefit Pakistani people and economy in the wake of CPEC will largely depend on how we reorganize and manage the tourism superstructure to our advantage, particularly with reference to the latter two aspects described above. This seemingly easy-hanging fruit of tourism is, in fact, very difficult to pluck due to the intricate and fragmented nature of tourism industry that demands a high degree of stakeholders' collaboration. Such collaboration is more likely if key stakeholders are fully aware of the opportunity and have plausible plans to get maximum benefit out of it. So far, nothing is known about how different stakeholders perceive the CPEC phenomenon and what are their plans for the development of tourism. Without firm understanding of Pakistani stakeholders' knowledge, attitudes, and other capacities, it is very less likely that any tourism planning effort would be successful to ensure their full engagement and meaningful contribution. This study tried to bridge the above-highlighted knowledge gap by answering the following research questions through a case study of stakeholders' vision for tourism in Gilgit-Baltistan in the era of CPEC.

1. How different groups of Pakistani stakeholders perceive different dimensions of tourism likely to be impacted by CPEC?
2. To what extent Pakistani stakeholders consider themselves prepared to benefit from the tourism potential brought in by the CPEC?
3. What is the policy direction that Pakistani stakeholders suggest as guiding principles for planning and negotiating tourism investments with China?

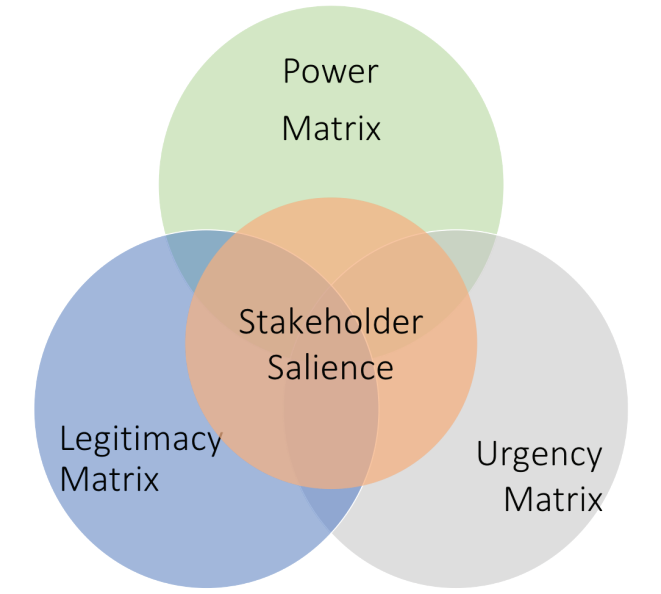
Methodology

Overall Approach

This was a primary data-based qualitative case study of stakeholders' vision of Gilgit-Baltistan tourism in the wake of CPEC. The required information came from various primary sources and fieldwork comprising In-depth Interviews (IDIs) with key stakeholders, (including purposively selected in individuals and communities) and Field Observations (FOs). The hybrid version of Mitchell et al. (1997) heuristic, popularly known as 'Stakeholder Salience' was used to identify and categorize different stakeholders based on their salience, i.e., power, legitimacy, and urgency (Figure 1). A sample of those stakeholders was interviewed to explore the answers of the above-raised research questions. The results of this exercise were fed into Arnstein's (1969) "ladder of participation" to analyze the relative importance of different stakeholders for tourism policy making and planning in the study area.

Methods of Data Collection and Analysis

Representatives of more than 22 entities comprising persons and groups, neighborhoods, organizations, institutions, societies, and natural environment were interviewed (See Figure 2). This was done under the assumption that a flourishing tourism industry need working with interdependent stakeholders, where no single owner (public or private) can resolve all strategic issues in complex tourism 'domain'. Semi-structured interview guide and standard interview protocols were used to collect the required information. Fieldwork was carried out first at Islamabad and then Gilgit-Baltistan as the some of the stakeholders were based in Islamabad. All interview meetings were convened in the respondents' places, in reasonably quiet and calm settings to ensure that respondents feel easy during interviews. Most interviews were recorded with prior consent of the interviewees. To ensure the confidentiality and anonymity as promised while obtaining the consent of the respondents, the identities of respondents was concealed.



Conceptualized from: Mitchell et al. (1997), Schlager and Ostrom (1992), Winstanley et al. (1995)

Figure 1: Analytical Framework of 'Stakeholder Salience

The data analysis process involved management and interpretation of data. The research team first organized the data and brought it into a digital format (i.e., made transcripts from audios and field notes) and read and reread the transcripts, paragraphs and phrases to ensure accuracy of data compilation. All data were coded into different categories and sub-categories such as process codes, activity codes, strategy codes and relationship codes. The coding was the transition process between collection and analysis of data. The coding process ranged from

assembling convergent and divergent responses from different types of stakeholders such as private and public stakeholders and clustered them on the bases of similarities and difference. Coding and recoding of data helped the researchers to capture the hidden and emerging themes while answering the above raised questions.

Results: Stakeholders and their Perceptions

Stakeholder Identification: Who has a stake?

Like elsewhere and as expected, the tourism landscape in GB assembles varied stakes and worldviews. A snowballing approach was adopted to enlist the stakeholders where each interviewee nominated entities that to them had any kind of stake in the GB tourism. Resultantly, one could enlist more than 60 stakeholders in the GB tourism industry. The clutter diagram given as Figure 2 shows just 60% of them yet gives a fairly good idea of the complexity involved in management of the industry. Some stakes, such as that of the GBC and GBTD, were obvious while the other important stakes, such as H&PD, were not that much obvious. In the latter case for example, the local law and order need to be maintained if tourism industry must flourish. This may increase the workload of the law enforcement agencies and thereby justify their stake in the industry. Based on the above-mentioned methodology, the subsequent sub-section tries to ease-out this clutter and give a more comprehendible mapping of tourism stakeholders in GB.

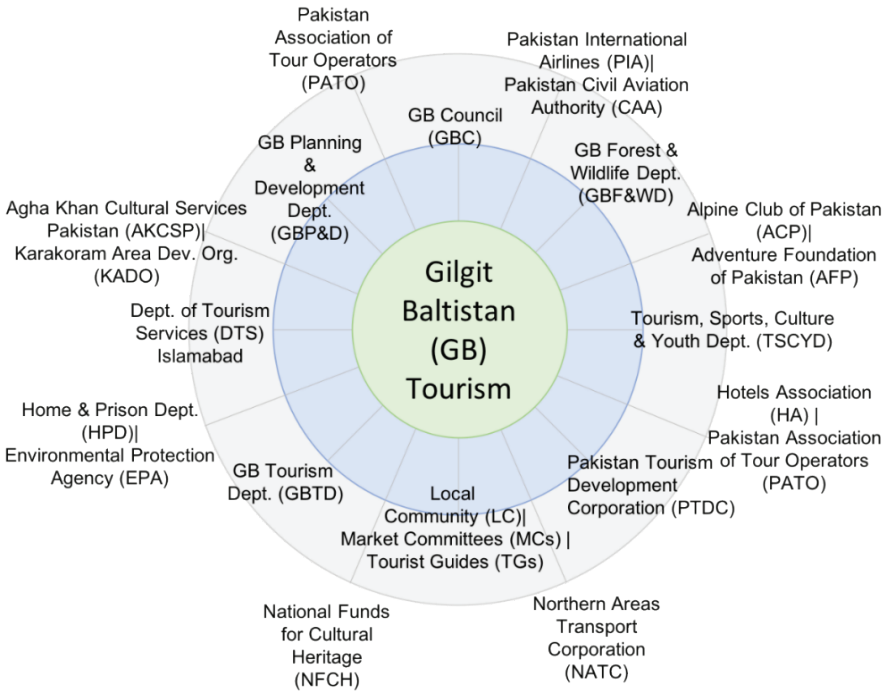
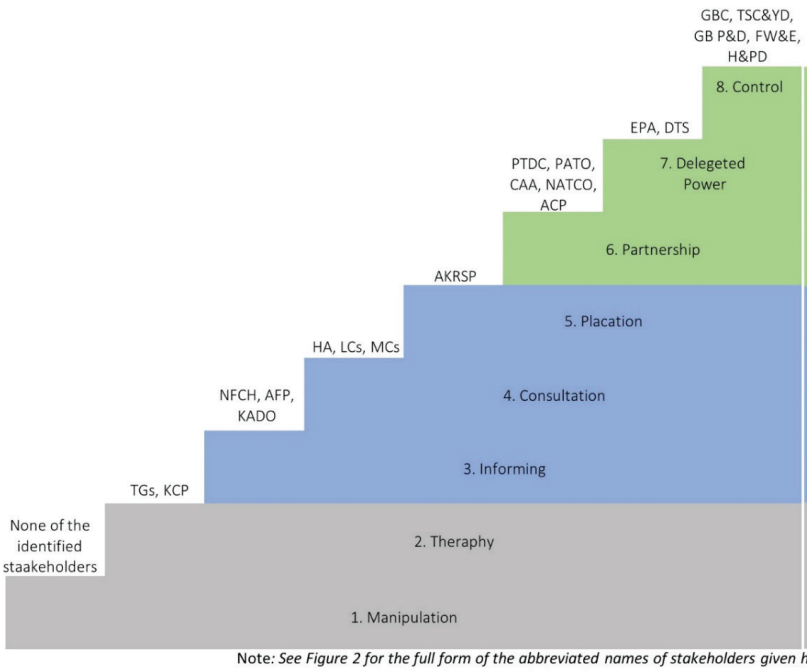


Figure 2: Stakeholder Clutter- Showing the Complexity of Tourism Landscape in GB

Stakeholders Salience: Whose Stake Currently Counts?

In resolving the stakeholder clutter, the 'Stakeholder Salience Model' had been useful; and placing stakeholders on 'Ladder of Participation' clarified their relative importance in the industry (Figure 3). Eight group of stakeholders with relative importance in tourism industry ranging from 'no-participation' to 'genuine participation' were worked out based on assessing each stakeholder's power, legitimacy, and urgency. At the highest rung (No. Eight) lies, the Gilgit Baltistan Council (GBC), Tourism, Sports, Culture & Youth Department, GB Planning and Development Department, Forest, Wildlife and Environment Department and Home and Prison Department. This implies that these stakeholders have full charge of policy and managerial aspect. The rung seven (delegated power) houses the Environmental Protection Agency (EPA) and Department of Tourism Services (DTS) Islamabad, implying that these two institutions dominate decision making over a particular plan or program. On rung six, (partnership), rests the Pakistan Tourism Development Corporation (PTDC), Pakistan Association of Tourism Operators (PATO), Civil Aviation Authority (CAA), Norther Areas Transportation Corporation (NATCO) and Alpine Club of Pakistan (ACP). These institutions represent distributed power through negotiations with stakeholders. Only institutions laying on these three rungs (Eight to Six) can be considered as genuinely participating and thereby having significant impact on current policy and practice in tourism industry (Figure 3).



Note: *See Figure 2 for the full form of the abbreviated names of stakeholders given h*
Source: *Authors analysis based on Arnstein's (1969).*

Figure 3: Stakeholder Ranking on Ladder of Participation

All the stakeholders on the remaining downward rungs can be considered either as tokens having symbolic presence (rungs five to three) or as non-participants (rung two and one) in tourism policy and practice (Figure 3). The rung Five, (placation), is occupied with Agha Khan Rural Support Program (AKRSP) type organizations. Given the AKRSP's grassroots presence and influence on local communities' socio-economic, religious and cultural affairs, it can be placed on departmental committees and boards where it enjoys some degree of influence on policy decisions. On rung Four (consultation), various community groups such as Hotel Associations (HAs), Local Communities Groups (LCs), and Market Committees (MCs) are placed. Policymakers and practitioners consult with such stakeholders without any guarantee that their voices will reflect in policy and practice decisions. The rung three (informing), welcomes the entities like National Fund for Cultural Heritage (NFCH), Adventure Foundation of Pakistan (AFP) and Karakoram Area Development Organization (KADO). They are generally well-informed because they receive information on important policy decisions but are rarely welcomed to provide feedback and negotiate. The rung Two (therapy) is the placement for entities like Tourist Guides (TGs) and Khurpa[1] Care Pakistan (KCP) who are asked to change their values and attitude to be able to benefit from changing policy and practice environment. The last rung (No. One) is for public whose support is engineered for the intended activates in tourism. This is sought through various means including media and mass mobilization.

Stakeholders' Perception: How Tourism is Perceived under CPEC?

Stakeholders were generally convinced that GB offers various attractive forms of tourism, provides unique exposure to natural beauty and rich culture and heritage, and thereby may give the tourists a reasonable value for their money. They were however concerned that it remains merely as a potential without much on that ground that could boost the local socioeconomic development. In this backdrop various themes emerged out of the in-depth interviews which are organized and presented into the following sections:

Improved Security and Tourism

CPEC promotion is backed by a state-sponsored discourse that held China Pakistan Economic Corridor (CPEC) as a game changer for Pakistan. Most economic experts and public officials subscribe to this discourse. They see positive side of the coin and foresee CPEC having beneficial impact on all sectors of Pakistani economy including tourism through better infrastructure connectivity, improved security situation and general socio-economic development. This is evident from following expression during IDIs:

> *"The CPEC will improve the quality of tourism services between the two countries with lasting impacts on* [local] *socio-economic development… CPEC would improve the services of public information, infrastructure facilities, provide*

> *convenience in transportation, security protection and other services benefiting the public.* (A Representative of TD GB)

The public-sector stakeholder's emphasis was on inbound tourism as compared to international and Chinese tourists. It is because of the lack of information regarding changing international tourism trends of which public stakeholders were barely aware without any in-depth information of the Chinese outbound tourist market. In absence of adequate information, they see tourism merely as a leisure and adventurous activity. Federal control over tourism affairs in GB further limits the power and exposure of even most powerful stakeholders such as GBC. Furthermore, there are various higher-level issues which are beyond the GBC control. A GBC representative expressed their frustration as:

> *The devolution of the federal powers of the Ministry of Tourism has not served its purpose, at least for GB… At provincial level we lack powers to make agreements with international parties to bring investment in tourism development… Ease in visa policies and on arrival visa is key for the arrival of international tourists. We can only request the federal government to introduce on arrival visa system.* (A representative of GBC).

> *I acknowledged that GBC has powers* [on paper]*, but it has limited* [exercise of] *powers as compared to the powers afforded to the Ministry of Tourism in the past…The deteriorating law and order condition aside, the responsibility for the decline of international tourism in the province lies with both GBC and the federal government* (A Representative of GBC).

On the other hand, most of the private stakeholders showed concerns over the tourism development under CPEC due to the lack of information regarding CPEC, prevailing institutional structure of tourism governance, impact of CPEC on environment and adverse impact of CPEC security arrangements on the confidence of emerging tourism market. Security situation and its management was one of the major themes as echoed in the following quotes:

> *If a given [tourist] area is dotted by checkpoints, rest assured it is beset with serious law and order issues. In Gilgit-Baltistan, however, it is the other way around.* [Even] *In areas where the law-and-order situation are stable, there are numerous checkpoints.* (A Representative of PATO)

> *Tired of repeated entries* [registrations] *at various check-*

> *points, a foreigner who is heading towards Gilgit from Rawalpindi write 'hell' when he was asked to write where he is heading to. 'Heaven' is his next answer when he is asked to mention where he is coming from.* (A Representative of Tours Guides Association)

> *In a nutshell, whether checkpoints deter criminals or not, they do terrorize the tourists. Tourism is the mainstay of the GB economy, and it can't be promoted under the shadow of check posts.* (A Representative of PATO)

> *It takes foreign tourists two or three months to obtain Pakistan's visa… Visa is issued only after getting an NOC from the Interior Ministry. Further restrictions would deter foreign tourists from visiting Pakistan and ultimately, they would cancel their plans to visit the country. Foreign tourists visited the country to enjoy their holidays and they would be irked by such restrictions*. (A Representative of HA)

On probing most of the answers from public stakeholders also implicitly supported the argument put forth by the private stakeholders. The public stakeholders and particularly, the authorities responsible for security have a clear stance that security of CPEC is first and for most priority.

> *On one hand we need to complete our security requirements and on the other facilitate legitimate traffic of tourists, investors, and businessmen*. (A Representative of H&PD-GB)

> *"The tourists are our guests and certainly they are a source of income, but that income shouldn't come at the price of our state security. Security of CPEC is our priority.* (A Representative of Home and Prisons Department GB)

From above quotes one can deduce that although CPEC will improve the overall security but the way it is currently operationalized will have adverse impact on the arrival of international tourists. The visible security measures for CPEC have a negative connotation and portray a scary image of the areas.

Improved Infrastructure and Market Connectivity and Tourism

There was a general lack of awareness among public and private stakeholders about the emerging global tourism trends particularly the fact that China is the world's largest out-bound tourist market. They however see huge potential of the sector to appropriate global tourism market share if facilitated through other supportive policies such as visa on arrival facility and simplified procedure that will attract both Chinese and global tourist to visit Pakistan in general and GB.

> *CPEC is lucrative for and make conspicuous effect on tourism industry in Pakistan. Furthermore, reinforced roads and other infrastructure will make the pure tourist spots accessible. With more of the facilities* [such as visa on arrival]*, there will be a massive increase in the* [global] *visitors to explore the spectacular landscapes.* (A Representative of DTS)

Most stakeholders were optimistic about the positive impact of Chinese investment in the GB's tourism industry. The public stakeholders saw it as a booster to the overall economic development of the region but lacked a clear idea of how it will trickle down to the locals and marginalized sections of the society. On the other hand, the private stakeholders had serious concerns regarding the foreign investment in GB tourism. The private stakeholders suggest that the Chinese investment in tourism sector will wipeout the small local actors. Without upgrading their capacity to survive amid foreign investors' competition, the Chinese investment may be counterproductive for them. The following accounts highlight one such concerns:

> *We certainly require foreign private investment in the tourism industry. But it is the job of the government that foreign investors don't get* [undue] *advantage over local investors or the new jobs don't go* [only] *to the Chinese workers.* (A Representative of MCs)

Stakeholders Preparedness

Both public and private stakeholders show ignorance and lack of preparation for tourism development in the context of CPEC. There were two main reasons behind this: Firstly, all the stakeholders' lacked knowledge about the changing trends in the global tourism industry. They lack knowledge about the world biggest outbound tourist market of Chinese was one of the strangest things to notice. Most of these issues are already expressed in the above given quotes. The focus of stakeholders was mostly on inbound tourism and European market. Secondly, almost all the stakeholders, both public and private had very little information regarding CPEC and what it offers. Both public and private stakeholder were very superficially aware about what CPEC is and how it can impact on the GB tourism industry. Following quote from an NGO representative nicely sum up the general thinking about CPEC and its offers and opportunities:

> *CPEC is like a floating bubble in the air. First let the bubble touch the ground* [and we will see what it throws towards us]*. (A Representative of KADO)*

Stakeholder Suggested Policy Directions

Various themes emerged when stakeholders were asked about their suggestion for the policy directions for tourism development under CPEC. Some related with the difficulties that tourists face when attempting to visit GB, while other were concerned about the negative environmental impacts of land use land cover

changes due to infrastructure development. Another set of stakeholders was concerned about the threat that local cultural and natural endowments will unduly benefit Chinese because they have means to extract these resources and leave ruins behind when these landscapes are no more attractive. Indeed, there was a whole range of concerns most of which were primarily the result government's hesitation in the public disclosure of various basic details of CPEC and thereby emergence of numerous conspiracy theories raising stakeholders' suspicions about the CPEC.

Suggestions Regarding Easy Entry of the Tourists in GB

> *After getting Pakistan's visa, foreign tourists should not require getting NOC for visiting a particular part of the country.* (A Representative of PATO).

Government representatives go on suggesting ways to neutralize the negative connotation posed by numerous police check posts in the area by suggesting*:*

> *The traditional dress gives the police a friendly look…It will help promote culture as well as tourism for which the region is famous… the region was fast becoming a tourist-destination, especially in the summer, and wearing traditional clothing would help give them* [to police] *a softer image among foreign and domestic tourists.* (A Representative of GBC)

Some suggested government resolve institutional confusions and unrest arisen especially after 18th amendment:

> *The 18th Amendment has had a far greater negative affect on tourism in Gilgit-Baltistan than the constant threat of terrorism…The devolution of the federal powers of the Ministry of Tourism has not served its purpose, at least for GB.* (A Representative of PATO)

> *There is no defined central tourism Authority in Pakistan after devolution of the federal tourism ministry to the provinces under the 18th Amendment. Any international agency cannot make tourism related agreements with all the provinces separately.* (A Representative of DTS)

Some suggested government to take special steps to protect local communities through capacity building programs so that outsider investors do not take undue advantage of the local tourism endowments.

> *At present there is no incentive for local investors in tourism services* [such as hoteling] *to expand and set up new projects. Exemptions to Chinese investors and contractors will hurt lo-*

> *cal investors if government does not empower and build their capacity of through specialized programs.* (A Representative of PATO)

Most importantly, the environment was one of the major concerns among communities, NGOs, and other stakeholders. They foresee adverse impact of infrastructure development and increasing vehicles traffic under CPEC on environment and ecotourism in Gilgit-Baltistan. Along with the unplanned tourism infrastructure building, infrastructure development (roads and railways) and increased traffic under CPEC will destroy the natural scenic beauty of the area and generate serious environmental problems. The following excerpt nicely represent general environmental concerns in relation to CPEC:

> *We must think about Ecotourism in Gilgit-Baltistan and focus on biodiversity as its raw material. CPEC must be investigated with regard to its impacts on the ecotourism sites, otherwise it would be a disaster for the ecotourism industry of Gilgit-Baltistan. Unique biodiversity pockets along the route have their own significance* [thereby need protection]. (A Representative of PATO)

Discussion: Making Stakeholder Visible in Policy Processes

For planners and managers to decide who and what really counts (as stakeholder and stake) is an intricate task as broader definition may effectively include almost everyone and everything as stakeholder and at stake (Mitchell et al., 1997). To ease out the burden of policymakers and managers, tourism scholars generally agree that sustainable and community centered planning and promotion of tourism requires cooperation among key stakeholders who may vary in terms of their salience (Getz and Jamal, 1994; Caffyn and Jobbins, 2003; Beritelli and Laesser, 2011). For tourism development, as envisaged under CPEC, this seems to be partially true. Most prominent and powerful stakeholders all represent state and quasi-state agencies whereas for all other stakeholders only token representation can be observed now. One must not forget that stakeholders' salience to policymakers and managers is a function of their power, legitimacy, and urgency (Mitchell et al., 1997). Memon and Thapa (2016) clearly show that not only private person and communities, but the government entities also compete each other for funds, authorities, and jurisdiction. Evidence from stakeholder research in tourism elsewhere indicate that managers and policymakers do realize the salience of different stakeholders (such as residents) in their decision making but tend to avoid their deeper engagement whenever possible (Garrod et al., 2012).

It is necessary to understand that neither the roles and salience of stakeholders nor their interrelations are permanent and fixed in time and space and may change in response to major events or over time (Todd et al., 2017). Depending on the policy response to these events, stakeholder status may change in the eyes of the decision-maker (Mitchell et al., 1997; Magness, 2007). Our findings corroborate the findings of Xue and Mason (2011) and show that in the context of mega projects like CPEC one may expect major changes in social, physical, and insti-

tutional infrastructures. Furthermore, the salience of any stakeholder may vary with reference to the task in hand. For example, ecotourism development may demand steering role of the environmental stakeholders; whereas the rural- or agro-tourism development may require farmers and rural communities to take over the lead. Thus, the success or failure of any tourism development policy or initiative may be explained by the policymakers' judgmental accuracy of stakeholders' salience against any task in hand.

Modern tourism, is essentially an assembly process, combining the knowledge, attitudes and other capacities of airlines, local transports, hotels, guides, destination managers, security providers and many other actors, to create the value of a place (Bramwell and Lane, 1999). Tourism products today are more complex than ever before, and their taxonomy may include dozens of product families and hundreds of product classes (McKercher, 2016). Given the fragmented nature of these tasks and diversity of products, rarely a single actor, public or private, can control and operate the tourism industry, and successful tourism is almost always a collaborative effort. Successful tourism planners consider consumer and stakeholder relationships as the core of their planning for place brand; and value behaviors more than communications and reality more than image (Hankinson, 2004). They increasingly view ethics and value creation as an integrated whole, deemphasize conventional idea of knowing stakeholder roles, and strive on building relationships between stakeholders as real people with names and faces (McVea, 2005; Sheehan and Ritchie, 2005). In case of tourism development under CPEC, it appears that many public and private stakeholders are ill-informed about possible and actual developments likely to occur in the tourism industry of GB and elsewhere in the country. They are also unaware of the global trends and traits in contemporary tourism industry. They still see tourism merely as a leisure and adventure activity and thus act in ignorance of new ideas already in currency elsewhere in the world.

The CPEC initiative is also likely to bring multidimensional change in the interests and relationships of stakeholders which requires an appropriate policy response to ensure that earlier stakeholders have not lagged, and the project is inclusive. This is very clear from the apprehension of stakeholders who feel that if not protected, Chinese investors and imported labor may get undue benefit out of their natural and cultural endowment. Studies such as Waligo et al. (2013) suggest that this would be difficult without formally managing stakeholder adaptability to newly arriving opportunities, and by making their knowledge, attitudes, and other capacities relevant. Doing so without engaging existing local stakeholders in tourism planning may deteriorate their livelihoods and create a sense of frustration and isolation and have detrimental implications for the nation-building project. In fact, clearly these sorts of concerns are emerging in GB where many of the hopes from tourism are turning into concerns such as over the way the local security situation is handled, the way infrastructure is planned, and the way local scenic beauty is ignored in infrastructure development. Many of these concerns may lack sound footing due to poor access to information however they may effectively frustrate masses which is certainly not a desired social objective.

Conclusion and Way Forward

This research basically tried to identify who is stakeholder, who currently control

policy and practice of tourism development and what they perceive on different dimension of tourism development under CPEC. For identification of stakeholder and analysis of their salience Mitchell et al. (1997) heuristic, popularly known as 'Stakeholder Salience' was used. The stakeholders' perceptions on various dimension of tourism development under CPEC was thematically analyzed using conventional coding and retrieval method. Information needs to carryout both set of analyses came through in-depth interviews with key stakeholders. Findings suggest that current policy and practice is dominated by state actors with very small room for non-state entities such as NGOs, local actors, and communities. CPEC externalities may positively impact tourism development due to infrastructure connectivity but is extremely hampered by the way security set up has been planned.

Furthermore, given the lack of information available on various aspects of CPEC including the negotiations on investment in tourism with Chinese investors, low local capacity to adopt emerging global trends in tourism and respond to the market demand may exclude various small investors and communities from the tourism landscape of GB. It is feared that if nothing is done to enhance the local capacity through training, information dissemination and meaningful participation of the non-state stakeholder, the Chinese investors may take over the industry to the disadvantage of locals.

However, it should be noted that our study has provided a baseline condition of stakeholder salience. Stakeholder analysis needs not to be only general and industry specific. It should be done for each of the major component and sub-component of tourism planning and development as one may expect that stakeholder arrangement would be quite different considering the task in hand. It is also the objective in mind that drives the kind of strategies to handle stakeholders. If the idea is to do people centric development, extraordinary measures to promote local stakeholders would be needed to upscale them from one rung to the next on the ladder of stakeholders' participation. The real and more people-centric development question on CPEC led tourism development would be that where you want to go and whom policymakers want to count more.

The study findings will have useful policy implication for a socially acceptable development of local and national tourism industry. It has provided the first-hand account of Pakistani stakeholders' vision of tourism under CPEC initiative. Policymakers in both countries, Chinese and Pakistani investors and tourism developers, local entrepreneurs, PTDC, local and international NGOs may benefit from these findings and May workout practical ways to meaningfully engage local stakeholders. In the next step we will carry out stakeholder analysis with reference to different types of tourism development (such as agro-tourism, eco-tourism, cultural-tourism, and religious tourism). We also aim to extend stakeholder analysis with reference to infrastructural, institutional, and social dimensions of tourism development to highlight the stakeholder that may take better lead in that situation.

Suggested Citation

Ali, W., Memon, J.A. (2023). Pakistani Stakeholder's Vision of Tourism Development under China-Pakistan Economic Corridor Initiative. In *Silk Route Revisited: Essays and Perspectives on the China-Pakistan Economic Corridor and Beyond* (pp.19-33). CSC-KIU.

References

Ahmed, S.A., 2016. China keen to invest in tourism sector, The News (Business), Islamabad.

Arnstein, S.R., 1969. A Ladder of Citizen Participation. Journal of the American Institute of Planners 35, 216-224.

Beritelli, P., Laesser, C., 2011. Power dimensions and influence reputation in tourist destinations: Empirical evidence from a network of actors and stakeholders. Tourism Management 32, 1299-1309.

Bramwell, B., Lane, B., 1999. Editorial. Journal of Sustainable Tourism 7, 179-181.

Caffyn, A., Jobbins, G., 2003. Governance Capacity and Stakeholder Interactions in the Development and Management of Coastal Tourism: Examples from Morocco and Tunisia. Journal of Sustainable Tourism 11, 224-245.

Daily Times Staff Report, 2017. Pakistan's tourism industry on the rise with CPEC, Daily Times, Karachi.

Garrod, B., Fyall, A., Leask, A., Reid, E., 2012. Engaging residents as stakeholders of the visitor attraction. Tourism Management 33, 1159-1173.

Getz, D., Jamal, T.B., 1994. The environment-community symbiosis: A case for collaborative tourism planning. Journal of Sustainable Tourism 2, 152-173.

Hankinson, G., 2004. Relational network brands: Towards a conceptual model of place brands. Journal of Vacation Marketing 10, 109-121.

Jamal, N., 2017. The cost of CPEC, DAWN. DAWN Group, Islamabad.

Magness, V., 2007. Who are the Stakeholders Now? An Empirical Examination of the Mitchell, Agle, and Wood Theory of Stakeholder Salience. Journal of Business Ethics 83, 177-192.

McKercher, B., 2016. Towards a taxonomy of tourism products. Tourism Management 54, 196-208.

McVea, J.F., 2005. A Names-and-Faces Approach to Stakeholder Management: How Focusing on Stakeholders as Individuals Can Bring Ethics and Entrepreneurial Strategy Together. Journal of Management Inquiry 14, 57-69.

Memon, J. A., & Thapa, G. B. (2016). Explaining the de facto open access of public property commons: Insights from the Indus Delta mangroves. Environmental Science & Policy, 66, 151-159.

Mitchell, R.K., Agle, B.R., Wood, D.J., 1997. Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts. Academy of management review 22, 853-886.

Sheehan, L.R., Ritchie, J.R.B., 2005. Destination Stakeholders Exploring Identity and Salience. Annals of Tourism Research 32, 711-734.

The Brand USA, 2014. China tourism market update, Discover America.

Todd, L., Leask, A., Ensor, J., 2017. Understanding primary stakeholders' multiple roles in hallmark event tourism management. Tourism Management 59, 494-509.

UNWTO, 2016. Tourism Highlights, 2016 ed. World Tourism Organization, Madrid, Spain.

UNWTO, 2017. World Tourism Barometer (March, Vol. 15). World Tourism Organization, Madrid, Spain.

UNWTO/GTERC, 2016. Asia Tourism Trends (Executive Summary), Madrid, Spain.

Waligo, V.M., Clarke, J., Hawkins, R., 2013. Implementing sustainable tourism: A multi-stakeholder involvement management framework. Tourism Management 36, 342-353.

Xue, H., Mason, D.S., 2011. The Changing Stakeholder Map of Formula One Grand Prix in Shanghai. European Sport Management Quarterly 11, 371-395.

3

Poverty Alleviation & CPEC: As the Nexus of Transformative Blue Economy

Urooj Aijaz
https://orcid.org/0000-0002-3414-4745
Department of Humanities & Social Sciences, Bahria University Karachi Campus

Hassan Daud Butt
https://orcid.org/ 0009-0007-8706-5948
Department of Humanities & Social Sciences, Bahria University Karachi Campus

Introduction

The phrase "blue economy" denotes the economics of using, protecting, and regenerating the marine environment. Organizations view it differently depending on its context. However, when referring to a sustainable development strategy for coastal resources, the phrase is typically employed in the context of international development (Farmery et al., 2021). This can encompass an extensive array of economic activities, from further established ones like coastal, marine, and maritime tourism, fisheries, aquaculture, maritime transportation, and other traditional uses to more recent ones like bio-prospecting, seabed mining, marine ecosystem services, and renewable energy for the coast (Choudhary et al., 2021).

According to the World Bank, the blue economy is "the sustainable use of ocean resources for economic growth, improved lives, and jobs while protecting the health of the ocean environment" (Bank, 2022). Moreover, the European Commission includes "every economic activity involving all the oceans, seas, and coastlines. It includes many interconnected existing and growing sectors (Heidkamp, Morrissey, Germond-Duret, & Rourke, 2022). The Blue Economy "comprises a variety of economic sectors and related policies that collectively decide whether the use of ocean resources is sustainable," according to a spokesperson of the United Nations (Hazra & Bhukta, 2022). A fundamental challenge for the blue economy is comprehending and efficiently managing the many dimensions of marine sustainability, including sustainable fisheries, ecosystem health, and pollution control (Ayilu, Fabinyi, & Barclay, 2022).

Moreover, the blue economy forces us to acknowledge that international cooperation across sectors and boundaries and new collaborations are required for the ecological sustainability of marine resources. This is a challenging task, particularly for Least Developed Countries (LDCs) and Small Island Developing States (SIDS), which have many restrictions (Lyons, Mynott, & Melbourne-Thomas, 2023). The UN claims that the Blue Economy will assist the globe in achieving its Sustainable Development Goals, one of which is to enhance "life below water."

The World Wildlife Fund gives two definitions of this phrase at the beginning of its report, "Principles for a Sustainable blue economy." Some define the blue economy as using the ocean and the assets for long-term fiscal growth. Other researchers use the term to describe any maritime-related economic activity, sustainable or not (Setiyowati, Nugroho, & Halik, 2022).

Despite the rising high-level use of the phrase, The WWF highlights in the purpose of the study that there is presently no widely accepted definition of the phrase "blue economy" as a concept and as a goal of policy-making and investment (van de Water, Tignat-Perrier, Allemand, & Ferrier-Pagès, 2022). The World Bank lists three obstacles limiting the possibility for a blue economy to emerge. Current economic trends are quickly depleting ocean resources. The underinvestment is in human capital necessary for occupation and growth in cutting-edge blue economy regions is insufficient protection of ocean ecosystem services and marine resources (Novaglio et al., 2022).

Pakistan is a developing nation with a low income. Purchasing power parity (PPP) ranks its economy as the 23rd largest in the world. The country's population is estimated to be 231 million as of 2022 (the 5th-largest worldwide) (A. Khan, Ilmas, Zubair, Khan, & Zhong, 2022). Pakistan's nominal GDP was US$376 billion as of FY22, ranking 177 globally in terms of nominal GDP per person, while its GDP, which is predominantly based on PPP, that is, purchasing power parity, was US$1.512 trillion, with GDP per person of US$6662 (i.e., 168th worldwide) (Naqvi, Khan, & ud Din, 2022). Pakistan's economy is still emerging and is only moderately industrialized. Primary exports include textiles, leather goods, sporting goods, chemicals, carpets, and rugs (Ishfaq, Kouser, & Jepson, 2022).

The large metropolitan centers in Punjab and Karachi, which have diverse economies, are Pakistan's economic development centers. These places coexist alongside poorly industrialized regions in other regions of the country. Past internal governmental unrest, a quickly escalating populace, and varying levels of international investment have all harmed Pakistan's economy (Subhan, Khurshid, & Shah, 2022). While regular worker remittances assist in keeping foreign exchange reserves up, a growing current account deficit—caused by an increasing trade imbalance as import expansion outperforms export expansion—could eventually drain resources and hinder GDP growth. Pakistan is now undergoing a phase of financial progress involving privatizing all government-owned firms to attract foreign investment and decrease budget deficits (NANDY, 2022).

Future growth rates in Pakistan are expected to reach only 2% in the fiscal year 2022-2023, running through June 2023, one of the lowest in South Asia. The economic situation could be better with the most corrupt and incompetent federal government currently heading the nation (Rasheed, Hamid, Talha, & Ibrahim, 2022). World Bank reported that Pakistan's poverty rate has reduced from 64.3% in 2001 to 21.9% in 2018. In addition, Pakistan's debt outlook was elevated by Moody's to "stable" as a result of the nation's improved macroeconomic situa-

tion. Moody's downgraded it to Caa1 outlook negative in April 2022 following the change of administration et al. Pakistan's GDP surpassed USD 1 trillion in 2017. The current account deficit is one of the issues the nation's economy deals with due to the increased costs of imported goods. By May 2019, the Pakistani rupee's value relative to the US dollar had declined by 30% yearly. With new billion-dollar deals, the second Phase of the CPEC began in 2020 (M. T. Khan, Anwar, & Husnain, 2021). Experts and Trading Economics' global macro models forecast that Pakistan's GDP will reach 350.00 USD billion by the end of 2022. According to our econometric models, Pakistan's GDP will have a positive trend of around $300 billion in 2023 and $310 billion in 2024 (S. H. Khan, 2023).

The Blue Economy of Pakistan

Marine transport makes up a large portion of Pakistan's blue economy. Pakistan receives more than Rs20 billion annually through the government-run Karachi Port Trust and Port Qasim Authority. If we can connect our ports with the land-locked Central Asian States, this may be significantly enlarged (Tagar, Shaikh, Tagar, & Bijarni, 2021). Due to its closeness to Malacca and Suez Canal—two extremely active maritime channels—Gwadar also has the potential to serve as a center for transshipment, ship repair, and shipbuilding. It is also close to one of the busiest maritime channels in the world. Baluchistan is lucky to have a coast-line with deep indentations (Muhammad, Brohi, & Ullah, 2021). Despite this, Pakistan possesses an Exclusive Economic Zone (EEZ) of 240,000 sq. km, which UNCLOS expanded by an additional 50,000 square kilometers in 2015 (Samad & Abbasi, 2022). The potential for fishing and farming in this region is consid-erable. Despite this, Pakistan may be able to adapt to climate change and global warming with the aid of blue carbon. Baluchistan can act as a gateway for mar-itime goods because of its crucial strategic relevance. Fisheries and aquaculture are the cornerstones of the blue economy since they not only support individuals who live by the coast but also promote economic development (Baig & Zehra, 2020; Syed & Safdar, 2021).

There are many different fish species in Pakistan; 529 species have been found, of which 230 are freshwater fish, and the other 296 are marine fish (Muhammad et al., 2021). Unfortunately, there has not been any significant government attempt to use the potential of the blue economy. Now that CPEC is in place, it is up to the present administration to ensure that this project is used to its full potential and that our blue economy expands; expanding the Gwadar port will guarantee the growth of the marine sector. Energy consumption, which is presently very low globally and significantly lower in developing countries due to increased prices and limited supply conditioned by dollar value and geopolitical difficulties, is closely related to eradicating poverty and meeting a person's basic requirements (Cooray, Premarathna, Atapaththu, & Priyadarshana, 2022).

Pakistan's maritime potential is immense but has yet to be completely realized. The nation should switch from a conventional old economy to a new blue econo-

my to accommodate our population growth and global trends. The blue economy can be used entirely, and our maritime industry can grow thanks to CPEC. Economic analysts think this industry may generate more than a million employment opportunities in Pakistan if the blue resources are used well. Since 95% of Pakistan's trade occurs on the sea, the maritime sector is one of the primary drivers of the national economy and military might. The open sea provides the potential for unrestricted, unfettered trade and access to all nations (M. R. Khan, 2021).

It is time for Pakistan to implement comprehensive and practical measures to raise marine awareness throughout the country. It must eventually turn toward the sea to harvest its resources and satisfy future needs (H. Y. Malik, 2021). Pakistan, a growing nation, must give the marine industry more attention to reap appropriate economic rewards. Ports, harbors, commercial ships, and their infrastructure are all part of maritime power, including maritime defense (Aijaz & Butt, 2021). The CPEC project demonstrates that the interested parties appreciate and utilize the marine area as a potential resource. The main goals of CPEC are to advance regional integration, Pakistan's economic growth, and China's hegemonic position in the seas (Aijaz, Hassan, Butt, & Ghauri, 2021).

Elements of the Blue Economy of Pakistan

Fisheries

According to estimates, Pakistan's fish and seafood business is worth $1.2 billion. The value of exports alone is roughly US$ 240 million annually. 41 The industry contributes about 1% of GDP. An estimated 1.5 million people are employed in the fishing industry, with more than half of the workforce in Sindh and Baluchistan's coastal regions (Muhammad et al., 2021). The nation's fishing fleet consists of 14,000 big and small boats. Pakistan is rated 28th in the world for fish output. Pakistan has a total fish harvest of roughly 600,000 tons, of which 400,000 come from marine fisheries (Faran & Ejaz, 2022). However, just ten percent of the produce is distributed outside the country. Whereas around sixty percent is used to make fish food, the remaining 30% is used by locals (Samad & Abbasi, 2022). The first challenge to the seafood business comes from irresponsible and unsafe fishing methods, which might lower the resource bases and, in turn, the production. However, the other is from inadequate quality control, which results in much wastage and underutilization of the catch (Syed & Safdar, 2021). The biggest problems impeding quality control are post-harvest handling and waste fish. Fish reproduction suffers a terrible loss due to using prohibited nets and fishing during the off-season (Gill & Iqbal, 2021).

Furthermore, the catch 48 created from harmful fishing techniques is merely a plunder of marine resources. It is a severe problem that jeopardizes the environment and the existence of threatened species. These unethical fishing methods result from the lack of knowledge among the fishing community, an inadequate regulatory system, and a weak enforcement apparatus (Cazcarro, Arto, Fer-

nandes-Salvador, & Lauriad, 2022). Additionally, illegal fishing and the smuggling of catch are seriously depleting our marine resources. Valuable fish species are smuggled out of Pakistan daily in amounts close to 200 tons. All these problems can only be resolved by enforcing regulations with solid control and oversight (Faran & Ejaz, 2022).

The greatest obstacle to the administrative control of fisheries is a need for coordination among the numerous parties. For over 20 years, Pakistan has had considerable export growth in fish products. Natural advantages stemming directly from the Arabian Sea's enormous capacity for fish production have helped this success (Syed & Safdar, 2021). Comparing Pakistan to nations like Indonesia and Thailand, which depend on aquaculture and may weaken Pakistani prices by more than 20%, reveals that Pakistan does not qualify as a low-cost manufacturer. The high price can be attributed to the high fuel costs associated with fishing and the need for a thorough stock assessment and current survey (Muhammad et al., 2021).

Maritime Tourism

The most significant market category worldwide is tourism, which also expands quickly. The tourist industry generates five percent of the global GDP and six to seven percent of jobs worldwide. In roughly 150 countries worldwide, it ranks among the top five revenue-generating industries (Faran & Ejaz, 2022). For half of the developing countries, it serves as their primary source of foreign exchange. Worldwide trends over the next 20 years indicate this business's substantial expansion. However, Pakistan's marine and coastal tourism prospects must be thoroughly assessed (Muhammad et al., 2021(Baig et al., 2020)). It is solely available to the local population, and neither the governmental nor corporate sectors have considered it a possible income source. The development of coastal tourism can help the local economy and lessen poverty. The sea cruise business and sustainable coastal tourism both require the backing of the private sector (Tagar et al., 2021).

In addition to the potential and obstacles described in each area of Pakistan's marine economic sector, several new difficulties tend to affect maritime expansion and countries' commercial policies. "Unless the seas and oceans constitute a crucial component of these urgently required reforms, a worldwide transition to a low-carbon, resource-efficient Green Economy would not be conceivable" (Syed & Safdar, 2021). Unrestrained pollution, climate change, ocean acidification, frequent and severe natural catastrophes, sea level rise, etc., are all increasing the environmental challenges to the Arabian Sea and coastal ecology. These might also affect our marine and coastal infrastructure. Furthermore, ocean waste disposal depletes marine resources and jeopardizes Pakistan's ability to produce seafood. The marine sector must abide by laws and international treaties governing "Eco-friendly" activities (Samad & Abbasi, 2022).

The blue economy of Pakistan also benefits from the country's maritime and ocean travel industry. In Pakistan, there is much to learn about coastal tourism, which contributes around 5% of the country's GDP. Kund Malir, a newly found desert beach, rapidly attracted the attention of the entire globe due to its mesmerizing beauty (Yasmeen, Aftab, & Muhammad, 2021). Due to seaside tourism, foreign tourists were compelled to visit and experience Pakistan. Regarding this, Eva Zu Beck and several other international travel vloggers visited, investigated, and showed a favorable aspect of Pakistan (Aijaz et al., 2021). This helped Pakistan's tourist industry indirectly.

The world today recognizes Pakistan as a secure nation. Pakistan now has more than ten beach locations that have been identified. There are several stunning terrain features around Pakistan's beaches (Gul & Shah, 2021). If the government properly develops the locations, it might bring in more than $4 billion for the economy. Beautiful beaches may be found throughout Pakistan's coastline. A framework has been established by public and private organizations for the activities of the blue economy, and it consists of words and policies (M. Islam & Sarker, 2022).

Maritime Transport

With a 40% cargo handling rate, Port Qasim is Pakistan's second busiest port. It is 35 kilometers east of Karachi on a section of the Indus River called Phitti Creek. 23 The port is approached through a 45 km long navigation channel. Its closeness with many national transportation infrastructures is one of its critical assets (Alam, Li, & Baig, 2019; Muhammad et al., 2021). The international airport is 22 km distant, the national highway is 15 km away, and six lines connect it immediately to the train system (Alam, Li, Baig, Ghanem, & Hanif, 2021; Gul & Shah, 2021). Most jetties and terminals for liquid and solid commodities at Port Qasim are privately owned. Two private container terminals are also present. Port Qasim is also home to Pakistan's sole private oil terminal, FOTCO, and its second private oil terminal is currently being constructed (Ghanem et al., 2021; Yasmeen et al., 2021). Each year, more than 1100 ships stop in Port Qasim. During the fiscal year 2010–2011, Port Qasim controlled approximately 26 million tons of cargo. In the fiscal year 2012–2013 (H. Y. Malik, 2021).

Throughout July-March 2011-12, container traffic increased by 6% over the first nine months of 2012–13.25. Port Qasim (Subhani) throughput is anticipated to increase to 26.6 million tons and container transportation to more than 800,000 TEUs in 2013–14. The current PQA capacity will be upgraded to accommodate ships weighing more than 75,000 tons to fulfill future demands (Gul & Shah, 2021). Additionally, the government intends to construct three secretly owned LNG terminals. A "Textile City" is also being built in PQA's eastern industrial zone to increase textile product manufacturing and export. The project is anticipated to be operational soon (X. Li et al., 2018; Syed & Safdar, 2021).

Offshore Renewable Energy

The term "offshore renewable energy" describes the production of electricity from resources found in the ocean. These include Great Lakes, ocean-based wind farms, and marine-based energy sources such as waves, tides, saltiness, and thermal properties (Fjellstedt et al., 2022). Global trends indicate that the marine sector's contribution will rise along with population growth, land-based economic activity, and new business prospects like renewable energy (Trifonova, Scott, Griffin, Pennock, & Jeffrey, 2022). Pakistan has enormous potential to tap into the blue economy by fostering renewable energy, marine transportation, and tourism because of its coastal regions. Pakistan has to take notes from the nations that have advanced in the blue economy (Z. Ullah et al., 2021).

Offshore wind farms are positioned underwater. The principles of offshore wind are the same as those of terrestrial wind technologies, but because of the more robust and reliable winds at sea, large-scale wind turbines must be installed by ships. Placing a structure in a fluid ocean environment is challenging (da Silva, Sergiienko, Cazzolato, & Ding, 2022). Offshore wind turbines offer comparable advantages to onshore wind turbines in that they produce no carbon emissions during their lifespan and are thus free of charge compared to other energy-generating technologies like conventional power sources (Nezhad et al., 2021). Freshwater is not necessary for wind energy (Y.-C. Chang, 2021). Therefore, Pakistan must conduct proper research in this field and, inst,sta rt utilizing offshore renewable energy resources as soon as possible.

Aquaculture

Even though aquaculture is a relatively new and developing industry in Pakistan, there is enormous potential for growth in this area. Despite abundant fresh, brackish, and marine water resources, only a little carp culture is carried out in inland waterways (Zahra, Shah, & Badeeb, 2022). Carp are raised in clay ponds utilizing largely intensive farming techniques and relatively minimal inputs. Pakistan has many fish species, although only seven warm-water and two cold-water species are raised commercially. Shrimp culture trials have been attempted in the Indus Delta region but were unsuccessful due to a lack of hatchery-produced seed (Tagar et al., 2021). Aquaculture in Pakistan started as a small-scale side business for crop farmers. However, with the establishment of public fish hatcheries, there has been a shift toward larger fish farms, especially among business people in this industry (Muhammad et al., 2021).

It is a sizable industry that might boost the GDP of the country. Additionally, it offers food and other necessities for survival. The seafood sector in Pakistan is valued at more than $1 billion. Regarding fish industry goods, Pakistan is ranked 28th globally (Muhammad et al., 2021). The marine food sector in Pakistan may employ more than 10,000 people and makes up around 1% of the country's GDP. Fish are captured for a total of about 600,000 tons. In addition to the nation's

share, this fish might be exported. Fish exports have been quite profitable for Pakistan (Yasmeen et al., 2021). However, some 200 unique fish kinds are smuggled daily due to poor administration and oversight. Despite this, Baluchistan have fish farms. As was previously said, Pakistan has enormous resources in various coastal areas, but poor management and care have caused it to collapse (Samad & Abbasi, 2022). Pakistan's fish and seafood exports are now only worth $450 million, but hey might reach $2 to 2.5 billion with the right proper-sea fishing regulations. Fish is acquired in Pakistan at a meager price of $2.27 to $2.50 per kg but costs $7 per kg in other areas due to a lack of facilities, a poor transportation infrastructure, and low export quality (Sarwar & Iqbal, 2022).

The fishing industry employs about 1% of the country's labor force, making up 1% of the nation's GDP (Pirasteh-Anosheh, Parnian, Spasiano, Race, & Ashraf, 2021). In three of the four provinces of the nation, freshwater carp farming is the primary kind of aquaculture (Punjab, Sindh, and Pakhtunkhwa). Although trout farming has significant potential in Pakistan's northern highlands, there is currently relatively little done there due to the cooler climate (W. Khan et al., 2021). In Pakistan, fisheries are primarily the concern of the "Fisheries Development Commissioner" (FDC), which reports to the "Ministry of Food, Agriculture, and Livestock" (MINFAL). Aquaculture is mostly a local duty. The FDC headquarters oversees all policy-making, planning, and collaboration with regional fisheries administrations and other international and national organizations (Sarwar & Iqbal, 2022).

The main research organization in the nation, Pakistan Agricultural Research Council (PARC), answers to MINFAL. Basic fisheries research is also being conducted at a few national institutions. Aquaculture is a relatively new industry in Pakistan, and in many regions of the nation, it is still poorly managed, with regional variations in cultural customs (J. Shafi, K. N. Waheed, Z. S. Mirza, & M. Zafarullah, 2021). The institutional structure has been strengthened thanks to two projects supported by the "Asian Development Bank" (ADB), which have aided in the development of infrastructure, including the establishment of the aquaculture industry and young production, model farms, technological transfer, the improvement of extension services, and human resource development (J. Shafi, K. Waheed, Z. Mirza, & M. Zafarullah, 2021). Government funding for aquaculture has been significant throughout the years. Infrastructure in place can serve as the foundation for a significant increase in aquaculture output. Almost all aquaculture in Pakistan is a pond culture of numerous fish species, excluding trout in Pakhtunkhwa and the northern area (M Bilal et al., 2021). Despite the 1100 km of coastline of Pakistan, coastal aquaculture activities still need to be started there. The primary obstacles to starting shrimp farming along the Sindh coast were the absence of hatchery-produced seed and a lack of knowledge. Previous attempts to do so failed (Sughra et al., 2022).

Seabed Extractive Activities

We have recently seen the Pakistani government's desire to drill and obtain oil from the seabed to strengthen Pakistan's economy. A few precautions should be taken to prevent damaging the marine ecosystem, which might lead to losing our fisheries resources (Sujadmiko & Meidiantama, 2022). According to several scientific studies, seismic surveys, drilling, the positioning of petroleum platforms, and continuing oil and gas operations at sea affect the local fisheries. Some of the effects of oil and gas marine operations on fish have been recognized, per the FAO's Seabed mining, fisheries, oil, gas, and integrated ocean management (Lepage, Capderrey, Elliott, & Meire, 2022).

The sea floor will be disturbed by deep-sea mining, and many people are worried about how the ecosystems will need to recover. However, technology solutions are being developed expressly to guarantee little impact. One of the main goals of the laws is to guarantee that a base environmental study is carried out so that license holders may be examined for their effects during and after the project's decommissioning phase. Commercial deep-sea mining is becoming a reality (Selwyn, 2022). After extensive debate and stakeholder feedback, the International Seabed Authority is almost ready to release its final exploitation regulations. These are long overdue and will allow several businesses and nations to begin industrial production from the seabed (Iqbal et al., 2022).

Marine Biotechnology and Bioprospecting

The application of biotechnology, molecular and cell biology, and bioinformatics in producing products and processes from marine organisms is known as marine biotechnology. Ocean exploration is a field of study that focuses on developing new chemicals, enzymes, medicines, and other products and processes (Pereira, 2022). It addresses a variety of subjects, including the advancement of aquaculture, the safety of seafood, bioremediation, and biofuels. Marine biotechnology may discover new uses for biological molecules and new knowledge. Exploring and using marine resources may lead to discovering brand-new applications outside the maritime environment (Schneider et al., 2022).

Utilizing the potential of the marine environment for human advantage and essential biological advancement requires biotechnological solutions. Aquaculture's challenges could be solved with the help of biotechnology (Pramanik, Das, & Ghosh, 2022). Unfortunately, Pakistan lacks experts and professionals who could utilize this technology and develop a better understanding and application for the growth rate, disease resistance, and reproduction of marine species (Aranganathan, 2022). More research must be done to realize the potential of marine bio-resources, mainly unexplored in Pakistan. These resources might be used to create novel goods and procedures and contribute to resolving the nation's problems with food, energy, and health (A. Khan et al., 2022).

Poverty: Pakistan's Most Significant Challenge

Poverty is one of the critical matters being addressed and argued in industrialized and developing nations, including Pakistan. It prevents economic and other social and economic developments brought on by social, economic, cultural, and other elements (Kousar & Shabbir, 2021). One of the most critical problems with economic growth is the disparity in living standards between nations. Poverty also makes people doubt the benefits of market- and development-oriented policies (Sharma, Gupta, Sharma, & Sharma, 2021).

According to the United Nations Development Program, hunger and a lack of food are caused mainly by poverty. 'The Food and Agriculture Organization of the United Nations" estimates that 963 million hungry people are globally, or about 15% of the total population (H. Saleem, Shabbir, Shah, & Shah, 2021). The United Nations Program claims that inequality has risen nationally and internationally. More than 80% of people reside in nations where economic disparities are getting wider (K. Mustafa, Nosheen, & Khan, 2021). Only 5% of the world's revenue goes to the bottom 40% of the population, while the wealthiest 20% of individuals receive 75% of it. The symptoms of poverty include lack of food, illiteracy, poor health care, limited educational resources, and unemployment (Kousar & Shabbir, 2021).

According to government statistics from September 2021, 22% of the country's population lives below the national poverty line set at Rest—3030 (about $13) per month. Preliminary estimates suggest that the national poverty rate may increase by 2.5 to 4 percentage points, placing around 5.8 and 9 million people in poverty without steadfast relief and recovery programs to help people experiencing poverty (K. Mustafa et al., 2021). Fifty-five million Pakistanis, or around 24.3% of the population, were estimated to live below the poverty line, according to a study presented to the "National Assembly of Pakistan" by the "Ministry of Planning and Development." As of 2020, Pakistan's Human Development Index (HDI) was 0.557, ranking 154th out of 189 countries. The HDI of Pakistan is among the lowest in Asia, right below Yemen and Afghanistan (Sharma et al., 2021).

Given that Pakistan is still growing and one of its main problems is poverty, it is essential to concentrate on this population group. Pakistan ranks sixth in the world in terms of population. If Pakistan concentrates on making the most use of its large population rather than neglecting it, this population will be a benefit rather than a burden for Pakistan (K. Mustafa et al., 2021).

Causes and Reasons for Poverty

Pakistan is a country in South Asia that shares borders with India to the east and Afghanistan to the west. The Indian subcontinent includes it. The population of Pakistan has not yet wholly profited from the country's economy's impressive growth rate. Numerous factors contribute to the high poverty rate and unbalanced income distribution. Here are multiple reasons for poverty in Pakistan to help

one better comprehend the wealth gap and the current state of poverty (Akbar, Naveed, & Syed, 2022).

Feudalism, unregulated inflation, pervasive corruption, a rapidly growing population, a dismal education system, poor natural resources management, the collapse of democracy, and other issues are the leading causes of poverty in Pakistan. Global variables like the global financial crisis, the rise in oil prices, the global food crisis, etc., have fueled the fire in addition to these national reasons (A. Ahmad & Awan, 2021).

"Poverty is like a punishment for a crime you did not commit." (Eli Khamarov)

The primary reasons for poverty in Pakistan are discussed below:

Population Growth

Pakistan has the world's most significant population growth rates1.86%. By 2050, the population will be close to 350 million. Multan, the division commissioner, asserts that the insufficient availability of family management is the main factor contributing to this rapid increase. A large population has exacerbated poverty, lack of jobs, and lawlessness (Chishti, Rehman, & Murshed, 2022).

Largely Illiterate Population

Pakistan's population is around 50% illiterate, and 7.26 million kids are not attending school because of poverty. Since Pakistan spends the least amount of its GDP on education among South Asian nations, it has the second-highest rate of out-of-school children worldwide, behind only Nigeria, according to research from the Institute of Social and Policy Sciences. According to the research, this lack of expenditure negatively impacts the nation's educational system (Shahnawaz, 2022). Consequently, Young people need to learn the skills necessary for employment with training and job cognitive domains. The need for mechanisms that address businesses' required skills hinders societal and economic progress. People who do not have enough education cannot get a job or get out of poverty (Bashir & Idrees, 2021).

Inequitable Taxes

Pakistan's tax structure provides terrible evidence of governmental corruption. Instead of distinguishing between different economic levels, the system gives the impoverished much attention. 80% of the tax money for items like energy, gas, and mobile communications comes from people with low-income people wealthiest pay less than 5% in taxes while this is happening. Four of every 10 Pakistanis lack access to food, shelter, healthcare, and education. The poor require enough resources in Pakistan to lift themselves out of poverty. Without improved healthcare, educational opportunities, and fair taxes for the impoverished, Pakistan's economic development and mobility cannot rise (K. Ahmad, Ali, Haider, Shahid,

& Naushahi, 2021).

Backwardness in Agriculture

The agricultural sector's backwardness affects approximately 66% of the population, and the low wages in rural regions is the leading cause of poverty in Pakistan. The cultivated land in Pakistan is spread unevenly, according to data from the agriculture census. Poor people lack access to sufficient and affordable fertilizer, pesticides, quality seeds, water, cutting-edge technology, and consulting services. Their income is smaller because they lack the resources to develop their property, and poverty is more prevalent in rural regions (Sikandar et al., 2022).

Inflation

Inflation, the most regressive tax on the fixed-income class, is the fourth cause of poverty. The salaried and fixed-income group is more negatively impacted by inflation than the business class (Rehman, Cismas, & Milin, 2022). Government pay is not adjusted to inflation, yet employees' expenses are rising since things are getting more expensive. Poverty is caused by insufficient income and savings (Suleman, Javed, & Amjad, 2022). Also, the country's manufacturing sector is quite outdated. Less than 20% of the national income goes to this sector, which is relatively low compared to wealthy nations. Because of industrial backwardness, Pakistan exports fewer goods and must import industrial and electrical goods frequently (A. Ahmad & Awan, 2021). The bulk of the foreign currency set aside is spent on industrial imports. The low standard of living and poverty are directly or indirectly linked to the backwardness of this industry (Bukhari, Cheema, & Shah, 2022).

Poor Governance

Poor governance is also one of the causes of poverty. A necessary and significant prerequisite for growth and development is good governance. Nevertheless, this situation is not the same in Pakistan. Fewer people can access the legal system and national decision-making (M. Hassan & Zeb, 2021). The public's confidence is harmed by corruption, political instability, a disrupted law-and-order situation, red tape, terrorism, bomb blasts, and system delays, among other things. As a result, people are less interested in various economic activities—low productivity results in widespread poverty (M. S. Hassan et al., 2021).

Poverty Alleviation and Economic Growth

Economic growth is the most efficient way to eradicate poverty and raise living standards in developing countries. Both cross-nation researches and regional case studies provide compelling evidence that rapid and sustained growth is necessary to accomplish all of the "Millennium Development Goals," not only the first goal of lowering the proportion of people worldwide living on less than $1 per day (Asare & Barfi, 2021). Growth may produce good income and opportunity

cycles. With promising development and job opportunities, parents are more inclined to invest in their kids' education by enrolling them in school (Roth, 2022). This might lead to the emergence of a solid and growing group of entrepreneurs, which would raise the stakes for improved governance. Thus, human development promotes rapid economic growth and expansion (Korankye, Wen, Appiah, & Antwi, 2021).

However, depending on the conditions, comparable growth rates can sometimes affect poverty, poor people's work prospects, and more general human development indicators (Megawati, Rahaju, Mahdiannur, & Kurniawan, 2021). The extent that growth reduces poverty depends on how much participation and benefit-sharing people experiencing poverty have in the economy. Therefore, the pace and growth pattern are crucial for reducing poverty (Asare & Barfi, 2021).

Essential elements that promote rapid and sustained economic growth must be included in any strategy for alleviating poverty. Policymakers face a conundrum when attempting to combine policies that promote growth with those that allow low-income people to fully participate in the opportunities offered and contribute to that growth (Jauhari & Periansya, 2021). This includes steps to increase financial inclusion, end gender inequality, and enhance labor market efficiency (Korankye et al., 2021).

Developing nations must resume a vigorous development trajectory. They also have a critical need to lower poverty. Recent findings from the study highlight the significance of average growth in lowering poverty. They also show how pro-poor policies may stimulate economic growth (Zain, Khalid, Nurudin, & Onimisi, 2021). How quickly growth reduces poverty depends on the initial income distribution and hits evolution. In countries with more unequal distributions, the same growth rate has a far lesser impact on poverty (Jauhari & Periansya, 2021).

In addition, poverty can hamper economic growth when market imperfections (market breakdowns, incomplete or uncompetitive markets) and strategic complementarities combine (Guo & Liu, 2022). Investment is necessary for both growth and avoiding poverty. The impoverished may need help investing due to the prevalence of indivisible and fixed expenditures since they lack the appropriate financial resources and are usually shut out of lending markets (Jun Zhao, Dong, Dong, & Shahbaz, 2022). Low-income levels are mostly to blame because low-income people cannot gather enough money to finance successful companies. When they seek to borrow money, the poor face yet another challenge: high-interest rates and hefty transaction fees that make borrowing money a losing business. According to a study of several microfinance organizations, nominal interest rates for financially stable institutions range from 30% to 50% (Zain et al., 2021).

In conclusion, economic expansion benefits the poor. Moreover, lowering poverty promotes economic expansion. Pro-growth initiatives and those aimed at

improving the poor's lives sometimes reinforce one another rather than competing routes. Economic progress may lessen poverty more effectively the more this complementarity is utilized. Furthermore, the potential for development and efficiency increases as more nations remove barriers that prevent people with low incomes from participating actively and constructively in society (Yuheng Li, Wu, & Wang, 2021).

Poverty Alleviation and the Blue Economy of Pakistan

Sustainable economic growth is currently encountering significant obstacles worldwide. States are turning to the seas and oceans to support their economic growth and national strength; this phenomenon is called the "Blue Economy" (Tagar et al., 2021). The seas and oceans are acknowledged as the primary forces behind economic growth, with significant room for innovation and expansion under the "blue economy" concept. The Blue Economy is the "sustainable use of ocean resources for economic growth, improved livelihoods, and jobs while preserving the health of the ocean ecosystem" (Gill & Iqbal, 2021).

With more than 1000 km of coastline in the Arabian Sea, 240,000 km^2 of the exclusive economic zone (EEZ), and 50,000 km2 of the continental shelf, Pakistan has a huge maritime exploration space (Muhammad et al., 2021). This includes but is not limited to, the exploration of marine oil, gas, and mineral reserves, seabed, and sub-aerial soil mineral, marine ,and coastal tourism, the seafaring community, the coastal economy, the development of port infrastructure to handle the nation's maritime trade, shipping, the shipbuilding and shipbreaking industries, and the fisheries industry (Syed & Safdar, 2021).

However, the sea is not on the national priorities list. A sizable population will live without ever laying eyes on the azure oceans surrounding Pakistan (Yasmeen et al., 2021). This means the nation suffers from a condition called sea blindness. Pakistan must consider how these blue waters can aid in accelerating economic growth and helping it to overcome the difficulties of developing as a maritime nation (Syed & Safdar, 2021).

According to estimates, between 15% and 70% of the household income of the poor originates from the exploitation of the environment, and subsistence income is more than that. Most coastal poor rely on artisanal fishing to provide them with their food, and they make money by selling the extra (Jabeen & Khan, 2022). The most popular fuel source is firewood; which people can conveniently harvest from the neighboring mangrove woods. The poor may receive fewer advantages due to the negative influence of these natural resources, which would leave them even more vulnerable, helpless, and excluded (Shahzad, 2021).

The primary factors that decrease the positive link between ecosystem services and poverty eradication are often overexploitation, pollution, habitat degradation, and a lack of management methods (Jabeen & Khan, 2022). However, there needs to be more information and foundational data to ascertain the link between

ecosystem services and poverty levels in Pakistan and globally. These limits projections of how resilient poverty levels will be to environmental change in the future (Tagar et al., 2021). If a resource cannot be accessed, it has no value. Natural resources become "natural assets" when held in ownership or other secure access methods. Poor people who lack access to natural assets cannot meet their food and other essentials demands and recover from market shocks and disasters (Ağırkaya, 2021). Because access is the foundation of creating sustainable livelihoods based on natural resources, it should be one of the primary resources for people with low incomes (M. W. Islam & Sarker, 2021). Most of the poor also frequently reside in environmentally fragile, low-productivity areas, restricting their access to natural resources. Climate change, caused mainly by human activity, makes marine ecosystems more susceptible, reducing prospects for the coastal poor (Ağırkaya, 2021).

China-Pakistan Economic Corridor (CPEC)

A 3000-kilometer initiative in Pakistan by China to build an infrastructure network is known as the China-Pakistan Economic Corridor (CPEC) (L. Ali et al., 2021). By avoiding the existing route from the Straits of Malacca between Malaysia and Indonesia, which in the event of war could be blocked and hinder the Chinese energy-dependent economic avenues, this sea-and-land-based corridor seeks to secure and reduce the passage for China's energy imports from the Middle Eastern countries (Maqsoom et al., 2022). A quick way to increase commerce between Europe and China would be to build a deep-water port at Gwadar in the Arabian Sea and a well-built road and rail network from this port to Xinjiang Province in western China (McCartney, 2022). The economic growth of the Xinjiang area is considered to address a national security concern for China by lessening militant influence on local Uyghur's who are Muslim separatists. The preliminary study on this project, which was completed in 2014 following the proposal from Chinese President Li Keqiang in 2013, acknowledged the hostile environment and challenging geographic conditions but placed a high priority on having a China-run port close to the Gulf of Oman, which is a crucial route for oil tankers (Rehman & Ali, 2021). Once this route is operational, the current 12,000-kilometer oil delivery path to China will only be 2,395 km long. On May 16, 2013, China took over the Gwadar Port's management. By 2020, the value of CPEC projects had increased to $62 billion from their initial $46 billion estimate. Chinese investment in Pakistan reached $65 billion in 2022 (Wu et al., 2021). China refers to this endeavor as the Silk Road's resurrection. By building cutting-edge transportation networks, various energy projects, and special economic zones, CPEC aims to quickly update Pakistan's necessary infrastructure while bolstering its economy (Mahmood, Ali, Menhas, & Sabir, 2022).

China and Pakistan inked 20 more agreements totaling $1.6 billion on August 12, 2015, in Karamay, expanding the size and breadth of the CPEC. The plan's specifics are unknown; however, it is claimed to primarily concentrate on boosting energy-producing capacity. Pakistan and China have committed to collaborate

in space research as part of the pact (Sarfraz Hussain, Rafiq, Quddus, Ahmad, & Pham, 2021). In November 2016, China announced a further $8.5 billion investment in Pakistan, of which $4.5 billion will be used to upgrade the tracks, speed, and signaling on the country's main railway line connecting Karachi and Peshawar, and $4 billion will go toward an LNG terminal and transmission lines to help Pakistan's energy shortages (Jianting Zhao, Sun, & Webster, 2022). The Egyptian ambassador to Pakistan indicated an interest in working with the CPEC in February 2017. Pervez Khattak, the Chief Minister of Khyber Pukhtunkhwa said in January 2017 that he had promises from Chinese investment firms that they would contribute up to $20 billion to projects. A contract was inked in March 2017 for the projects, which totaled $7 billion in hydroelectric projects, a $1.5 billion oil refinery, a $2 billion irrigation project, and a $2 billion road connecting Chitral and DI Khan et al.$14 billion worth of projects were being built in September 2017. Following the completion of currently under-construction energy projects, Pakistan declared in March 2018 that future CPEC energy projects would focus on hydroelectric projects (Muhammad Bilal et al., 2022).

Federal Minister for Planning, Development, and Special Initiatives, Ahsan Iqbal advocated for the dissolution of the CPEC authority in 2022 and lambasted it for failing to draw in investors. Prime Minister Shehbaz Sharif gave preliminary approval on August 17, 2022, to dissolve the China-Pakistan Economic Corridor (CPEC) Authority, subject to China's approval (Maqsoom et al., 2022).

CPEC and the Blue Economy of Pakistan

Oceans are the future, and there is no doubt that. The maritime industry is more than a sector; it is a parallel economy through which all other sectors pass. Pakistan is endowed with a huge oceanic region, yet uncharted. However, CPEC's launch and the expansion of Gwadar port have made it possible to achieve the ambition of leveraging the nation's blue economy for long-term prosperity (Muhammad et al., 2021).

It is a known truth that Pakistan's economy has struggled for a while. It must restructure the traditional economy while opening up new fronts of development and production to guide it away from the crisis (Khan, 2021). In this situation, CPEC acts as a womb for the development of Pakistan's blue economy and a lifeline for the country's conventional economy. CPEC, a multi-sectorial direct Chinese investment in Pakistan and not simply a single road project, has sparked growth in several economic sectors (H. Y. Malik, 2021). Pakistan's blue economy glows like gold behind these opulent Chinese investments. Exploring and using Pakistan's vast blue economy is made possible by CPEC (Aijaz & Butt, 2021). A strengthened marine connection between China and Pakistan under CPEC can provide sustained economic growth for Pakistan and the region and connectivity in the area. Pakistan has already chosen the route of blue development since it has ratified the Sustainable Development Goals (SDG-14) (Muhammad et al., 2021). However, Pakistan may benefit from China's marine development under

the auspices of CPEC, and it can also change its relationship with China by establishing a "Blue Partnership" with Beijing. With the construction of the Gwadar Port, which is seen as the beginning of China's Belt and Road Initiative, this partnership has already begun (Yasmeen et al., 2021). This is why Gwadar, a port, is built on contemporary principles and will have all modern conveniences. The only realistic alternative for Pakistan to assist its faltering economy is to look to the seas for sustained economic growth because of its geographic location and extensive maritime sovereignty (Sarfraz Hussain et al., 2021). Fortunately, the current government of Pakistan has proclaimed 2020 the year of the blue economy, aiming to use marine resources for the nation's development. This shows that the administration is aware of the significance of the blue economy idea. The nation's vision for 2025 includes this objective as well (Ikram, 2021).

Deep seaports like Gwadar have much potential for business, shipping, offshore exploration, tourism, aqua resorts, and deep-sea fishing (Khalid, 2022). According to Shahzeb Khan Kakar, Director General of the Gwadar Development Authority (CDA), the city of Gwadar will become the Singapore of Pakistan with a GDP of $30 billion by 2050 and the creation of 1.2 million employment for the people following the implementation of the master plan of the city under CPEC (H. Y. Malik, 2021). Therefore, the expansion of Gwadar and the success of CPEC would significantly boost Pakistan's blue economy. The expansion of Gwadar will open the door to several ancillary sectors, including tourism, hoteling, shipbuilding, shipbreaking, and shipyard construction.

Role of CPEC and Poverty Alleviation

There are several social, economic, and environmental problems in Pakistan right now. The main problems include poverty, poor education, infrastructure, security risks, and the worst circumstances for unemployment (Wolf, 2021). Officials from both nations claim that if the CPEC plans are successful, Pakistan can resolve its issues. On the other hand, China will increase its might, solidify its position internationally, and safeguard possible trade and energy lines (W. Ullah, Ni, Hussain, & Neelam, 2021). The CPEC is a multifaceted economic project to strengthen regional ties between China and Europe and between China and Pakistan. It includes manufacturing, industries, electricity, manufacturing networks, and other development activities (Shahzad, 2022). Chinese policymakers have focused on growing the economy, establishing new financial objectives, researching new international markets, and looking for investment possibilities. The Chinese government created the One Belt One Road (OBOR) megaprojects to achieve this. The CPEC, which is thought to be a game-changer for Pakistan's economy, is a part of this project (W. Ullah et al., 2021).

Due to population growth and abundant untapped natural resources, Pakistan's unemployment rate is dropping daily, contributing to poverty, hunger, and social exclusion. The CPEC may be a blessing in these challenging times for Pakistan and the region's long-term, inclusive economic prosperity (Nigar & Khetran,

2021). Previous research has shown that the CPEC projects benefit the local community and impact locals' opinions of the project's effectiveness by helping generate income and build local and regional economic zones that promote travel and tourism (I. Ullah, Zhang, Rehman, & Zeeshan, 2022).

The CPEC has expanded investment in various sectors, including oil and gas, transportation infrastructure, and energy challenges, contributing directly and indirectly to regional and local economic growth (Ibrar, Kakepoto, Manzoor, & Khan, 2022). Additionally, the CPEC will increase regional cooperation and commerce between the two nations and other South Asian nations. It is anticipated the people in China and Pakistan are expected toes to contribute to economic progress and eradicate poverty. CPEC will support growth in rural and urban Pakistan's corporate and non-business sectors. On the other side, enabling launch businesses or obtain employment will aid Pakistan's economic growth and raise public support for these projects. The dynamic shows the wide variety of starting or impacted parties, limits, and conditions that might be involved, as well as the high mobility of social risk in the mining sector (Nigar & Khetran, 2021).

According to previous research, Pakistan's local communities and the public would significantly increase job prospects due to the CPEC. The CPEC is a massive project that will create millions of jobs in various industries, so those who questioned if it would make it easier to find work were accurate (L. Ali et al., 2021). People think job possibilities, like those brought about by the CPEC, will reduce poverty. The CPEC can therefore be a reliable indicator to eradicate poverty (Arshed, Awan, Mirza, Riaz, & Shabeer, 2021). The community expects many employment vacancies, many of which will be well-paying positions that will help locals overcome poverty due to CPEC. In line with our findings, (Wolf, 2021) lists several CEPC advantages, such as job prospects, social assistance, and poverty reduction.

Conclusion

Finally, it may be argued that Pakistan is a maritime nation because God thus desired it to be. Karachi, the state's capital and largest metropolis is located on the seashore. Pakistan's marine potential is vast yet unrealized. We must transition from a brown economy to a "Blue Economy" due to the rise of our population and worldwide tendencies. This vision demands both credibility and knowledge. There are numerous obstacles, but with our combined efforts, we can overcome them. Sustainable growth and development will only be realized when the political elite strongly commit to this sector, even though Pakistan has begun to strive toward a blue economy. Pakistan must commit to financial and intellectual resources. It is necessary to address problems including inadequate infrastructure, excessive red tape, bureaucratic bottlenecks, regional instability, particularly the terrible law and order situation in Baluchistan, and a lack of cooperation and awareness amongst departments and essentials. It is important to implement comprehensive policies and coordinate all efforts, no matter how big or little, around

the idea of the blue economy.

Suggested Citation

Aijaz, U,. Butt, H.D. (2023). Poverty Alleviation & CPEC: As the Nexus of Transformative Blue Economy. In *Silk Route Revisited: Essays and Perspectives on the China-Pakistan Economic Corridor and Beyond* (pp.34-61). CSC-KIU.

References

Ağırkaya, M. B. (2021). The blue economy in the growth, development, green economy cycle: the waste issue. *Management and Finance Studies*, 181.

Ahmad, A., & Awan, A. G. (2021). Impact of taxation on poverty in Pakistan. *International Journal of Management, 12*(6).

Ahmad, K., Ali, S., Haider, A., Shahid, M., & Naushahi, M. M. (2021). Fiscal Implications for Rural-Urban Income Inequality: The Case of Pakistan. *International Journal of Economics & Business Administration (IJEBA), 9*(2), 246-259.

Aijaz, U., & Butt, H. D. (2021). Bolstering Sustainable Growth through Blue Economy. *Pakistan Journal of international Affairs, 4*(1).

Aijaz, U., Hassan, D., Butt, D., & Ghauri, S. (2021). Acute drivers and great barriers for successful blue growth in Pakistan: an investment perspective under CPEC. *Pakistan J Int Aff, 4*(3), 170-194.

Akbar, M., Naveed, A., & Syed, S. H. (2022). Does an Improvement in Rural Infrastructure Contribute to Alleviate Poverty in Pakistan? A Spatial Econometric Analysis. *Social Indicators Research, 162*(1), 475-499.

Alam, K. M., Li, X., & Baig, S. (2019). Impact of transport cost and travel time on trade under China-Pakistan economic corridor (CPEC). *Journal of Advanced Transportation, 2019*.

Alam, K. M., Li, X., Baig, S., Ghanem, O., & Hanif, S. (2021). Causality between transportation infrastructure and economic development in Pakistan: An ARDL analysis. *Research in Transportation Economics, 88*, 100974.

Ali, L., Khan, S., Shah, S. J., Ullah, A., Ashraf, H., Ahmad, M., . . . Araya-Castillo, L. (2021). Road and transportation lead to better health and sustainable destination development in host community: a case of China Pakistan Economic Corridor (CPEC). *International journal of environmental research and public health, 18*(23), 12832.

Aranganathan, M. (2022). Analytical techniques in marine biotechnology. *ScienceOpen Posters*.

Arshed, N., Awan, M. Z., Mirza, A., Riaz, F., & Shabeer, M. G. (2021). China Pakistan economic corridor (CPEC), its role in Pakistan economy and its social and environmental status. *Journal of Applied Research and Multidisciplinary Studies, 2*(2), 1-15.

Asare, P., & Barfi, R. (2021). The impact of Covid-19 pandemic on the Global economy: emphasis on poverty alleviation and economic growth. *Economics, 8*(1), 32-43.

Ayilu, R. K., Fabinyi, M., & Barclay, K. (2022). Small-scale fisheries in the blue economy: Review of scholarly papers and multilateral documents. *Ocean & Coastal Management, 216*, 105982.

Baig, S., Qasim, M., Xuemei, L., & Alam, K. M. (2020). Is the China-Pakistan economic corridor an opportunity or a threat for small and micro-entrepreneurs? Empirical evidence from Northern Pakistan. *Sustainability, 12*(5), 1727.

Baig, S., & Zehra, S. (2020). China-Pakistan economic corridor, governance, and tourism nexus: evidence from Gilgit-Baltistan, Pakistan. *Current Issues in Tourism, 23*(23), 2884-2889.

Bank, W. (2022). Gender Integration in the Blue Economy Portfolio: Review of Experiences and Future Opportunities.

Bashir, F., & Idrees, M. (2021). Correlates of Poverty in Pakistan: A Rural-Urban Comparative Analysis. *Forman Journal of Economic Studies, 17*(2).

Bashir, M. A., Dengfeng, Z., Amin, F., Mentel, G., Raza, S. A., & Bashir, M. F. (2023). Transition to greener electricity and resource use impact on environmental quality: Policy based study from OECD countries. *Utilities Policy, 81*, 101518.

Bilal, M., Abbas, F., Atique, U., Rehman, M., Inayat, M., Zohaib, M., . . . Tehreem, A. (2021). Lernaeid parasites prevalence in commercial freshwater fish species at various fish farms in Pakistan. *Brazilian Journal of Biology, 84*.

Bilal, M., Ali, M. K., Qazi, U., Hussain, S., Jahanzaib, M., & Wasim, A. (2022). A multifaceted evaluation of hybrid energy policies: The case of sustainable alternatives in special Economic Zones of the China Pakistan Economic Corridor (CPEC). *Sustainable Energy Technologies and Assessments, 52*, 101958.

Bukhari, S. J. R., Cheema, A. R., & Shah, S. Z. A. (2022). Literacy, Poverty and Trade Openness in Pakistan: An Empirical Investigation. *Journal of Accounting and Finance in Emerging Economies, 8*(1), 13-24.

Cazcarro, I., Arto, I., Fernandes-Salvador, J. A., & Lauriad, V. (2022). Potential Future Challenges and Impacts on Fisheries and Coastal Economies. In *The Blue Economy: An Asian Perspective* (pp. 265-287): Springer.

Chang, Y.-C. (2021). Legal Issues concerning Marine Spatial Planning-A Note. *China Oceans L. Rev.*, 12.

Chao, P., Biao, M., & Zhang, C. (2021). Poverty alleviation through e-commerce: Village involvement and demonstration policies in rural China. *Journal of Integrative Agriculture, 20*(4), 998-1011.

Chishti, M. Z., Rehman, A., & Murshed, M. (2022). An estimation of the macroeconomic determinants of income poverty in Pakistan? Evidence from a non-linear ARDL approach. *Journal of Public Affairs, 22*(4), e2719.

Choudhary, P., Khade, M., Savant, S., Musale, A., Chelliah, M. S., & Dasgupta, S. (2021). Empowering blue economy: From underrated ecosystem to sustainable industry. *Journal of environmental management, 291*, 112697.

Cooray, N. S., Premarathna, U., Atapaththu, K. S. S., & Priyadarshana, T. (2022). Development and Challenges of Indian Ocean Blue Economy and Opportunities for Sri Lanka. In *Global Blue Economy* (pp. 221-257): CRC Press.

da Silva, L., Sergiienko, N., Cazzolato, B., & Ding, B. (2022). Dynamics of hybrid offshore renewable energy platforms: Heaving point absorbers connected to a semi-submersible floating offshore wind turbine. *Renewable Energy, 199*, 1424-1439.

Faran, F., & Ejaz, K. (2022). Blue Economy of Maritime Nations in South Asia: Challenges and Prospects. *South Asian Studies, 37*(1).

Farmery, A. K., Allison, E. H., Andrew, N. L., Troell, M., Voyer, M., Campbell, B., . . . Steenbergen, D. (2021). Blind spots in visions of a "blue economy" could undermine the ocean's contribution to eliminating hunger and malnutrition. *One Earth, 4*(1), 28-38.

Fjellstedt, C., Ullah, M. I., Forslund, J., Jonasson, E., Temiz, I., & Thomas, K. (2022). A Review of AC and DC Collection Grids for Offshore Renewable Energy with a Qualitative Evaluation for Marine Energy Resources. *Energies, 15*(16), 5816.

Ghanem, O., Xuemei, L., Alam, K. M., & Baig, S. (2021). The effectiveness of freight costs on trade potentials between China and European Union, Middle East, North African countries under China-Pakistan Corridor. *International Journal of Shipping and Transport Logistics, 13*(3-4), 327-359.

Gill, S. A., & Iqbal, J. (2021). Exploring the Role of Blue Economy in Sustainable Development: A Perspective from Pakistan. *P-JMR, 3*(1), 141-192.

Gul, A., & Shah, V. A. R. K. A. (2021). Policy Insights to Maritime Economy in Pakistan. *The Pakistan Development Review*, 373-384.

Guo, Y., & Liu, Y. (2022). Sustainable poverty alleviation and green development in China's underdeveloped areas. *Journal of Geographical Sciences, 32*(1), 23-43.

Hassan, M., & Zeb, R. (2021). Analysing the Impact of Good Governance on Socio-Economic Development: A Case Study of Pakistan. *NUST Journal of Social Sciences and Humanities, 7*(1), 1-35.

Hassan, M. S., Mahmood, H., Saeed, M. I., Alkhateeb, T. T. Y., Arshed, N., & Mahmoud, D. H. (2021). Investment portfolio, democratic accountability, poverty and income inequality nexus in pakistan: A way to social sustainability. *Sustainability, 13*(11), 6411.

Hazra, S., & Bhukta, A. (2022). Blue Economy: An Overview. *The Blue Economy: An Asian Perspective*, 3-13.

Heidkamp, C. P., Morrissey, J., Germond-Duret, C., & Rourke, M. (2022). Blue Economy: People and Regions in Transitions. In *Blue Economy* (pp. 3-10): Routledge.

Hussain, S., Rafiq, M., Quddus, A., Ahmad, N., & Pham, P. T. (2021). China-Pakistan economic corridor: Cooperate investment development and economic modernization encouragement. *Journal of Contemporary Issues in Business and Government*.

Ibrar, M., Kakepoto, H., Manzoor, B., & Khan, M. A. (2022). Pakistani community attitudes and support for china-pakistan economic corridor (CPEC). *Competitive Education Research Journal, 3*(1), 193-208.

Ikram, M. (2021). CPEC and Re-Orientation of China-Pakistan Relations. *South Asian Studies, 2*(35).

Iqbal, K., Xu, C., Han, Y., Motalleb, Q. A., Ijaz, N., & Dou, P. (2022). Numerical study on seismic response of offshore wind turbine monopile in multi-layered soil profile of Arabian Sea. *International Journal of Structural Stability and Dynamics*, 2350049.

Ishfaq, S., Kouser, S., & Jepson, R. (2022). Impact of women's empowerment on household vulnerability to food insecurity within the rural economy of Pakistan. *Pakistan Journal of Agricultural Sciences, 59*(4).

Islam, M., & Sarker, T. (2022). Financing sustainable coastal and maritime tourism in the blue economy of the Asia-Pacific. *De Gruyter Handbook of Sustainable Development and Finance*, 543.

Islam, M. W., & Sarker, T. (2021). Sustainable coastal and maritime tourism: A potential blue economy avenue for Bangladesh.

Jabeen, A., & Khan, S. A. (2022). Economic growth, social inclusion, and environmental protection: assessing the existence of green growth in Pakistan. *Environmental Science and Pollution Research, 29*(44), 66675-66688.

Jauhari, H., & Periansya, P. (2021). Economic growth, poverty, urbanization, and the Small and Medium Enterprises (SMEs) in Indonesia: Analysis of Cointegration and Causality. *Binus Business Review, 12*(2), 143-150.

Khadim, Z., Batool, I., & Bilal Lodhi, M. (2021). China–Pakistan economic corridor, logistics developments and economic growth in Pakistan. *Logistics, 5*(2), 35.

Khalid, I. (2022). China-Pakistan Economic Corridor: A Challenging Initiative. In *Opportunities and Challenges for Multinational Enterprises and Foreign Direct Investment in the Belt and Road Initiative* (pp. 81-101): IGI Global.

Khan, A., Ilmas, F., Zubair, M., Khan, A., & Zhong, L. H. (2022). The Impact Of CPEC On The Economy Of Pakistan. *Journal of Positive School Psychology, 6*(10), 4214-4223.

Khan, M. R. (2021). Blue Economy and Pakistan's Maritime Potential. *Book Review/IJKIE. ORG*, 51-53.

Khan, M. T., Anwar, M. M., & Husnain, M. (2021). The relationship between corporate diversification and tax avoidance: empirical evidence from the emerging economy of Pakistan. *Journal of Accounting and Finance in Emerging Economies, 7*(1), 35-52.

Khan, S. H. (2023). Blue Biotechnology: The secrets of the ocean are yet to be explored. *Sat*.

Khan, W., Naqvi, S., Khan, H. U., Rafiq, M., Ahmad, B., Noor, A., . . . Shadman, M. (2021). Feeding habit of Brown trout (Salmo trutta fario) in upper parts of river Swat, Pakistan. *Brazilian Journal of Biology, 82*.

Korankye, B., Wen, X., Appiah, M., & Antwi, L. (2021). The nexus between financial development, economic growth and poverty alleviation: PMG-ARDL estimation. *Etikonomi, 20*(1), 1-12.

Kousar, S., & Shabbir, A. (2021). Analysis of environmental degradation mechanism in the nexus among energy consumption and poverty in Pakistan. *Environmental Science and Pollution Research, 28*(22), 27528-27541.

Lepage, M., Capderrey, C., Elliott, M., & Meire, P. (2022). Estuarine Degradation and Rehabilitation. *Fish and Fisheries in Estuaries: A Global Perspective, 1*, 458-552.

Li, X., Alam, K. M., & Wang, S. (2018). Trend analysis of Pakistan railways based on industry life cycle theory. *Journal of Advanced Transportation, 2018*.

Li, Y., Wu, W., & Wang, Y. (2021). Global poverty dynamics and resilience building for sustainable poverty reduction. *Journal of Geographical Sciences, 31*(8), 1159-1170.

Lyons, P., Mynott, S., & Melbourne-Thomas, J. (2023). Enabling Indigenous innovations to re-centre social licence to operate in the Blue Economy. *Marine Policy, 147*, 105384.

Mahmood, S., Ali, G., Menhas, R., & Sabir, M. (2022). Belt and road initiative as a catalyst of infrastructure development: Assessment of resident's perception and attitude towards China-Pakistan Economic Corridor. *PloS one, 17*(7), e0271243.

Malik, H. Y. (2021). Developing Gwadar Port in Contemporary Blue Economy. *Pakistan Business Review, 23*(2).

Maqsoom, A., Aslam, B., Khalil, U., Kazmi, Z. A., Azam, S., Mehmood, T., & Nawaz, A. (2022). Landslide susceptibility mapping along the China Pakistan Economic Corridor (CPEC) route using multi-criteria decision-making method. *Modeling Earth Systems and Environment, 8*(2), 1519-1533.

McCartney, M. (2022). *The Dragon from the Mountains: The China-Pakistan Economic Corridor (CPEC) from Kashgar to Gwadar*: Cambridge University Press.

Megawati, S., Rahaju, T., Mahdiannur, M., & Kurniawan, B. (2021). *Integrated Data-based Poverty Alleviation to Achieve SDGs.* Paper presented at the IOP Conference Series: Earth and Environmental Science.

Muhammad, D. M., Brohi, M. A., & Ullah, N. (2021). The Pakistan's Untapped Blue Economy Potential. *Journal of Global Peace and Security Studies (JGPSS), 2*(1), 63-73.

Mustafa, K., Nosheen, M., & Khan, A. U. (2021). Dynamic reflections of multidimensional health poverty in Pakistan. *PloS one, 16*(11), e0258947.

Nandy, D. (2022). Terror Financing Claims and Unregulated Economy of Pakistan: An Investigation of an Economically Failed State. *International Journal of Politics and Security, 4*(1), 143-169.

Naqvi, H. A., Khan, M. A., & ud Din, G. M. (2022). Implications of Structural Adjustment Programs (SAPs) on the Economy of Pakistan. *Journal of Business & Economics, 14*(1), 1-16.

Nezhad, M. M., Neshat, M., Groppi, D., Marzialetti, P., Heydari, A., Sylaios, G., & Garcia, D. A. (2021). A primary offshore wind farm site assessment using reanalysis data: A case study for Samothraki island. *Renewable Energy, 172*, 667-679.

Nigar, N., & Khetran, M. B. (2021). China's Success in Poverty Alleviation: Experience for Pakistan. *Contemporary Social Sciences, 2021*(4), 3.

Novaglio, C., Bax, N., Boschetti, F., Emad, G. R., Frusher, S., Fullbrook, L., . . . Robinson, L. M. (2022). Deep aspirations: towards a sustainable offshore blue economy. *Reviews in fish biology and fisheries, 32*(1), 209-230.

Pereira, C. G. (2022). Special Issue on Advances in Marine Biotechnology: Exploitation of Halophyte Plants. In (Vol. 12, pp. 10573): MDPI.

Pirasteh-Anosheh, H., Parnian, A., Spasiano, D., Race, M., & Ashraf, M. (2021). Haloculture: A system to mitigate the negative impacts of pandemics on the environment, society and economy, emphasizing COVID-19. *Environmental Research, 198*, 111228.

Pramanik, A., Das, S., & Ghosh, T. (2022). Role and Prospect of Marine Biotechnology in Blue Economy. In *The Blue Economy: An Asian Perspective* (pp. 77-90): Springer.

Rasheed, A., Hamid, K., Talha, N., & Ibrahim, T. O. (2022). Testing The Validity of Postmodern Theory of Portfolio from Market Based Model: An Empirical Evidence from Emerging Economy of Pakistan. *International Journal of Management Research and Emerging Sciences, 12*(1).

Rehman, A., Cismas, L. M., & Milin, I. A. (2022). "The Three Evils": Inflation, Poverty and Unemployment's Shadow on Economic Progress—A Novel Exploration from the Asymmetric Technique. *Sustainability, 14*(14), 8642.

Roth, F. (2022). Does Too Much Trust Hamper Economic Growth? In *Intangible Capital and Growth: Essays on Labor Productivity, Monetary Economics, and Political Economy, Vol. 1* (pp. 141-165): Springer.

Saleem, H., Shabbir, M. S., Shah, S. A. R., & Shah, J. (2021). Nexus between Foreign Direct Investment and Poverty Reduction: A case of Pakistan. *iRASD Journal of Economics, 3*(3), 272–280-272–280.

Samad, G., & Abbasi, J. (2022). Advancement of Science and Technology: Future Prospect of Blue Economy. In *The Blue Economy: An Asian Perspective* (pp. 15-35): Springer.

Sarwar, A., & Iqbal, M. T. (2022). *Design and Optimization of Solar PV system for a Fish Farm in Pakistan.* Paper presented at the 2022 IEEE 12th Annual Computing and Communication Workshop and Conference (CCWC).

Schneider, X. T., Stroil, B. K., Tourapi, C., Rebours, C., Gaudêncio, S. P., Novoveska, L., & Vasquez, M. I. (2022). Responsible research and innovation framework, the Nagoya protocol and other European blue biotechnology strategies and regulations: gaps analysis and recommendations for increased knowledge in the marine biotechnology community. *Marine Drugs, 20*(5), 290.

Selwyn, D. (2022). Global Britain and London's Mega-Mining Corporations: Colonial Ecocide, Extractive Zones, and Frontiers of Martial Mining. In *Enforcing Ecocide: Power, Policing & Planetary Militarization* (pp. 125-152): Springer.

Setiyowati, H., Nugroho, M., & Halik, A. (2022). Developing a Blue Economy in Depok West Java, Indonesia: Opportunities and Challenges of Neon Tetra Fish Cultivation. *Sustainability, 14*(20), 13028.

Shafi, J., Waheed, K., Mirza, Z., & Zafarullah, M. (2021). Assessment of soil quality for aquaculture activities from four divisions of punjab, pakistan. *JAPS: Journal of Animal & Plant Sciences, 31*(2).

Shafi, J., Waheed, K. N., Mirza, Z. S., & Zafarullah, M. (2021). Variation in bottom soil quality with increasing pond age in freshwater aquaculture. *Turkish Journal of Fisheries and Aquatic Sciences, 22*(2).

Shahnawaz, S. (2022). *State of Human Security in Security State: A Case Study of Pakistan.* Paper presented at the GMPI Conference Series.

Shahzad, S. M. (2021). Economic prosperity through Pakistan Marine Fishery: Opportunities and Challenges. *Pakistan Journal of Multidisciplinary Research, 2*(1), 39-57.

Shahzad, S. M. (2022). Impact of CPEC on Pakistan's Economic Outlook. *South Asian Studies, 37*(1).

Sharma, M., Gupta, M., Sharma, R. L., & Sharma, A. K. (2021). Prospects and challenges of microfinance as a tool in poverty reduction. *Academy of Marketing Studies Journal, 25*(6), 1-6.

Sikandar, F., Erokhin, V., Xin, L., Sidorova, M., Ivolga, A., & Bobryshev, A. (2022). Sustainable Agriculture and Rural Poverty Eradication in Pakistan: The Role of Foreign Aid and Government Policies. *Sustainability, 14*(22), 14751.

Subhan, A., Khurshid, N., & Shah, Z. (2022). *Uncovering Price Puzzle in the Wheat Economy of Pakistan: An Application of Artificial Neural Networks.* Paper presented at the 2022 2nd International Conference on Artificial Intelligence (ICAI).

Sughra, F., Hafeez-ur-Rehman, M., Abbas, F., Altaf, I., Razzaq, S., Kanwal, S., . . . Akram, M. (2022). Phenotypic characterization, genetic analysis and antibiotic sensitivity of Aeromonas hydrophila isolates causing dropsy in cultured Labeo rohita from Punjab, Pakistan. *Journal of Fisheries, 10*(1), 101207-101207.

Sujadmiko, B., & Meidiantama, R. (2022). Vertical Conflict on Sea Sand Mining Activities in Lampung; Law Enforcement and Sociological Approach. *Administrative and Environmental Law Review, 3*(2), 111-124.

Suleman, R., Javed, M. S., & Amjad, M. A. (2022). Influence of Food Products Sudden Inflation on Livelihoods of Daily Income Wagers of Pakistan. *Annals of Social Sciences and Perspective, 3*(1), 129-135.

Syed, R., & Safdar, A. (2021). Revisiting blue economy: challenges and prospects for the maritime sector of pakistan. *Journal of Contemporary Studies, 10*(2), 16-37.

Tagar, H. K., Shaikh, S. M., Tagar, A. K., & Bijarni, G. A. (2021). Economic Growth of Pakistan in 21 st Century and the Use of 'Blue Economy'Resources for Sustainability. *European Journal of Social Sciences, 62*(2), 38-49.

Trifonova, N., Scott, B., Griffin, R., Pennock, S., & Jeffrey, H. (2022). An ecosystem-based natural capital evaluation framework that combines environmental and socio-economic implications of offshore renewable energy developments. *Progress in Energy, 4*(3), 032005.

Ullah, I., Zhang, J., Rehman, A., & Zeeshan, M. (2022). Linkages between trade openness, natural gas production and poverty in Pakistan: A simultaneous equation approach. *Resources Policy, 79*, 103106.

Ullah, W., Ni, X., Hussain, A., & Neelam, B. (2021). Relationship of Transport Infrastructure, China-Pakistan Economic Corridor (CPEC) and Elimination of Poverty: A Case of Hazara Division. *J. Manag. Res, 7*, 68-81.

Ullah, Z., Wu, W., Wang, X. H., Pavase, T. R., Shah, S. B. H., & Pervez, R. (2021). Implementation of a marine spatial planning approach in Pakistan: An analysis of the benefits of an integrated approach to coastal and marine management. *Ocean & Coastal Management, 205*, 105545.

van de Water, J. A., Tignat-Perrier, R., Allemand, D., & Ferrier-Pagès, C. (2022). Coral holobionts and biotechnology: from Blue Economy to coral reef conservation. *Current Opinion in Biotechnology, 74*, 110-121.

Wolf, S. O. (2021). *China-Pakistan Economic Corridor of the Belt and Road Initiative*: Springer.

Wu, H., Guo, B., Fan, J., Yang, F., Han, B., Wei, C., . . . Meng, C. (2021). A novel remote sensing ecological vulnerability index on large scale: A case study of the China-Pakistan Economic Corridor region. *Ecological Indicators, 129*, 107955.

Yasmeen, S., Aftab, N., & Muhammad, F. (2021). Contribution of blue economy in global economy. *Pakistan journal of international Affairs, 4*(4).

Zahra, S., Shah, S. A. R., & Badeeb, R. A. (2022). A sustainable green–blue revolution in Pakistan: a new perspective from quantile regression analysis. *Environment, Development and Sustainability*, 1-28.

Zain, Z. M., Khalid, N. S. M., Nurudin, S. M., & Onimisi, T. (2021). Poverty Alleviation Policies in Malaysia and Nigeria: A review. *Environment-Behaviour Proceedings Journal, 6*(16), 239-246.

Zhao, J., Dong, K., Dong, X., & Shahbaz, M. (2022). How renewable energy alleviate energy poverty? A global analysis. *Renewable Energy, 186*, 299-311.

Zhao, J., Sun, G., & Webster, C. (2022). Does China-Pakistan Economic Corridor improve connectivity in Pakistan? A protocol assessing the planned transport network infrastructure. *Journal of Transport Geography, 100*, 103327.

4

Silk Route and Pak China Relations- Beyond CPEC

Attaullah Shah
https://orcid.org/0000-0003-1720-5494
Karakoram International University, Gilgit-Baltistan, Pakistan

Introduction

Historically, the friendly relations with China has been the cornerstone of Pakistan's foreign policy, which has been witnessing an upward trajectory in last 75 years of diplomatic relations (Siddique, 2014a). With the emergence of nation States of Pakistan on 14th August 1947 and People Republic of China on 1 Oct 1948, the informal relation through traditional Silk Route has been converted into formal relations. The diplomatic relations between the two countries started on 21st May 1951. Pakistan was the first Muslim country to recognize PR China (Pande, 2011). In decade of 1960's, the relations between the two countries touched the new height and China provided full support to Pakistan, during 1965 War with India. Chinese foreign minister Mr. Zhou Enlai showed their commitment to save Pakistan's national independence, sovereignty, and national integrity. This relationship has been turned into strategic partnership in 1980s and 1990s, which extended to the area of trade, finance, technology, and defence. This partnership has been further strengthened with the initiation of flagship project China Pakistan Economic Corridor (CPEC) under Belt and Road Initiative (BRI) of President Xi Jinping (Javaid, 2016). Pak China relations is however faced with many obstacles at regional and global levels. These factors are explained as follows:

Regional Obstacles

CPEC is aimed at creating a Win-Win situation for both China and Pakistan. It will multiply the economic progress of China at one hand and generating opportunities for the development of Pakistan on the other hand. Through Gwadar port, China is trying to create a maritime Silk Route to reduce its transportation distance of goods and services to one third by eliminating the Malaccan Straits. This will certainly enhance the geopolitical influence of China in the region which will ultimately challenge the US supremacy, hence US will create obstacles for Chinese expansion in the region by strengthening India against China. United States officially announced their China's containment policy to initiate joint infrastructure development project with G7 countries called "Build Back Better World (B3W)". This project is an attempt to counteract the BRI to contain the China's expansion on geopolitical and geo-economics fronts ("Global Village Space," 2021). In this context the quadrilateral Security Dialogue, also called Quad among US, Australia, Japan, and India is an attempt to contain China in Indo-pacific region. The second Quad is led by US and comprises of Israel, UAE, and India whereas the third quad AUKUS is led by US and comprises of Australia, UK and US. The

rise of China in the region has brought four states closer for creating impediments to the strategic and economic expansion of China in the region (BASU, 2019).

Indian Antagonistic Role

India is perceived as a threat by both Pakistan and China. This threat for China extends beyond the Indian ocean. India on the other hand is trying to achieve hegemony in the region through its expansionist policies. Certainly Pakistan and China is united to obstruct this nefarious motive of India (Ranade, 2021). India has also operationalized the Chahbahar port at Iran to counteract the Gwadar port. The 2020 Ladakh boundary conflicts between China and India, has compelled the later to forge partnership in various US led Quads, with an aim to restrict the expansion of China to Indian ocean (Kutty & Basrur, 2021). Under such growing geostrategic and geo-economics circumstances and challenges, the CPEC will remain under high pressure from different forces around the world. This will certainly need close collaboration and partnership between China and Pakistan at Government and people levels, creating more responsibility on the Governments, media, and people of Pakistan to provide unwavering support to CPEC for its success.

Complex Tringle of China, India, and Pakistan

The triangular complexity between the three major nations of the region is considered as a balancing reality also. With China's plans to extend its trade at the regional and global levels, India has forged partnership with the historic opponents of China. At the other hand, the relations between Pakistan and India have been witnessing the lowest ebb, while fighting three major wars. This naturally brings Pakistan closer to China as its strategic partner. This complex triangle of three major nations of Asia, in the long run will benefit Pakistan, provided that a proactive approach is adopted.

CPEC and its Strategic Impactions for Pakistan

The transformed version of Silk Route, China Pakistan Economic Corridor (CPEC), has become an important part of regional and international geopolitics and geo-economics. It is a multidimensional project involving development of communication, energy and infrastructure, which in turn will reshape the geopolitics of South Asia (Javed & Ismail, 2021). Besides, strengthening the trade and commerce relations between China and Pakistan, the CPEC will also reduce differences among province and improve national solidarity, while sharing its benefits and dividends with all the provinces, Gilgit Baltistan and Azad Jammu and Kashmir (Merriam & Tisdell, 2015). For the success of Belt and Road Initiative (BRI), the accomplishment of CPEC will form the founding stone to connect China with the rest of the world. The positive impacts of the mega projects will depend on its capability to expand beyond the borders of China and Pakistan to improve the regional and global connectivity (Muhammadi, Liu, & Hussain, 2022).

The term geo-economics is defined as "The relationship between the economic policy and change in the national power and geopolitics". It is also defined as "The economic consequences of trends in geopolitics and national power" i.e. Flag Follows the Trade (Baru, 2012). The BRI and CPEC are also thought as an instrument of China's global geopolitics and geo-economics game. Geo-economics is becoming more favourable tool, which replicate the interdependence of global and national economics. With the fall of Berlin Wall, collapse of the USSR, the bipolarity of the world politics shifted to Globalization at the dawn of the twenty first century and Regionalism within the domain of Globalization became a stronger national policy. As a result, economic integration at regional level became a precursor for global prosperity and peace. The China's endeavour for regional integration is mainly aimed at ensuring its Energy Security both in the short term and long term. CPEC will emerge as the primary oil supply route from Middle East and Africa to China with Gwadar Pakistan as the major hub (Blank, 2010). Under the changing geo-economics, the regional integration with Pakistan and Afghanistan becomes very important for China. There is also a great opportunity for Pakistan to closely work with China. Under such evolving scenarios, the relations between China and Pakistan will strengthen and bolster further. The attractive geo-economics will ultimately be strengthening the geostrategic alliance between the two countries (Javaid & Javaid, 2016).

In the changing global geo-economics and geo-strategic, Pakistan has become more important for China and close coordination and cooperation between Islamabad and China has become need of the day. The importance of Pakistan to ensure peace in Afghanistan is also a very supportive point to strengthen this relation, as China desires sustainable peace in the region to pursue its economic agenda. Pakistan enjoyed a unique geostrategic importance in the global politics as quoted by Stephen Cohen (Munir, 2018), "While ***history has been unkind with Pakistan, its geography has been its greatest benefit***". Pakistan's strategic location on the confluence of South and Central Asia and West Asia. Pakistan offers the shortest route.

Power Play in South Asia and Pak China Relations

South Asia is home to 25% of global population with high level of poverty but the people of the region are generally creative, intelligent, and hardworking. With growing US China rivalry (Lodhi, 2021), the South Asia is becoming a sub region of Indo Pacific theatre of great power games. The region is faced with multitude of natural and man-made disasters including but not limited to Climate Change, poverty, food security and law & order but due to growing distrust in the leaders of various countries of the region, these issues are not focused. The regional cooperation has not been very effective as a result. The accession of Taliban in Afghanistan has further deepened this uncertainty. It is feared that Afghanistan may become a hub for *New Great Game*. Both Pakistan is resolved to deal with these situations more prudently. In this context both countries have agreed for

international engagement of Afghanistan in the following ways:

- A broad-based political dispensation.

- Urgent humanitarian assistance.

- Afghan capacity building.

- Respect for basic human rights

- An undertaking by Taliban that the Afghan territory will not be used against anyone for terrorism.

In this context Pakistan and China are trying to mobilize the international community to provide support to Afghanistan to achieve these goals.

There seems no change in friendship and enmity in South Asia and the rivalry between Pakistan and India is not going to be defused in short term, due to aggressive and expansionist approach of India. At the same time, the conflicts between China and India are growing, which are based on the distrust of the latter and growing cooperation between India and US. Pakistan on the other hand, has deep rooted cooperation and strategic friendship with China. Hence the security cum strategic complexion of South Asia can be seen in the context of closer amity between Islamabad and Beijing, and hostility or tension between the Beijing and Delhi if not enmity (Nasim, 2022). The strategic relationship between China and Pakistan, is thus based on the following facts and ground realities.

i. Pakistan through CPEC is providing the highly desired and wanted connectivity of China Xinjiang province with the Arabian Sea through Gwadar deep seaport.

ii. The US existential threat to China in the South China Sea and Indo-pacific region, with aim to contain China.

iii. China's perceptions about its intensified containment and encirclement.

Under these circumstances, the Pakistan China strategic relations and interdependence has become more deep rooted in the post 9/11 and President Xi, Belt and Road Initiatives (BRI).

In last three years, China has put forward three important initiatives for the peaceful coexistence of human race, Global Development Initiatives (GDI) Global Security Initiative (GSI) and Global Cultural Initiative (GCI). These initiatives are discussed further in the subsequent parts of the chapter.

Three Major Initiatives of President Xi Jinping for Global Peace and Prosperity

Global Security Initiative (GSI)

President Xi Jinping presented the GSI on April 21, 2022, calling for collaboration and integration to resolve the global complex and intertwined security issues with a win-win mind set. In the Post COVID-19 scenario, the shift to protectionism and unilateralism has exposed the world to new traditional and non-traditional security challenges. Hence the world needs peace and prosperity for socioeconomic development and all causes of international conflicts need to be eliminated. GSI has received international applause by more than 80 countries and several international organizations. The core concepts of GSI are given below:

- ***Stay committed to the vision of common, comprehensive, cooperative, and sustainable security.*** A commitment to cooperation, bringing about security through political dialogue and peaceful negotiation; and pursuit of sustainable security, resolving conflicts through development and eliminating the breeding ground for insecurity.

- ***Stay committed to respecting the sovereignty and territorial integrity of all countries.*** Sovereign equality and non-interference in internal affairs are basic principles of international law and the most fundamental norms governing contemporary international relations.

- ***Stay committed to abiding by the purposes and principles of the UN Charter.*** The purposes and principles of the UN Charter embody the deep reflection by people around the world on the bitter lessons of the two world wars. Today the UN resolutions are not implemented in true spirits by the member states and hence the trust of nations in the UN effectiveness is deteriorating. To repose this trust, UN and its resolutions must be respected by all in true spirit.

- ***Stay committed to taking the legitimate security concerns of all countries seriously.*** All countries are equal in terms of security interests. The legitimate and reasonable security concerns of all countries should be taken seriously and addressed properly.

- ***Stay committed to peacefully resolving differences and disputes between countries through dialogue and consultation.*** Only dialogue and consultation are effective in resolving differences.

- ***Stay committed to maintaining security in both traditional and non-traditional domains.*** Both traditional and non-traditional security threats

are entangled, which include terrorism, climate change, cybersecurity, and biosecurity. There is a need for collaboration and extensive consultation, to promote global security governance and prevent and resolve security challenges.

Global Development Initiative (GDI)

The Global Development Initiatives (GDI) were announced by President Xi in UN General Assembly in 2021 during his speech titled "*Bolstering Confidence and Jointly Overcoming Difficulties to Build a Better World*" GDI has focus on advancing the SDGs and enhancing the capacity of developing countries for transition to low carbon economies (Baviera, 2016)". In June 2022, Chinese president Xi Jinping chaired the High-level Dialogue on Global Development under the theme "*Foster a Global Development Partnership for the New Era"* to Jointly Implement the 2030 Agenda for Sustainable Development (NATIONS). GDI is based on the following commitments by China:

- Global Development as top priority for all
- People centred development approach.
- Innovation driven development
- Harmony between human and nature
- Results oriented actions for human development.

To achieve the GDI, President Xi has delineated the following eight priority areas:

i. Poverty alleviation,
ii. Food security,
iii. Pandemic response and vaccines,
iv. Financing for development,
v. Climate change and green development,
vi. Industrialization,
vii. Digital economy and
viii. Connectivity in the digital era

The GDI is focused on expediting the achievement of the SDGs through closer partnership and coordination. It is aimed at making SDGs as central agenda for international engagements, developing synergies by pooling resources and fast track development in the eight priority areas outline above.

Global Cultural Initiatives (GCI)

The Chinese president Xi Jinping, also proposed Global Civilization Initiative (GCI) with focus on respecting diversity of civilizations across the world, during the Political Parties Conference on March 15, 2023. GCI has the following important attributes:

- GCI advocates for the respect and diversity of civilization of all nations of the world
- GCI is based on the doctrines of equality, mutual learning, dialogue and inclusivity.
- It also stresses humanity's common values like peace, development, equality, democracy, and freedom.
- GCI also calls for the inheritance and innovation of traditional cultures and strengthening of international people to people exchange.

China Pakistan Relations in 21st Century Beyond CPEC

Pak China relations have always attracted public support on both sides. The research and cultural exchanges by the two nations have been conducted for mutual benefits. Pak China relations have deepened with time from focus on strategic alliance to economics but in the evolving geo-political circumstances, these relations are also faced with complications (Baig et al., 2020). This strategic partnership is focused on peace, stability, and progress. Besides CPEC, this cooperation is also inevitable for addressing the challenges of terrorism, regional conflicts, energy crisis, and environmental degradation. Pakistan always supported the China's national policies including its stance on One China Policy.

China and Pakistan relations have four main features, firstly China and Pakistan are time tested friends and have supported each other at the regional and international levels. Pakistan has been firmly supporting China in the issues of Taiwan, Tibet, Xinjiang etc. China has been providing unmatched support to Pakistan for its territorial integrity, independence, sovereignty and providing selfless support in socioeconomic developments. Secondly both the countries are partners on the base of Win-Win Cooperation. Starting from sacrifices rendered by Chinese 40 years back in the construction of Karakoram Highways, Pakistan has become China's second largest trade partner in last 70 years. Thirdly China and Pakistan are partners with intimate souls, deeply rooted through hearts. Pakistan always provided valuable assistance to China for connecting with China during its embryonic age. The JF17, jointly developed by the two countries flies over the mighty mountains of Karakorum from China into Pakistan. Both the countries are strongly oriented towards global peace and prosperity.

In the emerging regional scenario in Afghanistan, the relation of Pakistan and China will deepen further due to geostrategic importance of Pakistan which Ka-

plan called as *Revenge of Geography*. The interests of China and Pakistan in the region and particularly Afghanistan are multifarious. The relations between the two countries are expanding to geo-economics properties towards focus on successful BRI and CPEC.

For success of CPEC and strengthening a holistic collaboration with China, Pakistan needs to develop consensus at political and people levels. In past, the political dichotomies over national and international issues, has brought large losses to the nation. Despite the border conflicts between India and China, Pakistan has to keep this in mind that being a large market, China will lose no opportunity to restore economic ties with India, if Pakistan fails to come to the expectations of China (Alam et al., 2019). Hence political and public consensus is precursor for this collaboration to succeed. This must be complemented with strong trade policy, with focus on local employment and human capital development. Pakistan would need to transform from a security sensitive stage to development state. This will require promotion of merit and transparency, internal reorientation and strengthening of institutions.

The future direction of Sino-Pak relations must be focused on the following priorities (A. U. Shah, 2021).

i. Strengthening the education and research collaboration between China and Pakistan on CPEC and BRI: The research must focus on various dimensions of BRI and CPEC, to create evidence-based information for policy making. The academic and research exchanges must focus on developing and transferring modern knowledge and technologies to Pakistan.

ii. A pool of expert diplomats for BRI countries, particularly China, may be trained and developed. There is a strong need to understand the Chinese governance, economic and political system for close coordination in the areas of mutual interests.

iii. There is a need to engage the youth of Pakistan in higher education, training and development in Chinese institutions to closely work with their systems and culture. Higher Education with the support of Federal Governments have already established 6 China Study Centres across the country and there are number of such centres initiated by the higher education institutes. These Centre can play a pivotal role in integrating the Universities of both countries for high quality academics and research.

iv. To strengthen the human resource base of Pakistan for the future CPEC projects in the country, there is a high need for the capac-

ity development of youth of Pakistan in the various emerging techno-vocational fields such as AI, Block Chain, Drone technologies, Data Analytics, 3D printing etc. For this purpose, integration of Pakistani 2-year technical diploma program with 3-year diploma program of China is required. At KIU, we are exploring such collaboration with the Chinese Universities for one-year training of students of associate degrees in the selected fields.

v. The Military and strategic programs and collaboration between the two countries may be further strengthened in view of the evolving geostrategic and geo-political scenarios in South Asia, for regional stability and creating deterrence against the hegemonic approach of India.

vi. Due to expected high wages in China, the labour-intensive industries may be shifted to Pakistan, where the wages are relatively low. This will create trickledown effect of the CPEC projects.

vii. The Sino-Pak Free Trade Agreement has been signed in 2006, but the balance is more towards China. Both the countries must be provided with the level play fields. There are always high concerns from the traders from Pakistan and Gilgit Baltistan, that China has imposed many restrictions on importing Pakistani goods, which is leading to little exports from Pakistan. These procedures and restrictions must be relaxed. In recent initiative, China has agreed to import the Cherries from GB, which will lead to some economic opportunities for the local people.

viii. Besides investment in energy, infrastructure and defence, mineral development Pakistan has also needed to attract Chinese investment in agriculture, services, high-end manufacturing, and innovative technologies. Pakistan needs to take advantage of Chinese development in the modern and emerging technologies.

ix. Culture and Tourism is still unexplored areas on both sides. Pakistan having many Buddhist relics and stupas. This can attract Chinese for religious tourism.

x. People to people contact between the two countries may be strengthened through Cultural, Faculty and Students Exchange programs. In recent years, this exchange programs have been strengthened after the COVID-19.

The international relations between Pakistan and China, has become entangled in diverse common interest ranging from geostrategic to trade, education, culture, and economics. With the CPEC as part of BRI philosophy of President Xi, Pakistan has assumed more importance for China in the region. The success of the CPEC requires strong determination from the successive Governments and people of Pakistan. In the adversary role of India and now US, there are many challenges for the success of CPEC. Pakistan can play a pivotal role in bridging these gaps and make the CPEC more beneficial for the region. There is a great future of China Pakistan collaboration for socioeconomic, geopolitical and geo-economics transformation in the region beyond the CPEC.

Suggested Citation

Shah, A. (2023). Silk Route and Pak China Relations- Beyond CPEC. In *Silk Route Revisited: Essays and Perspectives on the China-Pakistan Economic Corridor and Beyond* (pp.62-72). CSC-KIU.

References

Alam, K. M., Li, X., & Baig, S. (2019). Impact of transport cost and travel time on trade under China-Pakistan economic corridor (CPEC). *Journal of Advanced Transportation, 2019*.

Baig, S., Qasim, M., Xuemei, L., & Alam, K. M. (2020). Is the China-Pakistan economic corridor an opportunity or a threat for small and micro-entrepreneurs? Empirical evidence from Northern Pakistan. *Sustainability, 12*(5), 1727.

Baru, S. (2012). Geo-economics and Strategy. *Survival, 54*(3), 47-58.

Basu, N. (2019). Pakistan struggles under the weight of CPEC but puts on brave face against US criticism. Retrieved from https://theprint.in/diplomacy/pakistan-struggles-under-the-weight-of-cpec-but-puts-on-brave-face-against-us-criticism/326143/

Baviera, A. S. (2016). China's strategic foreign initiatives under Xi Jinping: An ASEAN perspective. *China Quarterly of International Strategic Studies, 2*(01), 57-79.

Blank, S. (2010). China Hangs fire on Iran-Pakistan pipeline. *Asia Times*.

Global Village Space. (2021). What It Is Not. Retrieved from https://thediplomat.com/2021/03/the-quad-what-it-is-and-what-it-is-not/

Lodhi, M. (2021). An inescapable contest. Retrieved from https://www.dawn.com/news/1639586

Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative research: A guide to design and implementation*: John Wiley & Sons.

Muhammadi, Liu, H., & Hussain, I. (2022). The Emerging Dimensions of China–Pakistan Economic Cooperation and CPEC: Significance and Challenges. *Fudan Journal of the Humanities and Social Sciences, 15*(4), 531-551.

Munir, M. (2018). Pakistan-China Strategic Interdependence. *Strategic Studies, 38*(2), 21-42.

Nasim, A. (2022). Pak-China Geostrategic Interdependence: Impact on Rising Economies of Asia. *South Asian Studies, 37*(1).

Nations, U. Global Development Initiative-Building on 2030 SDGs for Stronger, Greener and Healthier Global Development. Retrieved from https://sdgs.un.org/partnerships/global-development-initiative-building-2030-sdgs-stronger-greener-and-healthier-global

Pande, A. (2011). *Explaining Pakistan's foreign policy: escaping India* (Vol. 41): Taylor & Francis.

Ranade, J. (2021). China-Pakistan Strategic Nexus: Implications for India. Retrieved from https://www.vifindia.org/article/2021/april/16/china-pakistan-strategic-nexus-implications-for-india

Shah, A. U. (2021). *China Pakistan Friendship-70 years of Diplomatic relation-China Study Centre Karakoram International University Gilgit Baltistan, Pakistan*

Siddique, Q. (2014). Deeper than the Indian ocean? An analysis of Pakistan-china relations. *Center for International and Strategic Analysis Report No, 16*, 1-42.

5

Understanding Mountain Communities Knowledge and Their Support for China-Pakistan Economic Corridor: The Mediating Role of Perceived Tourism Development

Faqeer Muhammad
https://orcid.org/0000-0003-3261-3066
China Study Centre (CSC), Karakoram International University Gilgit-Baltistan

Amjad Ali
https://orcid.org/0000-0002-5840-8848
Department of Development Studies, KIU Hunza Campus

Muhammad Idrees
https://orcid.org/0009-0004-2771-7930
Department of Economics, Karakoram International University Gilgit-Baltistan

Abid Hussain
https://orcid.org/0009-0003-8654-8770
PhD Scholar at the Department of Economics, KIU Gilgit-Baltistan

Zia Uddin
https://orcid.org/0000-0003-1499-6075
PhD Scholar at the Department of Economics, KIU Gilgit-Baltistan

Introduction

Gilgit-Baltistan (GB) is a region in northern Pakistan that hosts some of the world's highest mountain peaks, breathtaking valleys, and lush meadows. These natural wonders have made GB a popular destination for tourists seeking adventure and beauty. Despite its potential for economic development through tourism, the region has faced several challenges, including poor infrastructure, energy deficits, sectarian violence (Arshad, Iqbal, & Shahbaz, 2018), and Climate change (A. Ali et al., 2021; Baig, Hussain, & Yenigun, 2021; Shedayi et al., 2022). However, there has been a recent increase in holiday arrivals to Pakistan's northern areas, with a 25% growth observed in 2016 compared to the previous year (Arshad et al., 2018) and recently tourism is more pronounced in remotes regions of Gilgit-Baltistan (Amjad Ali, 2022). In addition, the China-Pakistan Economic Corridor (CPEC) project aims to improve accessibility and communication in the region, which could help to address some of the challenges facing the tourism industry in GB. The CPEC project is also expected to develop the hotel industry within its project artery, which could further boost regional tourism (Asif et al., 2019).

The CPEC project has identified the development of tourism-boost sectors as a primary goal, with two centers, one axis, and five designated zones. The centers are located at Gwadar Port and Karachi. At the same time, one axis is a seaside sightseeing strap, and the five zones comprise Gwadar, Jiwani, Jhal Jhao, Keti Bandar, and Ormara Sonmiani. By developing the tourism industry in the region, the CPEC project could help to create stronger social, political, and economic ties between Pakistan, China, and other countries in the region. People's perceptions of the effects of the China-Pakistan Economic Corridor (CPEC) on regional tourism development can be positive and negative. Social exchange theory suggests that people consider the multidimensional effects of tourism on their livelihoods. While improved infrastructure through the CPEC project can open the door for more economic activities, people are also aware of the potential adverse effects of mega-tourism on natural resources and culture (Bhat & Mishra, 2021). Scholars argue that at the initial stages of tourism development, people tend to prioritize economic benefits over other effects and are willing to bear the costs of tourism in exchange for resources to earn from tourism development (Tournois & Djeric, 2019). Additionally, tourism can be a source of cultural exchange (Jaafar, Rasoolimanesh, & Ismail, 2017), but conservative people may fear cultural exchange due to tourism, while liberal and direct beneficiaries may be more willing to accept these changes (Gursoy, Jurowski, & Uysal, 2002).

The implementation of CPEC has the potential to address the barriers that have hindered tourism development in the region. Scholars stress that people are enthusiastic about the opportunities that CPEC could bring for economic development (Baig & Hussain, 2020). The construction of roads and other infrastructure is a critical component of tourism development. Improved routes increase connectivity and lower tourist costs while opening up new destinations. Pakistan's tourism stakeholders must promote the country's tourist destinations through various media channels in multiple languages to attract diverse visitors. According to (Kanwal, Rasheed, Pitafi, Pitafi, & Ren, 2020), a positive relationship exists between people's willingness to support tourism and CPEC infrastructure. Their study focused on residents along the CPEC route, suggesting that local support for tourism could be a driving force in the success of the CPEC initiative. Scholars such as (García, Vázquez, & Macías, 2015) and (Kang & Lee, 2018) indicate positive attitudes towards projects like CPEC for tourism development. (Shang, Pitafi, & Rashid, 2022) also found that people's attitudes significantly influence tourism development behavior in the context of CPEC. Additionally, (Mamirkulova et al., 2020) discovered that inhabitants of Kazakhstan believe that the New Silk Road, similar to CPEC, will positively affect ecological tourism expansion and improve the quality of life for local communities. (Baig & Zehra, 2020) conducted a relevant study that found that CPEC significantly stimulates tourism in Gilgit-Baltistan. As CPEC infrastructure expands, the region will see more hotels, transportation, and tourism events. This creates an attractive opportunity for Pakistan and China as tourism destinations along their shared border (Khalil, 2017). With its four seasons, the changing weather patterns in Gilgit-Baltistan

also provide a comparative advantage to attract tourism.

The Gilgit-Baltistan region is still in the initial phase of tourism development. While locals have a harmonious attitude towards this emerging economic activity, the opportunity costs of tourism dwarf the benefits in terms of environmental sustainability (Nazneen, Hong, Jenkins, & Ud Din, 2022). Nonetheless, earlier studies by (Nazneen, Xu, & Din, 2019) claimed that CPEC had triggered tourism demand and highlighted the potential tourist destinations in GB (Alam et al., 2019). With improved infrastructure, people's perception of tourism development has also improved, and they expect a developed and improved tourism market with income-generating activities that stimulate local culture and climate in the forthcoming years. Their expectations are based on GB's tourism potential, including its highest mountains, traditions, passes, and natural beauty. To provide a different perspective, (Z. Ali & Sanauddin, 2022) conducted a people-centric qualitative study to explore the impact of CPEC on the local people of Gwadar. They found that while the indigenous population had reasonable hopes of development from CPEC ventures, their outlook had not changed since the inauguration of CPEC, causing apprehensions and hindrances. While development is appreciated in Gwadar, excluding the indigenous population in decision-making is viewed as discrimination against their legitimate rights and good governance.

The perception of the local community is crucial in supporting the CPEC project because they are the ones who are most likely to be affected by it. A positive perception can lead to greater cooperation, participation, and support for the project. On the other hand, negative perceptions can lead to resistance, opposition, and even protests against the project. Involving the local community in the planning and decision-making process and addressing their concerns can help build trust and ensure that the project is sustainable and has long-term benefits for all stakeholders. Furthermore, local communities are the ones who will ultimately use the project's outcomes, and their support is essential for the success and sustainability of the project. In this backup, this study examines the perception of local communities living along with Karakoram Highways in the district Hunza of Gilgit-Baltistan. It investigates the impact of residents' knowledge of CPEC on CPEC support through their perception of regional tourism development.

Methodology

The key focus of this study is to understand the communities' knowledge of CPEC and their support of CPEC through their attitude toward CPEC and perception of the CPEC's role in tourism development. This study mainly focuses on those communities living along the CPEC route (also known as the Karakoram Highway) in the Hunza district of Gilgit-Baltistan. This region is famous for tourism because of its unique landscape, mighty mountain peak, plenty of glaciers and lakes, biodiversity, and unique cultural heritage (A. Ali et al., 2021; Nazneen et al., 2022). It is considered that the mega project CPEC will have a significant impact on the infrastructure development of this region which in turn to boot up

tourism development benefiting the local community directly.

To meet the objectives of this study, this study collected quantitative data through field surveys in 2022-2023. A questionnaire was developed with the help of the literature and expert input, and it had two parts. First, questions related to the respondents' demographic details were included. The second part included statements related to CPEC knowledge, attitude toward CPEC, CPEC, and Tourism development and community support for CPEC. Respondents were asked to rate their perception on a scale of 1-5 (1 being strongly disagreed andfive5 y agreed). To ensure the validity of the questionnaire, a pilot survey was conducted over 33 respondents with a Cronbach's alpha value of above 0.7 for all constructs. The questionnaire was revised based on the comments and suggestions received from the pilot survey. The questionnaire was initially developed in English language training; however, for the convenience of the respondents, it was translated into Urdu (the national language of Pakistan). Five university graduates were hired to collect final data and were given two days of training in research ethics and survey instruments. The respondents were selected using a cluster random sampling technique as the study's target population lifespan vast geographical area. For this purpose, the study area was divided into three clusters: lower Hunza, central Hunza, and upper Hunza, and the respondents from each cluster were selected randomly. The sample size was determined using the scientific formula with a 95% confidence interval and a 5% margin of error. This way, 475 valid responses were received and considered for statistical analysis.

Results

Sample Characteristics

Table 1 shows the characteristics of the survey respondents. It indicates that the majority of the study respondents are male (76.8%), and the profession of the majority of the survey respondents is business (57.19%), following private jobs (26.4%). 34.31% of the respondents are in the age group of 30-39, and 30.39%have monthly income in the PKR 100,000-150,000 range0. The village-wise distribution of the sample is also shown in Table 1, where 18.63% of respondents belong to Aliabad, 15.69% ng to Murtazabad, and 20.92 respondents are from Hassanbad.

Table 1: Demographic Profile of Respondents			
Variable	**Characteristics**	**Frequency**	**Percentage**
Gender	Male	365	76.8
	Female	110	23.2
Age	20-29	141	29.74
	30-39	163	34.31
	40-49	118	24.84
	50-59	47	9.8
	60 over	6	1.31
Profession	Business	272	57.19
	Govt Job	40	8.5
	Private Job	125	26.4
	Other	38	8
Education Level	Primary school or lower	40	8.5
	Secondary school	48	10.13
	Higher Secondary school	70	14.71
	Bachelor	154	32.35
	Masters	163	34.31
Income Level	Less than 50000	26	5.56
	50000-100000	141	29.74
	100000-150000	144	30.39
	150000-200000	118	24.84
	200000-250000	26	5.56
	Above 250000	20	3.92
Village	Aliabad	88	18.63
	Murtazabad	75	15.69
	Hassanabad	99	20.92
	Gulmit	70	14.71
	Hussaini	57	12.09
	Passu	42	8.82
	Kybar	29	6.21
	Post	15	2.94

Table 2: Results of Confirmatory Factor Analysis			
	Cronbach's alpha	**Composite reliability (rho_c)**	**The average variance extracted (AVE)**
Attitude towards CPEC	0.835	0.753	0.616
CPEC Knowledge	0.761	0.853	0.605
CPEC Support	0.739	0.851	0.657
CPEC and Tourism Development	0.862	0.77	0.534

Table 2 presents the results of confirmatory factor analysis (CFA) for the research study, a statistical technique used to evaluate the construct validity of a measurement instrument. It includes three reliability and validity measures: Cronbach's alpha, composite reliability (rho_c), and average variance extracted (AVE). Cronbach's alpha is a measure of internal consistency reliability, which indicates the degree to which the items in a scale or subscale are interrelated. It is found that the values of Cronbach's alpha range from 0.739 to 0.862, which indicates that the items in each subscale are highly interrelated and reliable. Composite reliability (rho_c) measures the latent variable's reliability, the construct that the scale or subscale intends to measure. The values of rho_c range from 0.753 to 0.853, which indicates that the latent variables have high levels of reliability. The average variance extracted (AVE) is a measure of convergent validity, which indicates the degree to which the items in a scale or subscale measure the same construct. The values of AVE range from 0.534 to 0.657, which indicates that the items in each subscale measure the same construct and have high levels of convergent validity.

Table 3: Hypothesis Testing				
Relationship	**Coefficient**	**SD**	**t-value**	**Result**
Attitude towards CPEC -> CPEC Support	0.039	0.07	0.555	Not supported
CPEC Knowledge -> Attitude towards CPEC	0.87	0.009	98.59	Supported
CPEC Knowledge -> CPEC Support	0.103	0.076	1.359	Not supported
CPEC Knowledge -> CPEC and Tourism Development	0.289	0.044	6.616	Supported
CPEC and Tourism Development -> CPEC Support	0.635	0.036	17.81	Supported

Table 3 presents the results of hypothesis testing related to the China-Pakistan Economic Corridor (CPEC) and its impact on attitude and support towards it and tourism development. The first hypothesis tested is the relationship between attitude towards CPEC and CPEC support, and the results indicated that this re-

lationship is not supported (t<0.05). The second hypothesis, the relationship between CPEC knowledge and attitude towards CPEC, is supported (t>0.05). Similarly, the third hypothesis tested is the relationship between CPEC knowledge and CPEC support. The standard coefficient for this relationship is 0.103, with a standard deviation of 0.076 and a t-value of 1.359, and the result indicates that this relationship is not supported. Furthermore, the fourth hypothesis, the relationship between CPEC knowledge and CPEC and tourism development, is supported. The last hypothesis, the relationship between CPEC and tourism development and CPEC support, is also supported. These results provide evidence for the impact of CPEC knowledge and tourism development on attitude and support towards CPEC. Specifically, the results support the notion that more excellent knowledge of CPEC and its potential impact on tourism development can lead to a more positive attitude towards CPEC and more significant support. However, the results also indicate that attitude towards CPEC alone does not necessarily translate to support for it. The results suggest that CP tourism development is essential in shaping attitudes towards CPEC and its ultimate success.

Table 4: Indirect Effect of CPEC Knowledge on CPEC Support

Relationship	Coefficient	SD	t-value	Result
CPEC Knowledge -> Attitude towards CPEC -> CPEC Support	0.034	0.061	0.55	No mediation
CPEC Knowledge -> CPEC and Tourism Development -> CPEC Support	0.184	0.03	6.02	Mediation

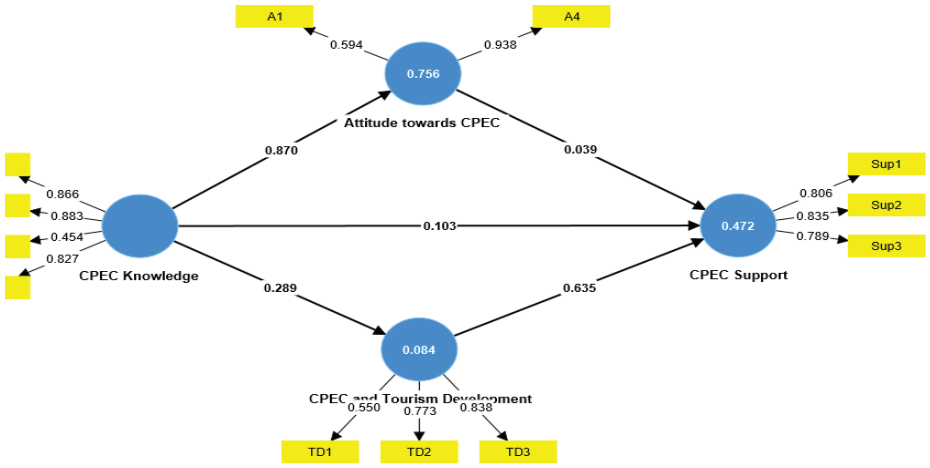


Table 4 shows two indirect effects of CPEC knowledge on CPEC support. The first path is the attitude towards CPEC, and the second is CPEC and tourism development. For the first path, the standard coefficient is 0.034, the standard deviation is 0.061, and the t-value is 0.55. The result indicates no mediation effect between CPEC knowledge and CPEC support through attitude towards CPEC. In other words, attitude towards CPEC does not mediate the relationship between CPEC knowledge and CPEC support. The statistical values for the second path

indicate a mediation effect between CPEC knowledge and CPEC support through CPEC and tourism development. It explains that tourism development act as a mediator in the relationship between CPEC knowledge and CPEC support. These findings suggest that CPEC knowledge indirectly affects CPEC support through tourism development.

Discussion and the Way Forward

This study assessed how the impact of residents' knowledge of CPEC on CPEC supports their perception of tourism development in the region. The study investigated the influence of attitudes toward CPEC, CPEC Knowledge, and CPEC and Tourism Development on CPEC support from an individual resident's perspective; therefore, the data is collected from the individuals living in the areas that would be settled along the CPEC route in Gilgit-Baltistan region. The research paper presents the empirical data on the relationship between CPEC knowledge and attitude towards CPEC collected from residents of the Gilgit-Baltistan region living where the CPEC route is planned. However, previous studies have tried to unleash the importance of CPEC, explicitly analyzing the possible impacts of cultural tourism on the local culture and the host community's well-being (Baig et al., 2022). Another study conducted in the same region investigated the trickle-down effects of the CPEC route, using 'tourism' as a mediator between CPEC, well-being, and asset holdings. The study found a positive and significant relationship with tourism as a moderator.

The study's findings in Tables 3 and 4 aimed to investigate the impact of CPEC knowledge, attitude towards CPEC, and CPEC and tourism development on CPEC support in Pakistan. The results indicate that greater knowledge of CPEC and its potential impact on tourism development can lead to a more positive attitude towards CPEC and greater support for it. These findings are consistent with previous research suggesting that knowledge and awareness of a project can positively influence public support (Chaudhry et al., 2018; Wang et al., 2019). The study's findings suggest that having a positive attitude towards CPEC only sometimes equates to support for the project, as previous research has also shown that attitude may not strongly predict behavior (Ajzen, 1991). Thus, it is important to consider additional factors like economic benefits when assessing public support for large development projects like CPEC.

The findings in Table 4 indicate that tourism development mediates the association between CPEC knowledge and CPEC support. This outcome aligns with studies showing that tourism development can positively influence public support for large-scale projects (Li et al., 2020). Furthermore, the results suggest that attitude towards CPEC does not serve as an indirect link between CPEC knowledge and CPEC support. This result corresponds with the conclusions of a previous study by Ye et al. (2018), which demonstrated that attitude is not always a mediating factor in the relationship between knowledge and behavior.

The study's results suggest that increasing knowledge and awareness of the CPEC and its potential impact on tourism development can positively influence public support for the CPEC. However, it is essential to consider other factors, such as economic benefits, when evaluating public support for large-scale development projects. Based on the results obtained, this study suggests the following policy recommendations:

1. To garner more significant support for the CPEC project, organizations and businesses should prioritize disseminating more information and educational resources regarding CPEC's potential impact on tourism development. Such efforts may enhance public knowledge of the project and potentially lead to increased support.

2. Organizations and businesses involved in CPEC must recognize that having a positive attitude towards CPEC does not always equate to support for the project. Hence, they should concentrate on initiatives that foster support, such as promoting the potential benefits of CPEC for tourism development.

3. The results suggest that tourism development is important in shaping attitudes towards CPEC and its ultimate success. Therefore, organizations and businesses involved in CPEC should prioritize initiatives that promote tourism development in the region.

4. Policymakers should prioritize initiatives that promote education and information dissemination about CPEC and its potential impact on tourism development. This may include investing in educational programs and campaigns to increase knowledge of CPEC among the general public.

5. To ensure the success of CPEC, policymakers should prioritize promoting tourism development in the region since it plays a crucial role in shaping attitudes towards CPEC.

6. The results suggest that attitude towards CPEC alone does not necessarily translate into support for the project. Therefore, policymakers should focus on initiatives that promote support for CPEC, such as promoting the potential benefits of CPEC for tourism development and addressing any concerns or challenges related to the project.

Suggested Citation

Muhammad, F., Ali, A., Idrees, M.,Hussain, A., Uddin, Z. (2023). Understanding Mountain Communities Knowledge and their Support for China-Pakistan Economic Corridor: The Mediating Role of Perceived Tourism Development. In *Silk Route Revisited: Essays and Perspectives on the China-Pakistan Economic Corridor and Beyond* (pp.73-83). CSC-KIU.

References

Alam, K. M., Li, X., & Baig, S. (2019). Impact of transport cost and travel time on trade under the China-Pakistan economic corridor (CPEC). *Journal of Advanced Transportation, 2019*.

Ali, A. (2022). Residents' attitude and perception toward the impact of mountain tourism in Gilgit-Baltistan Pakistan. *Journal of Public Affairs, 22*(3), e2577.

Ali, A., Ali, G., Shah, G. M., Shah, A., Karim, R., Joshi, S., . . . Khan, B. (2021). Factors shaping the economics of land use change in Gilgit Baltistan, Pakistan. *GeoJournal*, 1-16.

Ali, Z., & Sanauddin, N. (2022). The Perspective of Native People Regarding Developmental Projects of China Pakistan Economic Corridor (CPEC) in Gwadar, Balochistan. *The Pakistan Development Review*.

Arshad, M. I., Iqbal, M. A., & Shahbaz, M. (2018). Pakistan tourism industry and challenges: a review. *Asia Pacific Journal of Tourism Research, 23*(2), 121-132.

Asif, M., Zhiyong, D., Ullah, I., Nisar, M., Kalsoom, R., & Hussain, M. A. (2019). The study on China-Pakistan Economic Corridor (CPEC) as a language and culture changer in Pakistan. *Journal of the Punjab University Historical Society, 32*(1), 35-49.

Baig, S., & Hussain, H. (2020). Do shocks have permanent or transitory effects on tourist inflow? An application of stationarity test with structural breaks: evidence reexamined for Gilgit-Baltistan, Pakistan. *Asia Pacific Journal of Tourism Research, 25*(2), 120-130.

Baig, S., Hussain, I., & Yenigun, C. (2021). The Trickle-down Effects of China's Belt and Road Initiative: Empirical Evidence from China-Pakistan Economic Corridor. *Turkish Online Journal of Qualitative Inquiry, 12*(10), 2092-2107.

Baig, S., & Zehra, S. (2020). China-Pakistan economic corridor, governance, and tourism nexus: evidence from Gilgit-Baltistan, Pakistan. *Current Issues in Tourism, 23*(23), 2884-2889.

Bhat, A. A., & Mishra, R. K. (2021). Demographic characteristics and residents' attitude towards tourism development: A case of Kashmir region. *Journal of Public Affairs, 21*(2), e2179.

García, F. A., Vázquez, A. B., & Macías, R. C. (2015). Resident's attitudes towards the impacts of tourism. *Tourism Management Perspectives, 13*, 33-40.

Gursoy, D., Jurowski, C., & Uysal, M. (2002). Resident attitudes: A structural modeling approach. *Annals of tourism research, 29*(1), 79-105.

Jaafar, M., Rasoolimanesh, S. M., & Ismail, S. (2017). Perceived sociocultural impacts of tourism and community participation: A case study of Langkawi Island. *Tourism and Hospitality Research, 17*(2), 123-134.

Kang, S. K., & Lee, J. (2018). Support of marijuana tourism in Colorado: A residents' perspective using social exchange theory. *Journal of Destination Marketing & Management, 9*, 310-319.

Kanwal, S., Rasheed, M. I., Pitafi, A. H., Pitafi, A., & Ren, M. (2020). Road and transport infrastructure development and community support for tourism: The role of perceived benefits, and community satisfaction. *Tourism Management, 77*, 104014.

Khalil, S. (2017). CPEC: Mutually beneficial growth opportunities for China and Pakistan. *Pakistan Journal of Applied Economics, 27*(1), 139-144.

Mamirkulova, G., Mi, J., Abbas, J., Mahmood, S., Mubeen, R., & Ziapour, A. (2020). New Silk Road infrastructure opportunities in developing tourism environment for residents better quality of life. *Global Ecology and Conservation, 24*, e01194.

Nazneen, S., Hong, X., Jenkins, C. L., & Ud Din, N. (2022). China–Pakistan economic corridor (CPEC), tourism demand, and environmental concerns: Policy implications for sustainable tourism in Gilgit-Baltistan. *Journal of Public Affairs, 22*(3), e2600.

Nazneen, S., Xu, H., & Din, N. U. (2019). Cross-border infrastructural development and residents' perceived tourism impacts: A case of China–Pakistan Economic Corridor. *International Journal of Tourism Research, 21*(3), 334-343.

Shang, Y., Pitafi, A. H., & Rashid, R. M. (2022). Assessing the impact of community factors on local community support for tourism: an empirical investigation of the China-Pakistan-economic corridor. *Frontiers in Psychology*, 2241.

Shedayi, A. A., Xu, M., Gonalez-Redin, J., Ali, A., Shahzad, L., & Rahim, S. (2022). Spatiotemporal valuation of cultural and natural landscapes contributing to Pakistan's cultural ecosystem services. *Environmental Science and Pollution Research, 29*(27), 41834-41848.

Tournois, L., & Djeric, G. (2019). Evaluating urban residents' attitudes towards tourism development in Belgrade (Serbia). *Current Issues in Tourism, 22*(14), 1670-1678.

6

The CPEC Projects and the Entrepreneurial Opportunities in Pakistan

Zaigham Ali
https://orcid.org/0000-0002-7162-5361
Department of Management Sciences, Karakoram International University, GB

Introduction

Globalization is a process that the world has been quickly advancing toward a new era. Trains and highways link nearly every European country, and the continent's relaxed visa policies encourage people to travel freely for business, education, and leisure. There is a success with similar agreements in Asia, such as CPEC, between Pakistan and China. The projects under China Pakistan Economic Corridor (CPEC) promote higher living standards, ultimately reducing poverty. This is accomplished by reducing the development gap in urban and rural areas and local communities and providing access to various economic zones (Bhattacharya B.N et al., 2012). Ritzinger (2015) argues that in the current state of regional and global politics, the well-thought-out Chinese intention to spend more than US$60 billion in Pakistan through CPEC projects is of utmost significance. Boyce, (2017) endorsed the notion and claimed that the CPEC is a comprehensive combination of economic, industrial, infrastructure, and connectivity advances for Pakistan and China. Especially for Pakistan, CPEC plays a significant role in socioeconomic development. It is more than just a commerce channel between the two nations. Not just Pakistan and China but all the neighboring nations are significantly impacted by the CPEC project. For instance, this initiative might assist other surrounding countries, including India, Iran, Afghanistan, Bangladesh, and the Middle East (Khawaja et al., 2018)identify the environmental … through personal communication with the …","author"Pakistan is now dealing with infrastructure, security, education system, economy, and unemployment issues. These difficulties have an impact on both the corporate climate in general and the nation's overall development. Then, government officials and policymakers create a wide range of development programs to speed up economic growth. The CPEC is one such plan which is a multifaceted development initiative aimed at improving local connectivity between China and Pakistan. This was supposed to be extended to Europe via road building, electricity infrastructure, and other initiatives. Officials from both countries contend that developing CPEC projects will help Pakistan overcome its major problems (Khawaja et al., 2018). Preliminary Environmental Impact Assessment (EIA. The CPEC includes energy, economic, educational, and infrastructure development projects expected to transform Pakistan (Kanwal, Chong et al., 2019). As a result, CPEC will boost the region's economy, create jobs, and raise education.

In many aspects, CPEC is beneficial for Pakistan. The significance of CPEC on business prospects is the primary focus of this chapter. However, small businesses require fewer human and physical resources and comparatively less money.

They give more money and are easier to manage from an organizational perspective, which amplifies the economic impact. Smaller economic organizations with regulated infrastructures are economically prudent, especially for developing countries. CEPC provides initiatives to boost entrepreneurial prospects in Pakistan, including processing dried fruit, hotels, restaurants, petrol stations, tourism, construction, retail, transportation, salt refining, educational institutions, and seafood processing.

Entrepreneurial Opportunities and Mega Projects

There is numerous research on the significance of CPEC to Pakistan's development. A study specifically highlighted the significance of CPEC to the local population in terms of education, business, and employment prospects (L. Ali et al., 2017). Kanwal, Chong, et al. (2019) studied the CPEC project and revealed that local community support for developing CPEC projects was deemed advantageous to them. In a similar study, Raza et al. (2018) highlighted the economic benefits of CPEC for Pakistan's economy. However, completing CPEC will revolutionize Pakistan's socio-economic conditions and the region's demographics. Due to its cross-country links, infrastructure, and increased economic activity, this initiative is predicted to open business opportunities that assist in eradicating poverty for 1.1 million people (Akhtar et al., 2021). This chapter does not analyze the effects of CPEC on Pakistan as a whole but instead on the project's effects on the growth of local entrepreneurs.

The definition of entrepreneurial intent is a mental condition that directs a person's attention and activities toward self-employment rather than employment within an organization (Bird, 1988). In this research, the term "entrepreneurial intentions" refers to the drive and interest of an individual to launch new businesses in Pakistan due to the country's participation in the China-Pakistan Economic Corridor (Z. et al., 2020). Many believe entrepreneurship is the primary reason for the country's economic growth. It is a lucrative new market to tap into. In particular, an entrepreneur sees and seizes chances in the changes that could eventually lead to the launch of new businesses (Kirzner, 1997). Kirzner (1997) refers to the entrepreneurial literature argues that once an entrepreneur perceives anything as a possible business opportunity, he will investigate market opportunities to establish a viable business model. For example, the Gilgit-Baltistan region is well-known for its dried fruits; CPEC would allow local entrepreneurs to bring these products directly to Chinese and Pakistani markets through the Xinjiang province in China.

The Reasons for the Lack of Business Opportunities in Pakistan

It is a well-established fact that there are always abundant opportunities for a country to manufacture goods and services for consumption and export. These opportunities may be found in both the private and public sectors. Pakistan has plentiful natural resources and an advantageous location. The slow expansion of minor company prospects has provided opportunities for small enterprises to grow, be sustainable, be compatible, and be competitive (GOP, n.d.). It depends upon how the government handles this process, its execution, and its completion on time. Regardless of the future benefits of CPEC for Pakistan, it is evident that the country is currently confronted with various obstacles due to its developing

country status, including issues with technology, unskilled labor, high taxation, and bad housing (M.lousy Khan & Ahmed, 2007). This makes it challenging for many entrepreneurial opportunities to develop. Several factors cause a paucity of entrepreneurship opportunities in Pakistan. One of the long-known reasons is the insufficient security environment for the commercial world (Feng, 2018). However, the Pakistani government has adopted several security steps recently, improving security. Aside from security concerns, several other obstacles are impeding the growth of the business possibility.

The country's energy constraint is one of the major factors influencing its business potential and development. Pakistan is a developing Asian country with a booming population and economy, which has resulted in tremendous energy consumption. Pakistan's energy economy relies heavily on fossil fuels for primary and secondary energy sources. Indigenous energy supplies cannot meet escalating energy demand (Lin & Raza, 2020). Pakistan's energy crisis is one of the country's biggest problems, limiting business opportunities for both domestic and foreign investors (Y. Ali et al., 2018). However, energy shortages in industrial areas decreased from 10 to 12 hours per day and about 6 to 2 hours per day in residential areas between 2012-13 and 2015-16 (Shafqat & Shahid, 2018). This issue, meanwhile, was still seen to be the main hindrance to the nation's sluggish entrepreneurial development.

In addition, the way public infrastructure makes the market accessible determines the lucrative investment opportunities for both the private and public sectors (McCartney, 2018). There is strong evidence that Pakistan's infrastructure is underdeveloped compared to other significant developing nations (Loayza & Wada, 2012). Due to the sluggish economic conditions, there are not enough standardized established infrastructure projects to provide people with economic opportunities to generate entrepreneurial chances. Pakistan's inadequate transport infrastructure hinders its efforts to improve its social and environmental conditions and internal and foreign trade (Ernesto et al., 2014). According to previous studies, the hos infrastructure development initiatives significantly influence the host community by providing easy access to facilities and other business opportunities.

Industrialization is essential for the economic development of developing nations, which can create thriving commercial prospects. As demonstrated by history, developed countries broke the cycle of poverty by industrializing rather than focusing on agriculture or the extraction of national resources. A nation producing and exporting raw materials cannot attain rapid economic growth. The restricted and changeable market for agricultural products and commodities, coupled with natural unpredictability, impedes economic development and adds to an unstable economy. Industrialization is the most successful strategy for achieving economic stability (Mudassir, 2019). Pakistan is an agrarian nation that has always been unable to prosper solely through agriculture. An assessment of Pakistan's industrial performance reveals that despite a promising start in the 1960s, the industry failed to become the engine of economic growth and provided the population with the expected self-employment options (Ernesto et al., 2014). A nation's industrialization policies and procedures create the framework for small and large firms operating in various industries, resulting in bottom-up industrialization(Ito, 2017). Unfortunately, M. A. Khan & Ahmed (2007) found few commercial pros-

pects in Pakistan because it is one of the least industrialized markets in the area. The country must successfully industrialize to accommodate Pakistan's growing geographical development and create attractive business prospects. The country's failure to provide a hospitable environment for entrepreneurial activity to set the industrialization process in motion is a common theme throughout many different views. Entrepreneurship initiatives, in general, are significant components of regional mic development programs aimed at alleviating poverty and limiting livelihood opportunities in neglected rural communities (Walzer, 2011). Although employing everyone in the nation is impossible, corporate cultures can be cultivated to support self-employment. To industrialize, a country must make revolutionary changes to bring large-scale projects like CPEC.

This study uncovers many additional problems that have contributed significantly to Pakistan's deteriorating business climate. The factors above are presented to elucidate the country's status can help clarify the significance of megaprojects like CPEC for examining the commercial potential in Pakistan. In the following paragraphs, we will discuss the CPEC project and the business potential in Pakistan in greater detail.

CPEC Project and Entrepreneurial Opportunity

Infrastructure Projects and Entrepreneurial Opportunities

Transportation networks like roads and railroads are crucial to expanding commerce and the economy. Investment in railway lines to connect and construct economic zones along the Khuzdar-Bisma, Gwadar-Khosab, Karachi-Lahore Highway, and Karakorum Motorway would be made possible by CPEC initiatives (S. Hussain et al., 2021).

The accessibility of cities is a factor that attracts entrepreneurs to a specific area (Snieska & Zykiene, 2015). Reports indicate that as the CPEC progresses, Pakistani cities will become more contemporary and appealing, and locals will have a greater access to the market due to increased geographical connectivity (Abid & Ashfaq, 2015). By developing the CPEC route, rural communities will have better access to major cities (L. Ali et al., 2018; Kanwal, Younis, et al., 2019). The CPEC route would connect rural areas to large urban centers, providing farmers with an easy way to raise their income by selling their products in a more global market (L. et al., 2018). For example, Balochistan only contributes a relatively small amount to Pakistan's economy; it has been unable to realize its potential fully. Two major issues were the region's undeveloped population and the difficulty of its natural topography. As a result of the CPEC's western route being built, real estate prices in the area have risen dramatically. Along the CPEC's finished segments, locals have started building hotels, stores, and houses. In addition, the development of industries such as those involved in producing textile and garment processing equipment and those involved in producing household goods and services were all part of this endeavor (Taj et al., 2018). The undeveloped Balochistan and Southern KPK regions will have access to the national markets because of the CPEC Western Road. The residents living near the route can access a broader market for mining, cattle, poultry, horticulture, fishery, and other products. This would enable manufacturing in the nearby industrial parks, considerably cut shipping costs, the number of perishables and waste, and provide cold

chains and storage facilities (N. Khan et al., 2018). Similarly, the Gilgit-Baltistan region is renowned for the export of fresh fruit, including cherries, apricots, and apples. The infrastructure of CPEC will change the game by providing local entrepreneurs with new commercial prospects. Local firms can treble their sales due to considerable reductions in transportation costs. Currently, fruit is sent to China via Dubai; however, it would be faster and less expensive if they were shipped via Xinjiang.

CPEC and Tourism Entrepreneurial Opportunities

The CPEC projects have benefited the locals in many ways, raising their level of life through improvements to the region's transportation, infrastructure, and tourism industry. Tourism allows foreign and domestic business owners to attract investment and foreign exchange and develop micro, small, and medium-sized firms (Mshenga & Owuor, 2009). The Indus Valley Civilization's ruins at Mohenjodaro, Harappa, and Taxila, as well as the Himalayan hill towns that draw people interested in winter sports, are just a few of the country's attractions. The summits exceeding 7000 meters in Pakistan draw adventurers and mountaineers worldwide, especially K2. The Hunza and Chitral valleys, where a small pre-Islamic Animist Kalash people community can be found, and other historic structures and strongholds can be found in Pakistan's north. The romance of the storied Khyber Pakhtunkhwa province is timeless and legendary; the historic city of Lahore, Pakistan's cultural Centre, has many examples of Mughal architecture, including the Badshahi Masjid, Shalimar Gardens, Tomb of Jahangir, and the Lahore Fort; and the Punjab province is home to the site of Alexander's battle on the Jhelum River (S. et al. et al., 2017). Tourism development is directly tied to establishing infrastructure since tourists typically select their mode of transportation based on local travel requirements, such as road, rail, plane, water, etc. (Yu, 2016). According to Snieska & Zykiene (2015), entrepreneurs in the tourism industry evaluate a site for investments based on several factors, including market accessibility, infrastructural development, and connectivity to other cities. The CPEC project makes highways and trunk roads available to small and medium-sized communities, facilitating access to Urban's marketplaces. Pakistan's small businesses will prosper and compete nationally and internationally (Kanwal, Younis, et al., 2019).

According to Baig et al. (2020), the expansion of CPEC increases economic activities, particularly the exponential increase in tourist flows; there are more prospects for growth and increasing competition between small and medium-sized businesses in tourist destinations. These destinations benefit entrepreneurs since they enable diverse sectors of the tourism industry to cater to the demands of tourists and thereby contribute to the tourism experience (Ryan et al., 2012). With the growth of tourism, other industries connected to it are likely to follow suit, especially those in the hotel and restaurant sectors. By including local fruits, vegetables, and vegetables on the restaurant menu, businesses could be developed, increasing their significance (Adhikari et al., 2017). Additionally, there are a variety of tourism-related businesses that have the potential to significantly boost the local cottage industry, such as those that sell handicrafts and traditional souvenirs, wood carvings, blankets, shawls, embroidery, carpets, baskets, gemstones, and many more (Rasul et al., 2019).

Fiber Optics and Entrepreneurship Opportunities

The Pakistan-China fiber optic project was completed, which stretched 820 km from Rawalpindi to Khunjerab. The project would open up a new communication channel between Pakistan and China. The goal is to encourage using new technologies in the GB (A. A. Khan et al., 2020). E-commerce would enable inhabitants of Gilgit-Baltistan to buy and sell goods and services straight across the border. E-commerce will benefit immensely from the ease with which CPEC's fiber project would get items or services to market. This will be achievable only by transmitting high-speed internet services via CPEC's fiber optic network and the corresponding 3G/4G technologies. The fiber optic network would give individuals in underserved areas access to cutting-edge 3G and 4G broadband internet (N. Khan et al., 2018). There is a growing number of tech-savvy businesspeople in Pakistan, which gives the country a significant opportunity for innovation I.T. specialists from Pakistan are well-known across the globe for their innovative thinking outside of the box in the field of software development. This will enhance the number of employment and internet-based entrepreneurial opportunities available to young people who use the internet to expand their firms. For instance, some platforms offering entrepreneurial prospects include freelancing, e-commerce, online business transactions, digital marketing, online consulting, contact centers, and stock investing (Sudweeks & Romm, 2000).

Energy Project and Entrepreneurship Opportunities

The literature has long acknowledged energy as a primary engine of economic growth worldwide, especially for developing countries at this stage of their development (Pokharel, 2007). Investments by the governments in developing countries' electrical power supply them substantial profits, but they may pave the way for private companies to make money in the manufacturing sector (Hirschman, 1958). The target to generate electricity and gas in FY 2016–17 was 12.5%, but only 3.5% was achieved, according to the Economic Survey of Pakistan (2016). This demonstrates a massive disparity between the predicted target and the actual performance of energy generation on industrial advancement. Finally, it will impact production and industrial development (Junejo & Khoso, 2018). The industrial sector is the second largest in terms of growth in Pakistan. It directly and indirectly, supports the other two critical economic drivers, which include agriculture and services. The evolution of the industrial sector during the past three years is viewed as excellent and indicative of substantial long-term expansion. Government initiatives to increase tax income and enhance employment opportunities for rural and urban workers depend on the industrial sector. This sector comprises mining and construction subsectors (J unejo & Khoso, 2018).

Electricity is often used as a metaphor for the conveniences of contemporary life in public debate. Today, electricity is vital to the community's economic and social well-being and helps preserve the natural world. Prasad & Dieden (2007) conducted a household survey on the development of small- and medium-sized enterprises (SMEs) between 1995 and 2004 and found that company activity increased by 40% to 53% as a result of the electricity grid's extension, with the income of those already connected. In the same vein, it encourages the start-up of microbusinesses by women and young people, increasing their earning potential

(UNDP, 2014). Some contend that the primary element, however, is the power plant's location because it defines the distances at which significant amounts of energy are required and whether or not transmission lines are easily accessible (Shaalan, 2003). Currently, China is providing seed money for 22 separate energy projects that are part of CPEC. In light of the wide variety of energy projects and capacities, officials are considering how to allocate the construction of new power plants (Akber, 2015). However, it is considered that CPEC can assist in resolving the energy crisis provided the energy projects are implemented on schedule and within a reasonable short-term period (Avais et al., 2016). This will increase capacity by over 10,000 MW (McCartney, 2022). The local manufacturing sector, both large and small, benefits from this stable and affordable energy source, which can lead to greater output and more jobs.

Special Economic Zone and Entrepreneurial Opportunities

Pakistan wants to start a new era of industrialization with financially stable, socially visible, and potentially productive industries. These industries include high-end textiles, telecom, engineering, knowledge-based manufacturing, sea products, and advanced storage facilities for fruits and vegetables. These industries will be based in Special Economic Zones, either with Chinese companies or on their own (SEZs) (E. et al., 2020). The government has unveiled several initiatives, such as the creation of Special Economic Zones (SEZ) and Export Processing Zones (EPZ), to encourage entrepreneurial growth in areas associated with the CPEC (Ahmad et al., 2018). The government of Pakistan is proposing to create 29 industrial parks, 21 mineral zones, and SEZs. The most advanced of these projects is the 9-kilometer-long Gwadar Special Economic Zone (SEZ), which will house mining and mineral processing, food processing, agricultural, livestock, and energy industrial facilities and is projected to be completely operational by the end of 2017 (Singh, 2017).

As a result of the presence of SEZs, there should be an increase in both internally and externally sparked entrepreneurial activity, the formation of inter-business linkages between established and new businesses, and, ultimately, the reduction of unemployment through the production of new and better employment opportunities (Ambroziak, 2015). Based on household survey data obtained from Chinese counties between 2010 and 2018, Sun et al. (2022) study found that hosting an SEZ in a county increases the likelihood of residents becoming entrepreneurs by 2.8%, comparable to a 31% rise in entrepreneurial rates. It was also discovered that having SEZ had a more significant entrepreneurial effect, increasing the propensity of residents to establish a business by 3.9%. This equates to an increase in entrepreneurial activity of 43.3%. Similarly, micro-enterprises data analysis by Lu et al. (2019) shows that China's SEZs are good places to start a new business. Similar results have been seen in India, where location-based zone programs have facilitated the growth of local economies by encouraging the establishment of new businesses (Chaurey, 2017). In the same way, the CPEC includes many economic zones that will help local businesses (Wolf, 2018). In particular, expanding the CPEC would provide various new opportunities for Pakistani entrepreneurs (Rehman et al., 2018). This can provide employment opportunities for 7 (m) people, with an annual growth rate of 2.5% (Dawn, 2020).

Conclusion

Pakistan is in a strategically important location on the world map. Due to Pakistan's strategic location, it is of great importance in the region. It will become significantly more important on an economic and commercial level after the completion of the China-Pakistan Economic Corridor (CPEC).

The CPEC project includes a range of infrastructure development such as power plants, transportation networks, road infrastructures, optic fiber, and special economic zones are the significant parts of the project. These projects offer accessibility and improvement of cities, and the local transportation system will shift business owners' mindsets. The most essential part of CPEC is the development and expansion of the Port of Gwadar. This port is being developed into a significant regional and international hub for trade and commerce and will open new opportunities for Pakistani businesses. CPEC is a massive infrastructure and investment project that has the potential to provide significant entrepreneurial opportunities for Pakistan. CPEC will also boost local economies through increased manufacturing, tourism, and agriculture investment. Along the route of CPEC, national and local small businesses have the potential to establish enormous investment opportunities, particularly in the tertiary sector, transportation, tourism, construction, energy, education, restaurants, hotels, mining, agriculture, logistics, and livestock, amongst other areas. The presence of major Chinese corporate organizations will benefit local small enterprises, allowing them to grow through the establishment of joint ventures and various business collaboration projects. Small enterprises will have easier access to the most cutting-edge technologies through increased commercial partnerships with Chinese firms.

As a result, Pakistan will have more small enterprises, which will enhance the number of jobs created, the flow of goods and services, and the appeal of Pakistan to foreign investors. It opens new markets and corporate expansion opportunities. The new trade and investment ties between China and Pakistan could also open a new export market for Pakistani companies. Overall, CPE has the potential to boost economic growth and create new opportunities for entrepreneurs in Pakistan. However, the impact will depend on how the project is implemented and the broader economic and political context. In short, CPEC is an important project for the economic development of Pakistan and could be an essential engine for entrepreneurial growth in the years to come.

Suggested Citation

Ali, Z. (2023). The CPEC Projects and the Entrepreneurial Opportunities in Pakistan. In *Silk Route Revisited: Essays and Perspectives on the China-Pakistan Economic Corridor and Beyond* (pp.84-97). CSC-KIU.

References

Abid, M., & Ashfaq, A. (2015). CPEC: Challenges and opportunities for Pakistan. *Journal of Pakistan Vision*, *16*(2), 142–169.

Adhikari, L., Hussain, A., & Rasul, G. (2017). We are tapping the potential of neglected and underutilized food crops for sustainable nutrition security in the mountains of Pakistan and Nepal. *Sustainability*, *9*(2), 291.

Ahmad, B., Naz, F., & Majid, J. (2018). Growth Prospects of SMEs in CPEC Perspective. *Global Management Journal for Academic & Corporate Studies*, *8*(1), 101–111.

Akber, A. L. I. (2015). China Pakistan Economic Corridor (CPEC): Prospects and challenges for regional integration. *International Journal of Social Sciences and Humanity Studies*, *7*(1), 1–15.

Akhtar, N., Khan, H. U., Jan, M. A., Pratt, C. B., & Jianfu, M. (2021). *Exploring the Determinants of the China-Pakistan Economic Corridor and Its Impact on Local Communities*. https://doi.org/10.1177/21582440211057127

Ali, L., Mi, J., Shah, M., Khan, A., & Imran, M. (2017). *Transport culture akin to the China-Pakistan economic corridor*. *36*, 381–396. https://doi.org/10.3233/HSM-17111

Ali, L., Mi, J., Shah, M., Shah, S. J., Khan, S., Ullah, R., & Bibi, K. (2018). Local residents' attitude towards road and transport infrastructure (a case of China Pakistan economic corridor). *Journal of Chinese Economic and Foreign Trade Studies*.

Ali, S. A., Haider, J., Ali, M., Ali, S. I., & Ming, X. (2017). Emerging Tourism between Pakistan and China: Tourism Opportunities via China-Pakistan Economic Corridor. *International Business Research*, *10*(8), 204. https://doi.org/10.5539/ibr.v10n8p204

Ali, Y., Rasheed, Z., Muhammad, N., & Yousaf, S. (2018). Energy optimization in the wake of China Pakistan Economic Corridor (CPEC). *Journal of Control and Decision*, *5*(2), 129–147.

Ambroziak, A. A. (2015). Theoretical aspects of regional intervention. *Warsaw School of Economics Press Warsaw 2015*, 13.

Asomani-Boateng, R., Fricano, R. J., & Adarkwa, F. (2015). Assessing the socio-economic impacts of rural road improvements in Ghana: A case study of transport sector program support (II). *Case Studies on Transport Policy*, *3*(4), 355–366.

Avais, M. M. A., Shaikh, M. S., Mahesar, H. A., & Memon, M. F. (2016). China-Pak economic corridor: social analysis for Pakistan. *The Government-Annual Research Journal of Political Science.*, *5*(5).

Baig, S., Qasim, M., Xuemei, L., Alam, K. M., Rachapaettayakom, P., Wiriyapinit, M., Cooharojananone, N., Ricardo, S., Sousa, D. O., Vieira, W., Pereira, C., Zanini, R. R., & Woodworth, A. W. P. (2020). *ScienceDirect Micro Entrepreneurship : Sources of Finance & Related ScienceDirect Micro Entrepreneurship : Sources of Finance & Related Constraints*. *5671*(December 2013), 1–19.

Bhattacharyay, B.N, Kawai, M., & Nag, R. (2012). *Infrastructure for Asian connectivity*. Edward Elgar Publishing.

Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. *Academy of Management Review*, *13*(3), 442–453.

Boyce, T. (2017). The China-Pakistan economic corridor: Trade security and regional implications. *SANDIA Report SAND 2017*, *207*.

Chaurey, R. (2017). Location-based tax incentives: Evidence from India. *Journal of Public Economics*, *156*, 101–120.

Dawn. (2020). *Parties vow to ensure CPEC progress, guard it against threats*. https://www.dawn.com/news/1575572

Ernesto, S.-T., Biller, D., Nabi, I., Ortolano, L., Dezfuli, G., Afzal, J., & Enriquez, S. (2014). Revitalizing Industrial Growth in Pakistan. In *World Development Group*.

Feng, S. (2018). *The Analysis of FDI ' s impact on Foreign Trade between China and Pakistan*. *58*(Isbcd), 62–65.

GOP. (n.d.). *CPEC offers opportunities for SMEs*. Retrieved January 3, 2023, from https://cpec.gov.pk/news/9

Hensher, D. A. (1998). The imbalance between car and public transport use in urban Australia: why does it exist? *Transport Policy*, *5*(4), 193–204.

Hirschman, A. O. (1958). *The strategy of economic development.* New Haven, Conn: Yale University Press.

Hussain, E., & Rao, M. F. (2020). China–Pakistan economic cooperation: The case of special economic zones (SEZs). *Fudan Journal of the Humanities and Social Sciences*, *13*(4), 453–472.

Hussain, S., Rafiq, M., Quddus, A., Ahmad, N., & Pham, T. P. (2021). China-Pakistan Economic Corridor: Cooperate Investment Development And Economic Modernization Encouragement. *Journal of Contemporary Issues in Business and Government*, *27*(1), 2021. https://cibg.org.au/96

Ito, A. (2017). Bottom-Up Industrialization in the People's Republic of China: A Case Study of Industries Producing Small Things in Zhejiang. *Studies in Economic History*, 245–281. https://doi.org/10.1007/978-981-10-3752-8_13/COVER

Junejo, I., & Khoso, J. R. (2018). Impact of Electricity crisis on industrial growth in Pakistan: A multiple regression analysis approach. *Int J Acad Res Bus Soc Sci*, *8*, 851–862.

Kanwal, S., Chong, R., & Pitafi, A. H. (2019). China–Pakistan economic corridor projects development in Pakistan: Local citizens benefits perspective. *Journal of Public Affairs*, *19*(1), e1888.

Kanwal, S., Younis, A., Pitafi, A. H., & Nadeem, M. A. (2019). *China – Pakistan Economic Corridor (CPEC) development projects and entrepreneurial potential of locals*. *March*. https://doi.org/10.1002/pa.1954

Khan, A. A., Baig, S. M., & Muhammad, F. (2020). China-Pakistan Economic Corridor, ICTs, and Digital Economy: A Cross-District Analysis of Baseline Data for Gilgit-Baltistan. *Global Regional Review*, *V*(I), 207–221. https://doi.org/10.31703/grr.2020(v-i).24

Khan, M. A., & Ahmed, A. (2007). Foreign aid—blessing or curse: Evidence from Pakistan. *The Pakistan Development Review*, 215–240.

Khan, M., & Ahmed, T. (2019). Terrorism, military operations and farmer's income in Waziristan (Pakistan). *Journal of Policy Modeling*, *41*(4), 623–635.

Khan, N., Ahmad, R., & Xing, K. (2018). China Pakistan Economic Corridor (CPEC): Regional Development, Employment Opportunities, and Policy Challenges. *Global Political Review*, *3*(1), 12–23. https://doi.org/10.31703/gpr.2018(iii-i).02

Khawaja, M. A., Saeed, S., & Urooj, M. (2018). Preliminary Environmental Impact Assessment (EIA): Study of China-Pakistan Economic Corridor (CPEC) Northern Route Road Construction Activities In Khyber Pakhtunkhwa (KPK), Pakistan. *Environmental Impact Due to Road Construction Process, Equipment, and Material Use*, 1–16.

Kirzner, I. M. (1997). Entrepreneurial discovery and the competitive market process: An Austrian approach. *Journal of Economic Literature*, *35*(1), 60–85.

Lin, B., & Raza, M. Y. (2020). Coal and economic development in Pakistan: A necessity of energy source. *Energy*, *207*, 118244.

Loayza, N., & Wada, T. (2012). *Public infrastructure trends and gaps in Pakistan*. World Bank, Washington, DC.

Lu, Y., Wang, J., & Zhu, L. (2019). Place-based policies, creation, and agglomeration economies: Evidence from China's economic zone program. *American Economic Journal: Economic Policy*, *11*(3), 325–360.

McCartney, M. (2018). The China-Pakistan Economic Corridor (CPEC): Considering Contemporary Pakistan through Old-Fashioned Economics and Historical Case Studies. *The Lahore Journal of Economics*, *23*(2), 19–48. https://doi.org/10.35536/lje.2018.v23.i2.a2

McCartney, M. (2022). The China-Pakistan Economic Corridor (CPEC): Infrastructure, Social Savings, Spillovers, and Economic Growth in Pakistan. *Eurasian Geography and Economics*, *63*(2), 180–211. https://doi.org/10.1080/15387216.2020.1836986

Mshenga, P. M., & Owuor, G. (2009). Opportunities for Micro and Small Scale Businesses in the Tourism Sector: The Case of the Kenya Coast1. *KCA Journal of Business Management*, *2*(2).

Mudassir, M. (2019, November). *Impact of industrial operations on the economy of Pakistan*. https://www.thenews.com.pk/print/571495-impact-of-industrial-operations-on-economy-of-pakistan

Pokharel, S. (2007). An econometric analysis of energy consumption in Nepal. *Energy Policy*, *35*(1), 350–361.

Prasad, G., & Dieden, S. (2007). Does access to electricity enable the uptake of small and medium enterprises in South Africa? *Proceedings of the Fifteenth Conference on Domes_tic Use of Energy [Internet] (Pp. 1–9) Domestic Use of Energy (DUE);*

Rasul, G., Saboor, A., Tiwari, P. C., Hussain, A., Ghosh, N., & Chettri, G. B. (2019). Food and Nutrition Security in the Hindu Kush Himalaya: Unique Challenges and Niche Opportunities. In P. Wester, A. Mishra, A. Mukherji, & A. B. Shrestha (Eds.), *The Hindu Kush Himalaya Assessment Mountains, Climate Change, Sustainability and People* (pp. 301–3033). Springer Open.

Raza, H., Mohiuddin, Z. A., Zaidi, S. S. Z., & Osama, A. (2018). CPEC: Pakistan-China Cordial Ties-A Boost to Pakistan's Economy. *Journal of Accounting, Business and Finance Research*, *2*(1), 1–6.

Rehman, A. U., Hakim, A., Khan, K., & Khan, I. U. (2018). Role of CPEC in the Development of Trade, Transport, and Economy of Pakistan. *Romanian Journal of Transport Infrastructure*, *7*(1), 77–92. https://doi.org/10.2478/rjti-2018-0005

Rehman, Z. U., Ahmed, D., Ali, D., Ahmad, S., & ... (2020). Entrepreneurial Factors Affecting Perceived Socioeconomic Success in One Belt One Road Initiative–A Study of China-Pakistan Economic Corridor. *International Journal …*, *11*(9), 1110–1124. https://doi.org/10.34218/IJM.11.9.2020.104

Ritzinger, L. (2015). The China-Pakistan Economic Corridor Regional Dynamics and China's Geopolitical Ambitions. *The National Bureau of Asian Research, Washington, D.C. Pg. No. 01*.

Ryan, T., Mottiar, Z., & Quinn, B. (2012). The Dynamic Role of Entrepreneurs in Destination Development. *Tourism Planning and Development*, *9*(2), 119–131. https://doi.org/10.1080/21568316.2011.630747

Shaalan, H. E. (2003). Generation of electric power. *Handbook of Electric Power Calculations*, 1–38.

Shafqat, D., & Shahid, S. (2018). *China Pakistan Economic Corridor: Demands, Dividends, and Directions*. Centre for Public Policy and Governance.

Singh, S. (2017). China- Pakistan Economic Corridor (CPEC), Its Impacts On Pakistan Economy. *International Journal of Innovative Research and Advanced Studies*, *4*(7), 1–9.

Snieska, V., & Zykiene, I. (2015). City attractiveness for investment: characteristics and underlying factors. *Procedia-Social and Behavioral Sciences*, *213*, 48–54.

Sudweeks, F., & Romm, C. T. (2000). *Doing business on the Internet: opportunities and pitfalls*. Springer Science & Business Media.

Sun, W., Wu, J., & Yang, H. (2022). Increasing entrepreneurs through green industrial parks: evidence from special economic zones in China. *The Annals of Regional Science*, 1–26.

Taj, M. K., Liang, Z., & Zafar, U. (2018). CPEC Impact on Balochistan Economy. *International Journal of Research and Innovation in Social Science*, *II*(IX), 69–70.

UNDP. (2014). *Integrated Sustainable Rural Development: Renewable Energy Electrification and Rural Productivity Zones* (Issue 8).

Walzer, N. (2011). *The illusions of entrepreneurship*. New Haven and London, Yale University Press, Taylor & Francis.

Wolf, S. O. (2018). China–Pakistan economic corridor (CPEC): Regional cooperation in the wider South Asian region. *China's global rebalancing and the new silk road* (pp. 85–100). Springer.

Yu, M. (2016). Research on the impact of infrastructure construction on tourism industry: evidence from the "Wuhan-Guangzhou high-speed rail." *Open Journal of Social Sciences*, *4*(01), 126.

7

Urbanization And Energy Security in Pakistan: Lessons from Chinese Experiences

Tahir Mahmood
https://orcid.org/0009-0001-6717-9485
A.G.N.Kazi State Bank of Pakistan-Memorial Chair, KIU, Gilgit-Baltistan, Pakistan

Introduction

This chapter highlights the importance of rapid urbanization and energy security in Pakistan. Energy security is the energy supply available to meet the energy demand. This indicates energy insecurity when demand/consumption exceeds supply/production. Here, electricity consumption and generation gap are used as proxies for energy security. Rapid urbanization and economic growth are the main causes of energy insecurity in developing countries. According to research by (Cherp & Jewell, 2014), urbanization is the population growth in urban areas brought on by natural growth and migration from rural areas. Unplanned urbanization may compromise the nation's energy security. A 2017 population census reveals that of many communities have relocated from rural to urban locations. In the 2017 census, 75.58 million people were living in urban areas, or around 37% of the total population. In the 1998 census, this percentage was 33%. Therefore, 37% or so of Pakistan's population lives in metropolitan areas. Pakistan's urban population is overgrowing because of communities moving there in pursuit of services, amenities, and employment. Urban regeneration could make cities growth-oriented and livable, but this urban regeneration requires energy security to sustain economic growth.

Figure 1 shows that urban population, population density, and population living in large cities are increasing rapidly where economic growth, and employment in industrial and employment services sectors is volatile. Therefore, urbanization and economic growth do not go together in the case of Pakistan.

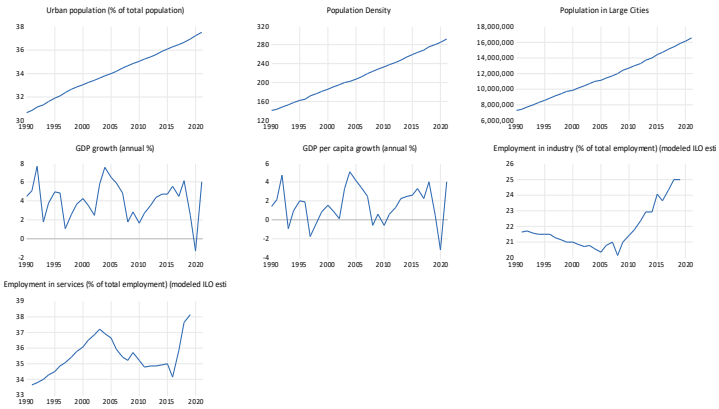


Figure 1: share of the urban population, population density, the population living in large cities and economic growth, employment in the industrial sector and employment in the services sector Source Author's calculation based on WDI

China, on the other hand, is seeing tremendous urbanization and economic expansion. Millions of individuals have been freed from poverty thanks to this composition. China has successfully developed institutions and programs that may promote urbanization and long-term economic growth. Another study by (Bai, Chen, & Shi, 2012) asserted that the critical driver of overall economic success and growth in China was urbanization's spillover impact on other areas. The study also discovered that more significant, wealthier cities generate more income than smaller, poorer ones. The detrimental externalities of China's rapid urbanization were emphasized in research by (J. Chen, 2007). Figure 2 demonstrates the favorable correlation between employment in the industry and services sectors and urbanization.

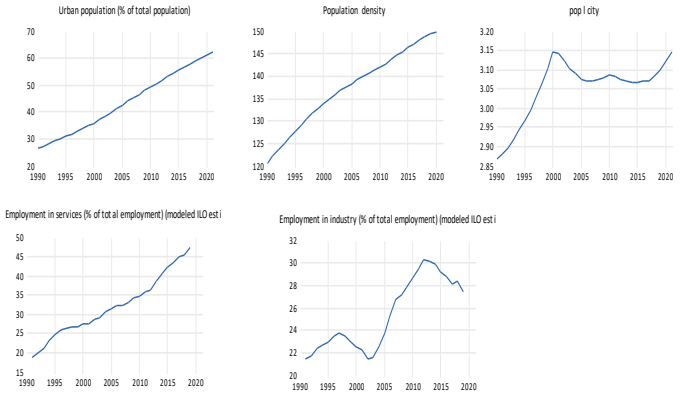


Figure 2: share of urban population, population density, population living in large cities, and employment in industry and services sectors Author's calculation based on WDI

Externalities of unplanned urbanization are detrimental. Rapid urbanization has an impact on the economy and the environment. The low growth trap, unemployment, pollution, and the energy problem are a few of its externalities. Most of the

population of the area lacks adequate access to adequate sanitation, electricity, water, and energy due to this unplanned urbanization (Drakakis-Smith, 2000). Urbanization without a strategy may compromise current energy security. As a result, the relationship between fast urbanization and energy security is highlighted in the following portion of this chapter, where energy security is defined as the inconsistencies in power supply and demand.

Energy Security in Pakistan

The reliable and adequate energy supply at fair rates is referred to as energy security (Bielecki, 2002). Reliability and appropriateness, where the energy supply entails a steady flow of fuel to fulfill the energy demand. This is a significant issue regarding energy security. Following the oil price shock of the 1970s, these worries surfaced. Some energy economists think there is no need to worry about energy security because the market mechanism has overcome problems with energy security problems. However, other analyses indicate that the period of high oil prices has returned, and the equilibrium between energy supply and demand has been upset. As a result, energy security is receiving more attention (Cherp & Jewell, 2014). Many energy economists and governments believe that the problem of energy security has not been solved without demand management (Banks, 2000). In the last two decades energy demand in urban areas has been around 4 times higher than in rural areas.

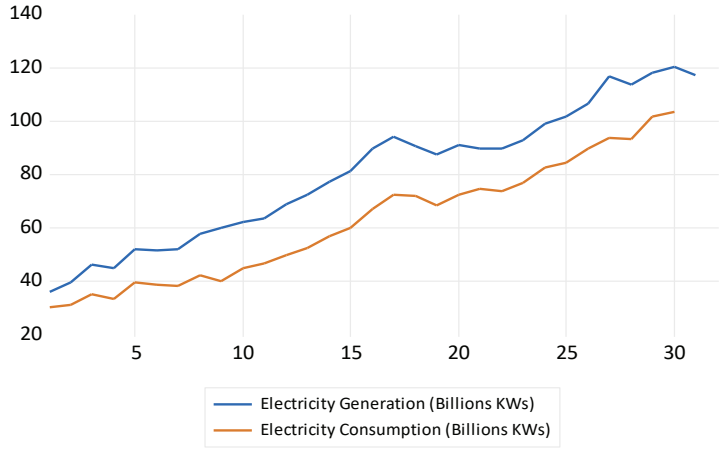


Figure 3: Electricity Production/Generation and Consumption

Energy infrastructure in Pakistan is in a transitional face; it is not well managed yet. Pakistan is facing an energy crisis due to weak infrastructure and poor management. Growth-led energy demand has been rising since the last two decades, but no progress has been made to overcome growth-led energy crisis. Another area that is still needed to improve is a reduction in transmission and distribution losses. These losses of result from aging power infrastructure, power theft, and seasonal reductions in hydropower availability have exacerbated the situation. Therefore, the demand exceeds per person. The amount the energy consumed

is equivalent to 0.53 tons of oil. Since 2014, the annual growth in total energy usage has been 4%. However, the availability of energy has decreased during the past few decades. Transmission and distribution capacity is around 22,000 MW, with an installed power generating capacity of 41,557 MW and a total demand of 31,000 MW. There is a 9,000 MW shortage as a result. Even though the nation's peak demand is significantly lower than the installed capacity of 41,557 MW, the additional 9,000 MW needed cannot be transported. One of the critical causes of unsustainable economic expansion is a lack of electricity.

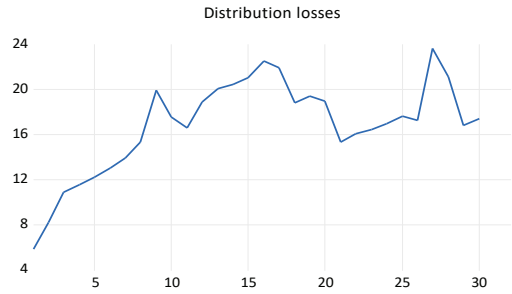


Figure 4: Distribution Losses during last three decades

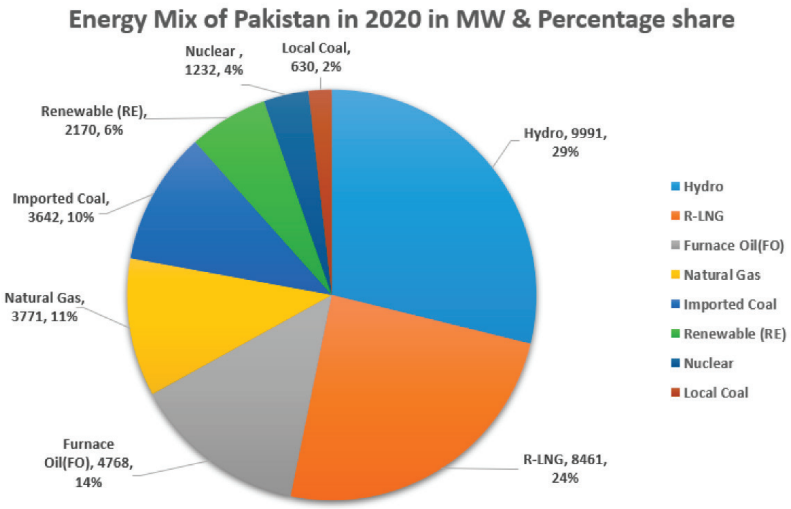


Figure 5: Share of Energy Mix in Pakistan

Pie chart showing Pakistan's energy mix. Share of hydro is highest and share of local coal is lowest due to its substandard conversion techniques. Share of renewable energy and local coal are needed to increase.

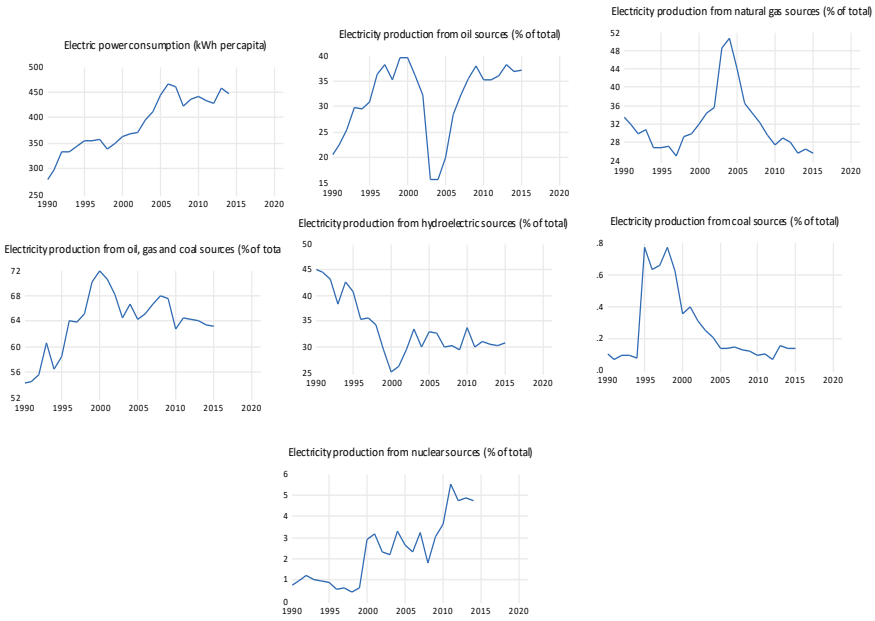


Figure 6: Electricity Production from different Sources in Pakistan from 1990-2020

The share of hydroelectricity in electricity production decreased from 2020 to 2021. Pakistan has abundant energy resources in the field of hydropower; however, only 29% of total electricity production comes from hydropower. Now we have 6555 MW with a potential of 41000-45000 MW.

Table 1: Capacity and Potential of different Hydropower in Pakistan

Hydropower Station		**Potential Hydropower Stations**	
Tarbella Dam:	3,478 MW	Diamer-Bhasha Dam:	4500 MW
Ghazi Brotha:	1450 MW	Munda Dam:	740 MW
Mangla:	1,000 MW	Kalabagh Dam:	2400-3600 MW
Warsak:	240 MW	Bunji Dam:	5400 MW
Chashma:	184 MW	Dasu Dam:	13800 MW

Whereas share of thermal increased, and now thermal has most significant shares. The use of RLNG became standard to produce electricity, it also helped to sustain supply to different power. Petroleum is another primary source of electricity generation in Pakistan, which counts 3rd and most significant sources of electricity generation. Estimated crude oil reserves in Pakistan are 303.63 million barrels, and about 24 million barrels of crude oil are produced annually. If we do not drill new wells in 12-13 years, we will exhaust our current oil reserves.

Natural gas is also a significant source of electricity generation. The aver-

age natural gas production is 4,048.76 million cubic feet per day. Natural gas is used in almost all industries and electricity generation. Shares of local coal in electricity generation are 2 %. Pakistan has over 185 billion tons of coal reserves, including 175 billion tons. Energy intensity in China is seven times higher than in Japan and 3.7 times higher than US. These basic statistics suggest that China needs to start conserving resources better manner to overcome potential energy insecurity in the future. However, electricity production from renewable energy resources is expanding rapidly in China. These green growth energy sources for electricity production could be one of the main reasons for China's economic growth.

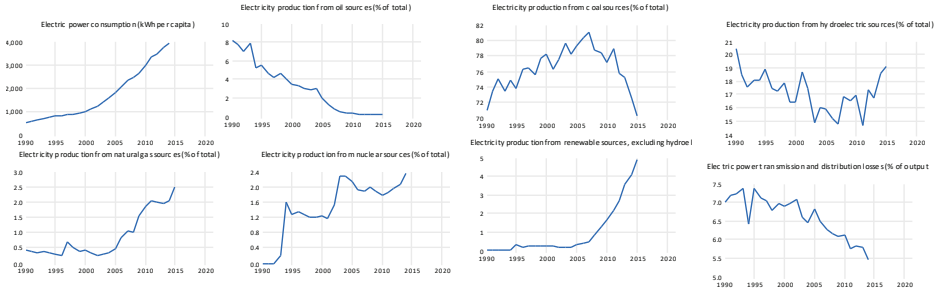


Figure 7: Electricity Production from different Sources in China from 1990-2020

Potential of Renewable Energy in Pakistan and Collaboration with China

The term "renewable energy" refers to energy sources that naturally replenish themselves. Examples include water, sunlight, wind, rain, tides, and geothermal heat. Electricity generators are used to harness the energy of moving water to produce hydropower. Hydropower, which produced 45% of the country's electricity in 1991, served as the nation's initial power source. However, this ratio has since decreased to around 29% because of preferences for short-term planning. According to Pakistan's Water and Power Development Authority (WAPDA), just 7,320 MW of its 60,000 MW hydropower potential has been reached. The hydropower is a type of energy that is tied to the force of moving water and can provide electricity (Wagner & Mathur, 2011). Around 20% of the total electricity produced worldwide is produced using hydropower (Asif, 2009; Peake, 2018). Pakistan's total water resources—including its rivers, glaciers, snow melt, etc.—are projected to cover 400,000 Km2 (Sheikh, 2009).

Under the umbrella of CEPEC energy projects, China and Pakistan are working together on 21 renewable energy projects (Alam et al., 2019; Baig et al., 2020). Twenty-one projects total, five of which are hydroelectric projects. The Karot Hydropower Project is in Punjab/AJK. This project is being carried out by China

Three Gorges (CTG) and Karot Power Company Ltd (KPCL). This project has an 884 MW capacity, and it is finished in 2021. This project is currently running. The Suki Kinari Hydropower Project is in KP and is being carried out by China Gezhouba Group Company Ltd. and Suki Kinari Hydro Ltd. The project is 70% complete (720 MW) and will be finished in a few years. CTG/CWEI (China Three Gorges) / (CWE Investment Crop) are going to undertake the Kohala Hydropower Project in AJK (Baig & Zehra, 2020; Ghanem et al., 2021). This project has a 1124 MW capacity. It has begun the process of acquiring land. In June 2020, TPPA and Gop-IA were inked. The Financial Closer is being worked on. Another hydropower project is Azad Pattan Hydropower Project, AK/Punjab, which has a capacity of 700.7 MW and is operated by Laraib Energy/China Gezhouba Group Company. It has begun the process of acquiring land. In June 2020, TPPA and Gop-IA were inked. A financial closer is being worked on.

The coastline region of Pakistan stretches 1,050 km from the Iranian border in the west to the Indian border in the east (250 km in Sindh and 800 km in Balochistan) (Bhutto, Bazmi, & Zahedi, 2013). According to estimates, the wind speed along Pakistan's coastlines is between 5 and 7 m/s. As a result, wind power plants have been installed in coastal areas of Sindh and Balochistan, including Karachi, Ormara, Jivani, Pasni, Baburband, Kati Bandar, and Gharo (M. A. Ahmed, Ahmed, & Akhtar, 2006; D. Li, Wu, Liu, Zhang, & Arıcı, 2018; Sheikh, 2009). Wind power is the process of using the wind's force to propel wind turbine blades. By causing magnets to spin, these turbines produce power. Despite Pakistan's 10,000 MW to 50,000 MW of potential wind energy, the nation is still in the early phases of generating wind power. In Jhampir, 6 MW have already been installed by a Turkish company as part of a first phase, and 50 MW will follow soon.

There will be new wind energy facilities constructed in Jhampir, Gharo, Keti Bandar, and Bin Qasim Karachi. Through CEPEC, China and Pakistan are collaborating on six wind power projects. The UEP wind farm is situated at Jhimpur, Thatta. UEP Wind Power Pvt Limited (UEPL), which has a 100 MW capacity, is executing this project. It is now in use and was completed in 2017. The Hydro China Dawood Wind Farm is a piece of land close to Gharo, Thatta, that is run by Hydro China Dawood Power Pvt. Limited (HDPPL). It was completed in 2017 and is currently operational; it has a 50 MW capacity. The Hydro China Dawood Wind Farm, which is also close to Gharo, Thatta, is run by Hydrochina Dawood Power Pvt. Limited (HDPPL). It was completed in 2017 and is currently operational; it has a 50 MW capacity. Operating the 50 MW capacity Sachal Wind Farm, Jhimpir, Thatta, which was finished in 2017, is Sachal Energy Development Pvt. Limited (SEDPL). The organizations in charge of completing the Three Gorges Second and Third Wind Power Projects are Three Gorges and Three Gorges Second Wind Farm Pakistan Ltd. (TGSWF). Finished in 2018, the Third Wind Farm Pakistan Pvt. Ltd. (TGTWF) is now functioning. This project has a 100 MW capacity. Cacho Wind Energy Pvt. Ltd. is considering and implementing the Cacho Wind Power Project. It has a 50 MW capacity and is currently

in the LOI stage. The wind power project is being carried out by Western Energy (Pvt.) Ltd and is now at the LOI stage.

Solar energy entails using solar thermal panels to heat water or the atmosphere and turning sunlight through solar cells into electricity. More than 100,000 MW of solar energy capacity exists in Pakistan. Baluchistan, Kashmir, Punjab, and Sindh are currently constructing solar power facilities. Independent vendors are importing solar panels and water heaters to suit market demand. The Alternative Energy Development Board (AEDB) is attempting to build 20,000 solar water heaters in Gilgit Baltistan. The use of solar energy panels rather than petroleum to power mobile firms' transmission towers has been mandated by the government. Additionally, Pakistan and China are working together on various solar energy projects. Bahawalpur is where Quaid-e-Azam Solar Park is located. The project's overall capacity is 1000 MW. While a 600 MW project is being implemented, a 400 MW project was finished in August 2016 and is now operating. The Quaid-e-Azam Solar Power Park (QASP), named after Pakistan's founding father, is a complex of 400,000 solar panels over 200 hectares of level desert in Punjab. This is the first energy project under the US$46 billion China-Pakistan Economic Corridor, a crucial component of China's "new silk roads," which connects Kashgar in China's western region of Xinjiang with the port at Gwadar in southern Pakistan.

Biomass production refers to the use of trash or other renewable resources like corn, sugarcane, or other vegetation to generate power. Waste decomposes into methane, which is then trapped in pipelines and finally burned to provide electricity. Like fossil fuels, plants and wood can be directly burned to produce energy or processed to produce alcohols. One of the biggest biomass/biodiesel-based renewable energy projects in the world is in Brazil, followed by the United States. By using municipal waste, Pakistan's Alternative Energy Development Board (AEDB) plans to generate 10 MW of electricity in Karachi, with follow-up projects in 20 other cities around the country. In China, biomass is a substantial source of energy. Modern biomass technologies are being used in China to raise the standard of living in rural areas and encourage industrialization. Additionally, these technologies can deliver affordable, clean fuels for power and heating. According to Vice Chancellor of the University of Agriculture Faisalabad (UAF), Professor Dr. Iqrar Ahmad Khan, Pakistan produces enormous amounts of biomass and crop leftovers each year that might be turned into electricity to help the nation's energy shortage. He said during the inauguration of an energy plant built at the Punjab Bio Energy Institute, Postgraduate Research Station UAF, in partnership with China, that the UAF had installed a 100-KW biomass gasification power plant intended to promote alternative energy to address a power shortage of up to 5,000 MW.

Another clean, sustainable energy source derived from the earth's internal heat source is geothermal energy. Geothermal energy comes from a variety of plac-

es, including hot springs, volcanoes, fumaroles, and geysers. Geothermal energy offers enormous potential for producing electricity in Pakistan. In the areas of Balochistan, Sindh, Karachi, Azad Kashmir, and KPK, there are several hot springs with temperatures ranging from 30 to 170 °C that can be used to produce geothermal energy. Despite Pakistan's abundance of geothermal resources, little has been done or is planned to use them to generate useable electricity (Awan & Rashid, 2012; S. N. Malik & Sukhera, 2012).

The Moon's gravity can be used to generate power by submerging a water turbine in a tide stream. Energy can be stored until it is required by the electrical generator or gas compressor that the turbine drives. Coastal tides provide clean, limitless, renewable, and sustainable energy. Tidal energy utilization is currently planned in Pakistan, although nothing has been put into action yet. The current capacity of Pakistan's nuclear power programme is 425 MW, while there are plans to significantly increase it. Pakistan's attempts to produce civil nuclear energy are hampered by the Nuclear Non-Proliferation Treaty, which forbids the country from dealing in nuclear items. The management of solid waste, prevention of chain reactions, and uranium enrichment from U235 to U238 remain difficult tasks in the advancement of nuclear energy. Pakistan is working to boost the share of nuclear energy and other renewable energy sources in its overall energy mix to combat the worsening energy crisis and its ensuing economic problems. Pakistan wants to produce 8,800 MWe of nuclear energy by 2030, which would make nuclear energy responsible for 20% of Pakistan's total energy. China and Pakistan agreed in November 2017 to construct a fifth nuclear power station at Chashma (C-5) to achieve this. Even though C-5 hasn't started being built yet, once it does, the new reactor will be able to supply the national grid with an extra 1,000 megawatts of electricity. Even though nuclear energy only accounts for a small portion of Pakistan's overall energy mix at the moment, increasing Pakistan's nuclear energy generation capacity and combining it with other renewable energy sources could not only help Pakistan resolve its energy crisis but also have a positive impact on the climate**.**

Conclusion and Policy Recommendations

Urbanization is uneven across countries because of disparities in socioeconomic development (Elmqvist et al., 2013). Urban growth in the developed world is due to well-planned urban infrastructures, including water and electricity supply (Giles-Corti et al., 2005). On the other hand, in the developing world, national economic growth and development are not enough to sustain the unplanned urban population. Pakistan's urban population is increasing. This high growth rate of urbanization should be a matter of concern. Growth-led energy demand puts pressure on energy infrastructure and creating energy security in Pakistan.

Electricity is essential for the operation of machines in factories and industrial plants. As a result of urbanization and population growth, there is a huge in-

crease in demand for electricity compared to the increase in electricity production. Therefore, the electricity supply is much less than the actual demand due to losses in electricity distribution and the increase in the cost of generating electricity from non-renewable sources, resulting in a crisis in Pakistan. An energy crisis can be defined as any significant bottleneck in the economy's supply of energy resources. Therefore, Pakistan should learn from China and invest in renewable energy sources, the contribution of renewable energy sources other than hydro is vertically increasing in China, whereas the contribution of renewable sources other than hydro is negligible in Pakistan. For example, the Potential of electricity generation from wind power is high. Pakistan has the potential to generate electricity from wind power between 10000 MW to 50000 MW but currently has negligible shares in the electricity mix. Another source of renewable energy is solar power. Pakistan has the potential generating generate electricity through solar energy is around 100,000 MW. Pakistan needs foreign investment, and China could be a potential investor. The alternative Energy Development Board of Pakistan works on solar water heaters in Gilgit Baltistan. Nuclear energy is used in the generation of electricity in many countries. Pakistan generates 425 MW from nuclear energy, which is not enough and needed to increase capacity with the help of China.

Suggested Citation

Mahmood, T. (2023). Urbanization And Energy Security in Pakistan: Lessons from Chinese Experiences. In *Silk Route Revisited: Essays and Perspectives on the China-Pakistan Economic Corridor and Beyond* (pp.98-109). CSC-KIU.

References

Ahmed, M. A., Ahmed, F., & Akhtar, M. W. (2006). Assessment of wind power potential for coastal areas of Pakistan. *Turkish Journal of Physics, 30*(2), 127-135.

Alam, K. M., Li, X., & Baig, S. (2019). Impact of transport cost and travel time on trade under China-Pakistan economic corridor (CPEC). *Journal of Advanced Transportation, 2019*.

Asif, M. (2009). Sustainable energy options for Pakistan. *Renewable and Sustainable Energy Reviews, 13*(4), 903-909.

Awan, K. Y., & Rashid, A. (2012). Overview of Pakistan's electricity crisis, generation-mix and renewable energy scenarios. *International Journal of Engineering & Technology, 1*(4), 321-334.

Bai, X., Chen, J., & Shi, P. (2012). Landscape urbanization and economic growth in China: positive feedbacks and sustainability dilemmas. *Environmental science & technology, 46*(1), 132-139.

Baig, S., Qasim, M., Xuemei, L., & Alam, K. M. (2020). Is the China-Pakistan economic corridor an opportunity or a threat for small and micro-entrepreneurs? Empirical evidence from Northern Pakistan. *Sustainability, 12*(5), 1727.

Baig, S., & Zehra, S. (2020). China-Pakistan economic corridor, governance, and tourism nexus: evidence from Gilgit-Baltistan, Pakistan. *Current Issues in Tourism, 23*(23), 2884-2889.

Banks, F. E. (2000). *Energy Economics: A Modern Introduction: A Modern Introduction*: Springer Science & Business Media.

Bhutto, A. W., Bazmi, A. A., & Zahedi, G. (2013). Greener energy: Issues and challenges for Pakistan—wind power prospective. *Renewable and Sustainable Energy Reviews, 20*, 519-538.

Bielecki, J. (2002). Energy security: is the wolf at the door? *The quarterly review of economics and finance, 42*(2), 235-250.

Chen, J. (2007). Rapid urbanization in China: A real challenge to soil protection and food security. *Catena, 69*(1), 1-15.

Cherp, A., & Jewell, J. (2014). The concept of energy security: Beyond the four As. *Energy Policy, 75*, 415-421.

Drakakis-Smith, D. W. (2000). *Third world cities*: Psychology Press.

Elmqvist, T., Fragkias, M., Goodness, J., Güneralp, B., Marcotullio, P. J., McDonald, R. I., . . . Seto, K. C. (2013). *Urbanization, biodiversity and ecosystem services: challenges and opportunities: a global assessment*: Springer Nature.

Ghanem, O., Xuemei, L., Alam, K. M., & Baig, S. (2021). The effectiveness of freight costs on trade potentials between China and European Union, Middle East, North African countries under China-Pakistan Corridor. *International Journal of Shipping and Transport Logistics, 13*(3-4), 327-359.

Giles-Corti, B., Broomhall, M. H., Knuiman, M., Collins, C., Douglas, K., Ng, K., . . . Donovan, R. J. (2005). Increasing walking: how important is distance to, attractiveness, and size of public open space? *American journal of preventive medicine, 28*(2), 169-176.

Li, D., Wu, Y., Liu, C., Zhang, G., & Arıcı, M. (2018). Energy investigation of glazed windows containing Nano-PCM in different seasons. *Energy conversion and management, 172*, 119-128.

Malik, S. N., & Sukhera, O. R. (2012). Management of natural gas resources and search for alternative renewable energy resources: A case study of Pakistan. *Renewable and Sustainable Energy Reviews, 16*(2), 1282-1290.

Peake, S. (2018). *Renewable energy-power for a sustainable future*: OXFORD university press.

Sheikh, M. A. (2009). Renewable energy resource potential in Pakistan. *Renewable and Sustainable Energy Reviews, 13*(9), 2696-2702.

Wagner, H.-J., & Mathur, J. (2011). *Introduction to hydro energy systems: basics, technology and operation*: Springer Science & Business Media.

8

Sino-Pakistan Cultural Relations: Challenges and Policy Directions

Akber Ali
https://orcid.org/0009-0006-1936-2433
Department of Media and Communication Studies, Karakoram International University

Introduction

As business relationships and people-to-people contacts between China and Pakistan steadily increased with the launch of the China-Pakistan Economic Corridor, one arena that has not been given substantial attention in the academic discourse is cross-cultural issues between the two disparate cultures. Examining them is plausible and timely both from a theoretical and empirical standpoint. This paper thus aims at dwelling on drawing a comparison between the two cultures highlighting their differences and similarities; and argues that the success and smooth functioning of the relationships between the two nations depend not only on the political clichés and bilateral cooperation in economic, industrial, and diplomatic spheres but also on understanding the cultural differences and similarities. The effort will help the players and partners reduce the tangible and intangible barriers that may hinder cross-cultural communication between the two nations and foster similarities to craft mutual understanding. From the vantage point of cross-cultural communication, the current exploratory study is the first to investigate the Pak-China cordial ties for ages. Specifically, it attempts to gauge the cultural differences between the two nations on the one hand, that could pose challenges in their understanding of each other and similarities on the other hand, that could forge and foster better understanding. It is argued that recognizing cultural differences is the first step in reducing the difficulties of dealing with these two disparate cultures. The study further contends that despite some noticeable differences and unique aspects in the cultures of China and Pakistan, there are also commonalities that can well be utilized to cultivate mutual acceptance and bring the two nations closer to each other. The study also suggests some policy directions and proposals to reduce the barriers and enhance the prospects of mutual understanding between the two nations considering their growing engagement in various human spheres.

The relations between China and Pakistan have remained constantly the defining features of their foreign policies since their very outset in 1951. Over the years, despite many changes and upheavals in the chaotic global political order and adherence to their unique cultural, political, and economic systems, the ties between these two countries have remained durable and kept growing steadily with every passing day, particularly with the launch and promulgation of the China-Pakistan Economic Corridor (R. Hameed, 2017). Until the turn of the century, this

relationship was limited in most cases to government to government, defenses, diplomatic and military cooperation. However, since the start of the current century, the ties between the two countries have expanded drastically in economic and socio-cultural spheres. Moreover, with the launch of the China-Pakistan Economic Corridor, which is a flagship of China's Belt and Road Initiative (Z. S. Ahmed, 2019; M. Hameed, 2018) and the changing geo-political situation in the region, the bilateral relations between China and Pakistan have further garnered attention and significance in meeting the national interest of both counties, a plethora of academic scholarship on Sino-Pakistan relations in the geopolitical, economic, and military realms (Azeemi, 2007; Javaid & Jahangir, 2015; Small, 2015), intriguingly hitherto, no academic and strategic heed has ever been given to examining the ties between the two nations from a geo-cultural perspective. This is a critical oversight in the extant literature, and examining it is both timely and theoretically and empirically sound. Moreover, within the ambit of the China-Pakistan Economic Corridor (CPEC), the bilateral relationship has further added impetus to state-to-state level relations and equality at the people-to-people and cultural levels. Yet these growing engagements between both nations are not without challenges from a cross-cultural communication perspective. Exploring these engagements seems timely, which could add valuably and substantially to the existing discourses on ties between China and Pakistan.

In the prior literature on China and Pakistan, no considerable academic attention has been paid to examining the relations from a cross-cultural perspective, particularly the cross-cultural differences that could hinder the meaningful communication process between the two countries. Few prior studies have attempted to examine the impacts of the cultural differences between China and Pakistan on the success of the company projects (Naeem, Butt, & Khanzada, 2018), the need to promote the cultural exchanges between the two countries (Jiqiong & Keyu, 2017), some common notions embed in Confucianism and Islamic mysticism on filial piety and development (Cetinkaya, 2011; Tanggok, 2017), humanism in Islamic and Confucian education (Tan & Ibrahim, 2017) and the cultural adaptation of Pakistani students in China (Su, 2017), these studies, however, have not discussed what the cultural differences are in the first hand and how to overcome them.

As has been argued that understanding cultural differences between people of disparate cultures and managing them is of pivotal significance not only for the success of business ventures but equally for fostering better understanding between peoples of different cultures and that paying no attention to cultural differences could jeopardize mutually beneficial enterprises between people (Brunner, Koh, & Lou, 1993). Thus, the success of relations between nations depends on the extent to which the people deeply connect; for that, understating the differences is the first step toward more congenial relations (Slate, 1993). Finally, the notion of culture itself is very complex and nuanced, which could be conceptualized as "the manifold ways of perceiving and organizing the world that is held in common

by a group of people and passed on interpersonally and interchangeably" (Yuan, 2010). Thus, culture is a complex whole that is constituent and constitutive of almost every aspect of human lives. It is, as a matter of fact, the part of the behavior that is once learned collectively; it is therefore taught and not instinctive or innate. Culture influences how people within a particular context communicate and how they perceive each other.

This study thus departs from the traditional studies of economic, political, and military relations between the two countries. It provides unique yet unexamined aspects of these relations from the vantage point of cross-cultural communication, which we have conceptualized here as the way people from different cultures communicate when they deal with each other either from a distance or face to face (Hurn, Tomalin, Hurn, & Tomalin, 2013). Specifically, the study delves into the challenges of cultural differences and prospects of cultural similarities between the two countries. It proceeds as follows: In the first part of the study, we will briefly discuss the cultural differences and challenges between the two cultures, namely China and Pakistan. We will then attempt to elaborate on the cultural similarities and prospects that could forge mutual understanding between the two countries. Finally, some suggestions and policy guidelines will be given to overcome the existing cross-cultural issues between the two cultures and civilizations.

Cultural Variations Between China and Pakistan

The significant cultural differences between China and Pakistan include language, different worldviews, religion, gender roles, political and economic systems, and the broader notions associated with life. A list encompassing all the possible visible and invisible differences both at the physical and cognitive levels is beyond the scope of the current study; nevertheless, the aforementioned factors are significant differences that lead to cultural differences and hinder the cross-cultural communication between the two cultures. Cultural differences could be a sign of diversity and pluralism. Still, when it comes to cross-cultural commutation, they could act as hindering devices rather than fostering dialogues and mutual understandings. These differences can be further pronounced as impediments in business dealings. They even could create stereotypical generalizations about different cultures resulting in misunderstandings between people of disparate cultures. From a cross-cultural communications perspective, cultural differences must be recognized before they can be understood. Only we begin to understand the differences can we change our ways and adjust our attitudes and behaviors toward the other cultural group to accommodate the differences and can finally communicate to our counterparts of other groups in a mutually understandable way. This is equally true in the case of China and Pakistan vis-à-vis their cultural differences/ similarities. Below will briefly elaborate on the significant differences, which are purely based on our own understanding as scholars of cultural communication, and our immersion with both cultures for quite a few years and thus must be considered more as heuristic rather than empirical (Alam et al., 2019).

Nevertheless, one can hardly deny these obvious differences prevalent in both the cultures of China and Pakistan.

Language

Language is the basic medium of communication between human beings but can also be a hindering medium if misunderstood or not understood by people of different languages speakers. Language is an essential part of any cultural community that fosters communication and shapes our mental perceptions and meanings of the world. Language is the most apparent barrier between China and Pakistan. Due to their different language systems, the two communities cannot communicate and thus cannot understand each other fully. While there is a growing realization in Pakistan to learn the Chinese language, most of the people at the gross root level cannot understand the Chinese language. Further, learning the national language of Pakistan (*Urdu)* be not a preferable acquisition for Chinese who instead prefer to learn English or Japanese, or other major global languages, due to the global significance of those languages. Given the significance of language in bringing different cultures closer to each other, even learning to say basic greetings of 'please' and 'thank you' is considered to create goodwill among people of different cultures (Slate, 1993), yet given the difficulty of both languages and their relative importance, it seems that language barrier will remain a significant obstacle between China and Pakistan in the foreseeable future despite efforts to overcome it.

Religion

Religion is yet another challenging barrier when it comes to cross-cultural communication between China and Pakistan, wherein the latter is a predominantly religious society. Still, the former is less religion-centric in the sense that there is no official religion in Chinese society. Many of the misunderstandings prevalent between the two societies could be accounted due to the high religiosity prevalent among Pakistanis. Religion is such a powerful force in Pakistani society that it shapes the entire social and political structure of Pakistan. At the same time, it equally shapes the mental models of many of the people in Pakistan, which in turn forms the opinions about the people of other cultures. In the case of China, religion is not an essential factor in building world views and their relationships with people from other cultures and their everyday lives. In contrast, religion is part and parcel of almost every sphere of life in Pakistani society. In Chinese society, Confucianism pervades the entire society. Although Confucianism is not a religion in the strict sense, but arguably plays a pivotal role in Chinese society, life, everyday dealings, and cultural and value systems of China (Tang, 1995).

Furthermore, in post-9/11, when Islam and its followers came under attack in the global media and cultural discourses, the views and attitudes toward Muslims and Islam have been seemingly unfriendly, ambivalent, and even negative in most societies around the globe. These global representations of Islam and Muslims

have further widened the void between Muslims and non-Muslim communities. Moreover, given the general tendency of interest lacking towards religion in Chinese society and the lack of understanding of diversity and pluralism within Islam and Muslim community, the gap between the two societies seemingly will remain there unless and until serious efforts are made to remove the misperceptions about religion. Compared to other religions, arguably Islam as a religion has fewer attraction, and charm for the Chinese community, which could further hinder the cross-cultural communication between the two societies. For most Pakistanis, religion is arguably the single most important entity of their lives, which exerts significant influence on all aspects of their lives. This might result in rigidity and lack of accommodating other cultures and their norms and practices. Even though the Chinese do not adhere to any religion in the wider sense, the Chinese mind is highly influenced by Confucianism to a great extent. Confucianism does not belong to any religion, neither it is considered a 'religion' in Chinese society (Tang, 1995), yet as an appealing thought, it has highly shaped the Chinese mind both consciously and unconsciously. Confucianism can better be understood as a moral philosophy than as a religion that centers on humanism and the transformation of individual and collective life. It does not put emphasis on the worship of a God, or the lord instead emphasizes the individual piety that would lead to collective well-being. In this sense Islamic mysticism and Confucianism seem to share more common moral virtues, which will be further discussed in the forthcoming part of the study.

It is plausible to think that if we want to transform the closed societies in Muslim countries, including Pakistan, into open and pluralistic ones, it is imperative to define the religion of Islam philosophically instead of, dogmatically. For dialogues and constructive counters with other faiths and cultures, the religion of Islam needs to be liberated from the chains of unreason to explore and understand it philosophically. The unreasoned Muslim mind has stifled the expansion of religious discourse to explore new horizons. Thus, it is the need of the hour to explore and approach the religion of Islam from a philosophical and civilizational point of view instead of looking at it as dogmatism. Understanding Islam from a civilizational and philosophical approach has become more imperative in contemporary times than ever as the global discourse on Islam is becoming increasingly reductive, narrowed, and even distorted.

Different Worldviews

Besides religion, at the larger societal level, two contrasting views are embedded in the Chinese and Pakistani minds. The two contrasting conceptions are about this world and the hereafter. The predominant belief in Islam, and equally in the Muslims of Pakistan, is the temporal status of the world which is not immortal but rather a temporary place for the preparation of the next world. Accordingly, for many Pakistanis, this material world and life are not necessary as compared to the permanent life hereafter or after the death of an individual. In this view, according to the creeds and injunctions of the Quran- the Holy book of Islam, everything in

life is predestined and arranged by God what is generally known as fatalism. According to fatalism, everything good or evil which happens to someone is considered an 'act' of God over which an individual and even a society has no control. In contrast, Chinese society can be argued to believe more in cause and effect, introspection, and self-criticism, and necessary after a failure, and the person who is supposed to be in the dispensation of responsibilities is made responsible and investigated accordingly for any failure or calamity in the society (Zhu, 2017). Seeking material wealth and happiness seems to be a dominant norm of Chinese society though it equally believes in good and bad deeds and their rewards.

Most Muslim community members, including the Pakistanis, have a deep sense of cultural and religious superiority. This sense of religious and cultural superiority over others tends to create a sense of intolerance and religious bigotry toward the members of other religious and cultural groups. This sense of 'superiority' tends to hinder the adaptation and tolerance toward other cultures, values, norms, and worldviews, thus creating challenges for communication and understanding of other cultures and societies. Admittedly, this is a distorted view of the followers, which has nothing to do with the true spirit of Islam, which instructs its followers to exercise tolerance, forbearance, peaceful coexistence, and acceptance of human pluralism. Further, given the lack of dialogues and interactions between Chinese and Muslim communities, the distorted views about each other could be manifold. Contrary to the West, wherein the best and most refined scholarship on Islam is produced and where Islam in its various dimensions, from history to spirituality, is taught in the top Western universities with almost every Western university with a Chair of Islam, unfortunately to the best of our knowledge there is not a single university in China that might hold an Islamic Chair and wherein Islam is being introduced to the academic circles.

Gender Roles

Beyond the religious and language barriers, there are also significant differences in the roles of gender- the socially defined positions and roles of men and women in Chinese and Pakistani societies that can impede working relationships between the two cultures. From the cultural perspective, the roles socially assigned to males and females are also dimensions of the cultural differences. In the contemporary society of China, gender equality is much more prevalent compared than in Pakistan. Chinese men and women share the same public spaces without being discriminated against based on gender, thus contributing to China's national development. In contrast, in Pakistan, gender discrimination in the name of religion, culture, and many other excuses prevents Pakistan women from sharing the public spaces as do their male counterparts. Male dominance and patriarchal practices are not just norms but well-structured in Pakistan's overall social and political fabric. In most of cases, woman is culturally considered 'inferior' to men and are expected to be obedient to their husbands and other members of the family. Furthermore, the presence of females in public spaces is generally discouraged if not fully avoided. Mixing of the opposite sex in most cases is equally discour-

aged in most parts of Pakistani society. Although this primordial notion about women is more cultural and contextual rather than religious, one is changing with the modernization of society yet, they still pose as cultural differences and hinder communication with people from other cultures. Contrarily, in China, especially with the reforms and opening policies, discrimination based on gender is almost nonexistent paving the way for a Chinese woman to play an important role in all walks of life and receive equal treatment. This culturally driven discrimination of women in Muslim societies like Pakistan prevents people from other cultures from interacting with Pakistani women resulting in the further strengthening of the negative images of Pakistani women and the society at large. With the opening and reforms policies, Chinese society is much more open and accommodating to other cultures, customs, norms, and values. Further, the process of globalization, which has brought Chinese people closer to other cultures, and the internationalization of the Chinese culture have made it possible for Chinese people to get exposed to other cultures and people, something which is still either missing or not encouraged in the Pakistani cultural milieu.

Political and Economic Systems

The political and economic systems practiced in both countries are yet another visible difference that impedes cross-cultural communication between the two countries and their people. Political and economic systems are not just political and economic practices but also important constructs that shape the mental models, social cognition, and world views of individuals and societies. Chinese political and economic systemic are more centralized and with controlled economic liberty, which is often dubbed as 'socialism' with Chinese characteristics. China's political system is also more centralized, with a rigorous hierarchy at various levels. In contrast, the Pakistani economic and political system is a mix of both Islamic and Western ideals. It is neither completely westernized nor Islamic but rather a hodgepodge of both (Baig et al., 2020). The political system of Pakistan is more decentralized with powers devolved to the gross root levels. Economically, it follows the Western models of economic practices often, yet the Islamic notions of economics influence economic practices. Often, these striking contrasts in the economic and political systems of both countries create unnecessary misunderstandings and ambivalence toward each other among the two people. These systems arguably also shape each society's mental views, behavior, and attitude patterns, causing more hindrance to be understanding each other. Often, these differences in the political and economic systems in the two countries create misperceptions, misunderstandings, and even miscommunications between the people of the two cultures. Both countries have unique political and economic systems, which is an outcome of the needs of contexts and thus cannot be judged as good or bad or democratic or not. Each system has its limitations and advantages.

Miscellaneous

In addition, the two cultures have other obvious cultural differences. For instance, food, an essential part of any culture, varies strikingly between the two cultures. For most Pakistanis, Chinese cuisine is not liked either out of their unfamiliarity with Chinese food or because of religious concerns that they avoid eating Chinese cuisine. Pork and alcohol, essential Chinese food culture ingredients, are unacceptable for most Muslims and Pakistani people. Observance of *Halal* food culture is an essential part of Pakistani culture. In addition to food, punctuality of time and promises and commitments may not be as strictly followed in Pakistani culture as one might expect in Chinese culture. Marriage ceremonies, traditions, music, festivals, etc., are yet other visible differences between the two countries (Ghanem et al., 2021).

Cultural Similarities Between China and Pakistan

Despite the disparities in the cultures of China and Pakistan, fortunately, there are also shared values, morals, and virtues between the two cultures and civilizations that could be the impetus to bring the two cultures closer to each other and to forge mutual understanding between these cultures. In this part of the paper, we will briefly illustrate the moral virtues and philosophies common to both cultures and exploring them could be vital for cross-cultural communication between the two countries. Admittedly, a more detailed analysis of the common cultural values and philosophies is beyond the scope of the study (Baig & Zehra, 2020). Suffice it to say that despite the seemingly widespread differences, there are some critical, deeply held commonalities between the two cultures, namely the values and virtues of Confucianism and Islamic mysticism, collectivism over individualism, kinship, and familial system and filial piety in Islam and Confucianism which are being briefly elucidated below.

Confucianism, Islamic Mysticism, and Spiritualism

One of the tenets common to Confucian and Muslim mysticism – the latter is also known in the Western discourse as Islamic esotericism or Islamic Sufism (Sorgenfrei, 2018) is the concept of spirituality which remains a less understood and unexplored phenomenon between Islam and Chinese Confucianism. Spirituality has been a subject of interest and concern for human beings for most regions and ages. Islamic mysticism and Confucianism are among some of recorded human history's great moral and spiritual traditions. It is the affinity of the human soul with nature, morals, and fellow human beings. Muslim mysticism has been playing a pivotal role in promoting Islam's spiritual dimensions, namely establishing a vibrant, productive, and peaceful human society based on human dignity, diversity, mutual respect, peaceful coexistence, and fraternity. Similarly, Confucianism has remained influential and plays the same role in Chinese society. However, it does not claim to be a religious system or spirituality. Yet, the outcomes of the Confucian practices and philosophical approaches ultimately lead to spiritual

satisfaction, peace of mind, and peaceful coexistence. Social harmony, peace, love, peaceful coexistence, and human dignity are shared values that spiritual traditions aim to inculcate among their followers. For instance, one of the major emphases in the teachings of Muslim mysticism is the purity of the human soul of prejudice, hatred, and narrow-mindedness and to enlighten it with the light of knowledge. For most Muslims, respecting human dignity irrespective of origin, ethnicity, color, and religion is part and parcel of their faith. The great Muslim mystics and sages have always taught spirituality and the 'oneness of all human beings from one soul. *Sulhe Kul* (peace with all human beings) is one of the basic teachings and tenants of Muslim mysticism and spiritual dimensions of Islam. Most Muslims believe and follow this tenet as fundamental to their belief system. However, the few extremist actions of some Muslims often clout this spiritual dimension of the religion of Islam.

Likewise, within Confucianism, the presumption is that human beings are fundamentally sound and will internalize the acceptable norms and only take proper actions, which will result in the creation of a harmonious society and improve an individual's inner character and the overall quality of society. Confucianism's abstract notion of Tian (heaven) represents the universe or all natural things. Though Confucian never claimed that God had sent him or that he had obtained enlightenment from God, the emphasis on the relationship among people for a harmonious life and peaceful coexistence resembles Islamic teachings, particularly those embedded in Islamic mysticism. Furthermore, Confucianism, like Muslim mysticism, places great emphasis on personal virtues that should guide all individual actions, namely- benevolence, righteousness, propriety, wisdom, and fidelity, wherein benevolence conveys the concept that everyone should try to help others and embody compassion in the inner world as well as avoid ill feelings toward others. It states, 'You should not impose on others what you would not desire' (Q. Zhao, 2018). Likewise, righteousness emphasizes self-control and integrity. Propriety focuses on the social hierarchy and respect one must give to others, including the elders and rulers. The virtue of wisdom is inevitable for proper and moral actions, while fidelity deals with honesty and integrity to maintain a clear relationship between one's words, thoughts, and deeds (Zhao, 2018). Elaborating further on the notion of Tianxia, (Q. Zhao, 2018) explains that tianxia has three levels of meanings: the earth- the whole world under the heaven; the hearts of all peoples- the general will of the people, and world institution- a utopia of the world as one family. All these notions convey one meaning: a vision of the world characterized by harmony and cooperation without coercion. This very notion resembles to the mystic traditions of Islam that emphasize on the 'oneness' of human beings and that all human beings embody a single divinely inculcated soul. In this sense, Confucianism echoes Islam's teaching that the perfection of human beings can only be achieved through their integration with society (Tan & Ibrahim, 2017).

Like many other dimensions, there are several similarities between Islamic edu-

cation and Confucian education, according to which the sole mission of human beings is to perform their duty on earth as God's stewards (in Islam) or Way-propagators in Confucianism. Both the traditions emphasize human perfectibility through education and spiritual discernment for Islam and realizing and broadening the Way for Confucianism. That both civilizations go beyond mere cognitive development through education and instead emphasize moral education and spiritual enlightenment through the ethical and practical rules of conduct of Islam and the moral self-cultivation of Confucianism; additionally, Confucian's point about heaven being the source of his virtue parallels Islam's belief in an objective morality given by God to human beings, which makes it possible for its adherents to achieve self-actualization- the ultimate purpose of human life (Tan & Ibrahim, 2017). These ordinary virtues prevalent in these two significant civilizations have remarkable power over the external virtues, which can lead the believers toward being harmonious members of society and be instrumental in building dialogue between the two civilizations of Confucianism and Islam.

Furthermore, both the traditions of Confucianism and Islam emphasize that human beings to be in harmony with nature and not exploit its resources out of greed. Confucianism always regards human beings as part of nature. It has been made obligatory upon human beings to respect and protect nature. The Confucian idea of ecology and sustainable life is epitomized in the notion of 'harmony between Heaven and human being". In other words, humans need to live in harmony with nature as both are interdependent. Similar views and notions are there in the teachings of Islam to be in harmony with nature and not to conquer or disturb its order.

Filial Piety in Islam and Confucianism

An important concept common to both Islam and Confucianism is filial piety. Filial piety means respecting one's parents. Respecting one's parents is explained in not only the Quran- the Holy book of Muslims but also in the *Hadith*- the sayings of Prophet Mohammed. Likewise, in the Confucian teachings honoring and respecting one's parents is also important. In both traditions, filial piety is not only limited to the worldly life but hereafter. The Quran is very emphatic on respecting parents on many occasions. Its injunctions upon the believers:

> And the Lord hath decreed that ye worship none but Him, and that ye be kind to parents. Whether one or both of them attain old age [while] thy life, say not to them [so much as], "uff," But address them in terms of honour. [Al-Isra: 23] (as cited in Tanggok, 2017).

In Analects, a book that records the collections of Confucius and his disciples, there is an abundance of human-heartedness, love, respect, and avoidance of wars with fellow human beings. Confucianism demands loyalty, sincerity, filial on the children's part, obedience, and faithfulness. The concept of *Li*, prevalent in the Analects, is interpreted as a ritual to honor parents. This teaching of respecting

parents has remained part of the Chinese culture till today, much like the same in the culture of Muslim societies.

Collectivism, Kinship, and Familial System

Chinese and Pakistani cultures practice and believe in collectivism over individualism, as both are part of the larger Eastern culture. Further, the Chinese and Pakistanis are group-centered, living and working together in the same place and group. They depend on each other in their lives and their work. Working for the reward and honoring the group and family is a common norm and practice in both cultures. Likewise, kinship and family systems are both powerful in the two cultures. Chinese are widely known for their help and support, both material and non-material, to other Chinese people, particularly in the rural settings of China.

This strong kinship is a significant source of social support for the less privileged segments of society in China. Similarly, the strong familial system in the Chinese culture makes China unique in contrast to many Western cultures. Despite globalization and individualistic tendency globally, the Chinese people seem to believe strongly in the family system, which is also considered a sign of collective development. In the context of Pakistan, this is equally true that most Pakistanis still have a strong familial system, and the religion of Islam itself puts more emphasis on the familial system and collective and inclusive development. Further, a familial system in the context of Pakistan is also a vital sign of an individual's identity.

Despite the seemingly two different worldviews, it is mainly in the ethical and spiritual characteristics of these religions and civilizations that we can find noteworthy similarities, which could be the impetus for forging dialogue and understanding between the two traditions of China and Pakistan.

Conclusion and Policy Directions

Recognizing the cultural differences is the first step in reducing the difficulties of dealing with disparate cultures, accommodating the differences, and forging a dialogue between the two cultures of China and Pakistan. For both nations to strengthen bilateral relations further, people-to-people contact and cultural understanding between China and Pakistan are pivotal. The cultural components and issues surrounding it remain un- explored, yet the key area in the bilateral relations between China and Pakistan. With the steady increase in the flow of people and interactions between the two peoples in the emergence of the China-Pakistan Economic Corridor, it is of potent significance to understand the cultural differences and similarities between the two nations. Such considerations are not only according to the increasing phenomenon of globalization, which will bring distant cultures and societies closer to each other but could also conform to the national interests and changing needs of China and Pakistan.

It is also argued that despite the deeply held political relations, the cultural component is more important to bring the two nations closers to each other to over-

come the stereotypical representations and sweeping generalizations of each other. Until the relations are understood at more cultural and people levels, the ties between China and Pakistan will remain incomplete. Moreover, the development of cultural corridors- by building and establishing more cultural ties between the two countries, would be helpful to identify the more commonalities embedded in the two cultures. Thus, new methods and measures used in the cultural exchange and cooperation between China and Pakistan, especially in the cultural industry, will significantly bring enormous economic growth and mutually beneficial ventures. It is believed that constructing the 'China-Pakistan Cultural Corridor' (CPCC) could offer an excellent model of cultural cooperation between the two nations and their ancient civilizations. With the growing ties between the two nations, both countries must openly accept the diversity of the cultures, learn from and respect each other. It is only through understanding the cultural differences and promoting the cultural similarities that the relationships between the two nations can be promoted at the cultural and people-to-people level, which is miserably missing in the existing relations between China and Pakistan.

The current study is a step toward addressing cultural differences by recognizing and accepting the differences between the two cultures. It has made a modest attempt to highlight the differences and similarities between the two cultures that could forge mutual understanding between China and Pakistan by recognizing and accepting the differences and promoting and enhancing their similarities. Finally, this study is by no means an encompassing one on an essential dimension of the cultural aspects of the Sino-Pakistan relations. Yet, it is a critical step along the road that still has much distance to be covered. Nevertheless, it is a step toward filling the lingering gap in the cultural issues between the two countries. With the steady increase of people to people to people ties, it is the need of the hour that future studies must build on to it for a deeper and more nuanced understating of the cultural challenges between China and Pakistan as the ties between the two countries keep on increasing in various spheres of mutual interests. Such studies could contribute to the theoretical knowledge and address the empirical challenges in cultural understandings and misunderstandings between the two nations.

It is concluded by arguing that to implement the CPEC, deepen the all-weather bilateral strategic cooperative partnership, and further boost a comprehensive and healthy development of the bilateral relationship, China and Pakistan should significantly improve their cultural understating and cultural exchanges. Therefore, a more efficient mechanism must be established, and appropriate and practical measures must be implemented to increase bilateral cultural exchanges and cultural understandings at different levels. This will enable the people of both countries to understand each other's cultures, worldviews, cultural similarities, sensitivities, and other essential aspects of their societies. Thus, the following policy guidelines are furnished to strengthen the ties between the two countries based on the current study.

First, it is time to strengthen the Sino-Pakistan ties beyond the political rhetoric; a more effective mechanism of cultural exchanges and people-to-people contact is established to forge more cultural understanding between the two people. To that end, besides the officials, people from different segments of society, like celebrities, artists, students, etc., must also be part of the cultural exchanges. Moreover, this mechanism should be given powers and resources to plan cultural exchanges and cooperative projects.

Second, more tertiary and academic exchanges and research need to be done regarding cross-cultural issues between China and Pakistan. Such interactions and academic explorations are of pivotal significance in underrating the cultural differences between the two countries and providing appropriate solutions to the factors hindering mutual understanding and building healthy and fruitful bilateral relations. Furthermore, within the framework of the CPEC, a China-Pakistan Cultural Corridor is a plausible initiative to understand and promote the cultural relations between the two countries that will lead to overcoming the existing cross-cultural issues. A community of cultural industries and building up a cultural corridor could be the catalyst in the emergence of a 'shared cultural cooperation model' between the two civilizations. Recently, efforts have been made to produce films and documentaries jointly. That seems a good step. Joint media productions can promote cultural understanding and remove misunderstandings and stereotypes about each other. More media interactions between the two countries can be fruitful for positive image building of both countries.

Third, along with the teachings of Chinese culture and the Chinese language in Pakistan, it seems imperative that a joint curriculum that combines the teachings and moral virtues of Confucianism and Islamic mysticism be taught as the two philosophies share much in common, centering on humanism and spirituality as their core values. Such an initiative will inculcate more tolerance and acceptance of the two disparate cultures.

Finally, although Islam has long remained part of the Chinese culture, the existing knowledge and understanding of Islam and Muslim civilization in Chinese society seem limited and narrow in scope. It is imperative that introducing Chairs on Islam in Chinese universities and academia on similar patterns as has been in practice in major Western universities could be a milestone in promoting the understating of Islam and bringing closer the two major civilizations.

Suggested Citation

Ali, A. (2023). Sino-Pakistan Cultural Relations: Challenges and Policy Directions. In *Silk Route Revisited: Essays and Perspectives on the China-Pakistan Economic Corridor and Beyond* (pp.110-124). CSC-KIU.

References

Ahmed, Z. S. (2019). Impact of the China–Pakistan Economic Corridor on nation-building in Pakistan. *Journal of Contemporary China, 28*(117), 400-414.

Alam, K. M., Li, X., & Baig, S. (2019). Impact of transport cost and travel time on trade under China-Pakistan economic corridor (CPEC). *Journal of Advanced Transportation, 2019*.

Azeemi, H. R. (2007). 55 Years of Pakistan-China Relationship. *Pakistan Horizon, 60*(2), 109-124.

Baig, S., Qasim, M., Xuemei, L., & Alam, K. M. (2020). Is the China-Pakistan economic corridor an opportunity or a threat for small and micro-entrepreneurs? Empirical evidence from Northern Pakistan. *Sustainability, 12*(5), 1727.

Baig, S., & Zehra, S. (2020). China-Pakistan economic corridor, governance, and tourism nexus: evidence from Gilgit-Baltistan, Pakistan. *Current Issues in Tourism, 23*(23), 2884-2889.

Brunner, J. A., Koh, A., & Lou, X. (1993). Chinese perceptions of issues and obstacles confronting joint ventures. *Journal of Global Marketing, 6*(1-2), 97-128.

Cetinkaya, K. (2011). Ren and Imán: A Comparative Approach to Confucian and Islamic Virtues. *International Journal of Business, Humanities and Technology, 1*(1), 135-143.

Ghanem, O., Xuemei, L., Alam, K. M., & Baig, S. (2021). The effectiveness of freight costs on trade potentials between China and European Union, Middle East, North African countries under China-Pakistan Corridor. *International Journal of Shipping and Transport Logistics, 13*(3-4), 327-359.

Hameed, M. (2018). The politics of the China—Pakistan economic corridor. *Palgrave Communications, 4*(1).

Hameed, R. (2017). Pakistan and China: Partnership, prospects and the course ahead. *Policy Perspectives: The Journal of the Institute of Policy Studies, 14*(1), 3-22.

Hurn, B. J., Tomalin, B., Hurn, B. J., & Tomalin, B. (2013). *What is Cross-Cultural Communication?* : Springer.

Javaid, U., & Jahangir, A. (2015). Pakistan-China strategic relationship: A glorious journey of 55 years. *Journal of the Research Society of Pakistan, 52*(1).

Jiqiong, W., & Keyu, Z. (2017). Thinking on the ways of cultural exchanges and cooperation between China and Pakistan under belt and road initiative. *J Pun Uni Hist Soc, 3*(2), 197-205.

Naeem, S., Butt, K., & Khanzada, B. (2018). The Impact of Pakistani and Chinese Cultural Differences on Project Success in Chinese Project Oriented Companies. *J Bus Fin Aff, 7*(323), 2167-0234.1000323.

Slate, E. (1993). Success depends on an understanding of cultural differences. *Human Resources Focus, 70*(10), 16-17.

Small, A. (2015). *The China Pakistan axis: Asia's new geopolitics*: Random House India.

Sorgenfrei, S. (2018). Hidden or forbidden, elected or rejected: Sufism as 'Islamic esotericism'? *Islam and Christian–Muslim Relations, 29*(2), 145-165.

Su, X. (2017). The Intercultural Adaptation of the Pakistani Students at Chinese Universities. *Universal Journal of Educational Research, 5*(12), 2236-2240.

Tan, C., & Ibrahim, A. (2017). Humanism, Islamic education, and Confucian education. *Religious Education, 112*(4), 394-406.

Tang, Z. (1995). Confucianism, Chinese culture, and reproductive behavior. *Population and Environment, 16*(3), 269-284.

Tanggok, M. I. (2017). *Filial piety in Islam and Confucianism [A comparative study between ahadith and the analects].* Paper presented at the International Conference on Qur'an and Hadith Studies (ICQHS 2017).

Yuan, W. (2010). Conflict management among American and Chinese employees in multinational organizations in China. *Cross Cultural Management: An International Journal, 17*(3), 299-311.

Zhao, Q. (2018). The influence of Confucianism on Chinese politics and foreign policy. *Asian Education and Development Studies, 7*(4), 321-328.

9

Geo-Politico Economic Significance of Gilgit Baltistan: From Antiquity to CPEC

Ashiq Hussain
https://orcid.org/0009-0004-1342-001X
Department of Politics and International Studies, Karakoram International University

Kifayat Ullah
https://orcid.org/0000-0002-4814-4463
Department of Economics, Karakoram International University, GB, Pakistan

Introduction

Historically, Gilgit-Baltistan (GB) was known as the Gilgit Agency before the partition of the subcontinent. Later, after the inception of Pakistan, this region became famous as the Northern Areas of Pakistan. It is part of the disputed state of Jammu and Kashmir between India and Pakistan since 1947. This region, GB, is now under the administrative control of Pakistan, though arguably the jugular vein of Pakistan. Gilgit Baltistan is of enormous geo-strategic importance because of its central placement and geo-politico-economic potential. Additionally, Gilgit Baltistan is situated at the junction of Central Asia, South Asia, and the ancient Chinese Silk Route. It is besides being an intersection since ancient times. Gilgit Baltistan has been strategically instrumental as a transit route, which brings forth adjourning and bordering states of Afghanistan, China, Azad Kashmir, and Jammu Kashmir, respectively. This Chapter aims to analyze the geo-strategic location, placement, and importance of Gilgit Baltistan amidst the ongoing developments in the region. Such analysis is expected to generate debates though the research sees the ongoing developments as having vital implications for regional powers. Moreover, through data-driven analysis, the research claims that Gilgit Baltistan portrays Pakistan as a vital geo-strategic country in the region. Although GB still maintains a certain degree of controversy, , GB does not simply make Pakistan meaningful, but equally accords Pakistan the most strategically placed country in the region.

Gilgit Baltistan is in the middle of Asia, which gives it a strategic importance that requires much research. This is especially true because it is at a crossroads between the three fastest-growing economies in Asia. Arguably, with all her potential, GB is a vital arena for the consolidation of regional integration, which by extension, can dampen the growing animosity amongst the competing regional states.

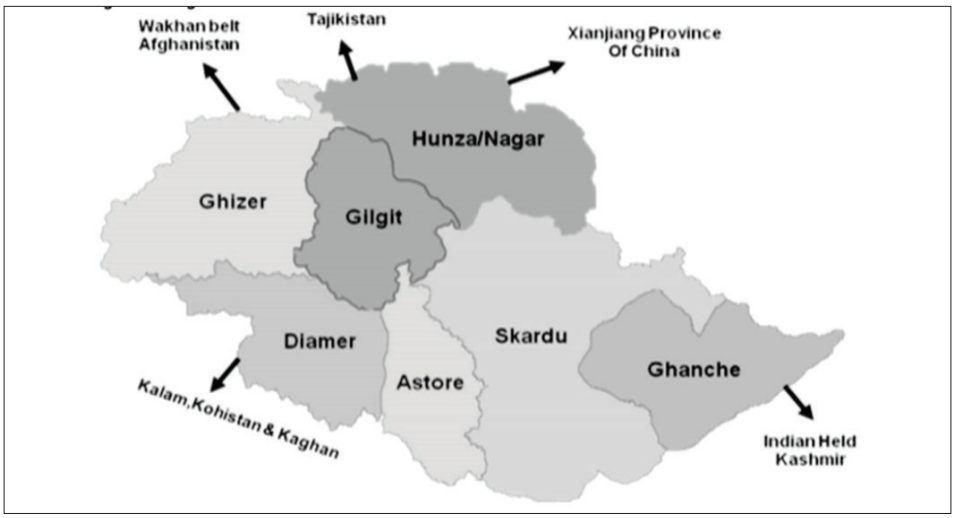


Figure 1: Geo-strategic Placement of Gilgit Baltistan in the Context of Regionalism

Gilgit Baltistan (GB) is a mountainous region of immense strategic and geographic significance, which is bestowed with geo-corridors enriched with significant natural resources ever exploited by powerful states of all times. In ancient times, great powers flexed their influence within and around GB. During the sixth century, the Gilgit Baltistan region was called "Brooshal," and later, this region became "Balawristan," up to the mid-twentieth century, this region was known as Dardistan, and during the reign of Maharaja Kashmir, it was called Gilgit Agency/Northern Areas and at present it is called Gilgit Baltistan (GB). Since the partition of the sub-continent, the ruler of Jammu and Kashmir, Hari Singh, forcefully annexed Gilgit and Baltistan region with the help of the British to the princely state of Jammu and Kashmir; in this way, Gilgit Baltistan became part of Jammu Kashmir. In 1935, Maharaja Hari Sing leased Gilgit Baltistan to British India for only seventy-five thousand. When World War II ended, British power weakened within the subcontinent region. Despite cutting in its rule, the British handled the situation cunningly and proposed two options to the states under the British Raj and their rulers to join any of the two newly born states of India and Pakistan. Taking advantage of the condition, the commonalities of the entire GB region stood up against the rule of Kashmir Hari Sing, and the people of GB started revolting; it was on 1 November 1947 that the people of Gilgit-Baltistan succeeded in getting freedom, marking an end to the Dogra Raj. On 16 November, the newly born state of Gilgit-Baltistan decided to join Pakistan. Gilgit Baltistan is still allied with Pakistan as an independent and autonomous state. So far, it is not a constitutional part of Pakistan and enjoying a de facto political status. Emerging powers like China, Pakistan, India, Afghanistan, and the Central Asian Republics are increasingly interested in Great Britain. Gilgit Baltistan is the place where the three highest mountain ranges in the world meet. These are the Karakoram, the Himalayas, and the Hindu Kush. GB's borders are set up so that Pakistan's Khy-

ber Pakhtunkhwa province is to the west, Afghanistan's Wakhan Corridor is to the north, and China is to the east (Wakhan is a 10 miles narrow stripe that splits GB Pakistan from the Central Asian Republic, Tajikistan). Also, China is located northeast of the GB region. AJK in the southwest, and Jammu and Kashmir, controlled by India, in the east and southeast. Constitutionally, Great Britain has a confusing status, and Pakistan oversees running it.

Gilgit Baltistan has an area of 72,971 square kilometers and got its freedom from the ruler of the princely state of Kashmir in 1948. It is estimated that about 2.3 million people are living there. It comprises Gilgit and Baltistan divisions, seven districts, and 22 tehsils. Its legislative assembly comprises a total of 34 members with limited powers. Initially, GB was administrated by the KPK; a junior civil servant from KPK province was administrating GB as a political agent, and later, GB was handed over to the Kashmir affairs ministry where the new viceroy was the joint secretary. During the 1970s, the then-premier of Pakistan, Zulfiqar Ali Bhutto, introduced the regular administrative structure in GB; in 1994, prime minister Benazir Bhutto introduce a legal framework order, giving GB limited authority over local affairs through an elected body. Furthermore, in 2009 ex-president Asif Ali Zardari promulgated an empowerment order known as the self-governance order 2009 that gave the region its distinct identity as Gilgit Baltistan. Some of the largest glaciers in the Polar Regions, like Hisper, Biafo, and Baltoro, are in the region GB. These glaciers are a great source of fresh water. It also has a lot of different kinds of gems and many minerals that are very valuable. Five mountains in this area are higher than 8,000 feet, and more than forty mountains are higher than 7,000 feet. Karakorum Highway, once known as the famous silk route, is the only road connecting Gilgit Baltistan to the rest of the country and China. In the past, Gilgit Baltistan was the only way for China and India to get into central Asia and, from there, into the heart of Europe along the famous old silk route. Ancient empires from India, Persia, China, Tibet, Russia, and Britain all wanted to control this area because of how important it was for their military plans. This area is important from a strategic point of view, not just because of what happened in the past but also because of what will happen in the future. Gilgit Baltistan is where China and India meet, and both countries have strategic plans for the area site. In this way, China, and Pakistan work together to help Gilgit Baltistan grow and develop. China is putting money into big projects in Gilgit Baltistan. These projects include building the region's infrastructure, like improving the Karakorum highway, which is very important to China. In the Gilgit Baltistan region, Beijing has a quick and easy way to reach the Indian Ocean and the Arabian Sea. Updating the Karakorum Highway would be very good for China. Pakistan and the nearby economies connect the Gwadar port in Baluchistan, Pakistan, on the Arabian Sea to the rest of China. It takes China 18 to 25 days to use sea lanes. To get oil from other countries. If they used the Karakorum highway, it would take those 48 to 72 days. Overall, Gilgit Baltistan gives China a way into the Arabian Sea and offers China a better way to deal with other countries that compete with her (Z. Hussain, 2018).

Pakistan needs to be more focused on getting the most out of Gilgit Baltistan's central location from a geostrategic point of view. This area has geo corridors, making Gilgit Baltistan even more critical for Pakistan. Pakistan knows what this narrow, steep corridor means for its geostrategic goals in the area. Gilgit Baltistan has become a hub for getting to the mineral-rich in central Asia, including Turkmenistan, Uzbekistan, and Kazakhstan. In the same way, China and Pakistan are using the central location of Gilgit Baltistan to further their geostrategic and economic goals. On the other hand, India is figuring out how big and important the China-Pakistan axis is in the Gilgit Baltistan region and keeping an eye on it. India's national interest is becoming increasingly tied to the resource-rich countries of central Asia and Afghanistan, as well as to land access to the markets of Europe. Gilgit Baltistan acts as a barrier and is the cheapest and easiest way for India to get to and from Europe. Meanwhile, when Pakistan's Prime Minister, Muhammad Nawaz Sharif, went to New Delhi to join the swearing-in ceremony of India's Prime Minister, Narendra Modi, both leaders were advocates of open borders and the growth of South-Central Asia (SCA) trade. Both countries have previously expressed policies to promote trade corridors, whose benefit will also extend to Afghanistan. In his last tenure in the 1990s, Prime Minister Muhammad Nawaz Sharif made efforts to reopen the Skardu-Kargil route with support from the then-premier of India, Mr. Atal Bihari Vajpayee. During a recent conversation, Muhammad Nawaz Sharif has shown readiness to pick up the thread of their earlier peace negotiation from the 1990s. One can see the light at the end of the tunnel after the BJP's vice president, Abbas Naqvi, whose party came to power with a triumph victory, emphasized and called for the reopening of the Skardu-Kargil Road on regional priority bases. Even if the ordinary people from both countries continue to support their leaders for bilateral cooperation, then both leaders of India and Pakistan are willing to create a significant legacy for the people of the entire region and can create a pacifist environment and long-lasting ties between the two neighboring states. So, because Pakistan is in GB, it has been able to stop India from getting to Central Asia, Afghanistan, and the heart of Europe through Gilgit Baltistan, which is the easiest and cheapest way for India to get there. Also, India is more worried about China's presence in the Gilgit-Baltistan region. India doesn't like China being there, and it says China has terrible plans for Kashmir. China and Pakistan recently signed 51 projects worth 46 billion dollars as part of the CPEC (China-Pakistan Economic Corridor) project. As part of this project, China will invest in different projects in Pakistan to help it grow. Gilgit Baltistan will be a critically vital part of this CPEC project because it is the entry point. Also, China and Pakistan plan to work on a proposed railroad that will run from Khunjerab Pass (Gilgit Baltistan) to Abbottabad, Pakistan. With the help of Pakistan, there is also a plan to build a gas pipeline from Iran to China. This pipeline would go through Gilgit Baltistan, which is in the Himalayas.

Gilgit Baltistan the Strategic Juncture

Geologically, a place is important due to its strategic location, natural resourc-

es, or proximity to other significant places (Pomeroy & Douvere, 2008). Gilgit Baltistan holds great importance from a strategic perspective because mountains surround it and are close to ancient and powerful countries while possessing abundant natural resources. Comprising mostly of mountains, Gilgit Baltistan boasts five peaks higher than 8,000 meters and over fifty peaks surpassing 7,000 meters. Notably, Nanga Parbat is the world's highest mountain, with K2 (Godwin Austen) ranking second highest. Gilgit-Baltistan plays a crucial role in Pakistan's status as a geostrategic country, with multiple reasons supporting this assertion.

Gilgit Baltistan lies between 71- and 75 degrees east longitude and 32- and 37 degrees north latitude. It shares borders with Pakistan's Khyber Pakhtunkhwa (KPK) province to the west, Afghanistan's Wakhan Corridor to the north, and China to the east (Wakhan is a 10-mile narrow strip that separates Gilgit Baltistan Pakistan from the Central Asian Republic, Tajikistan). Additionally, China, a close ally of Pakistan, is located northeast of the Gilgit Baltistan region, making it the only point of convergence between the two countries. Azad Jammu and Kashmir (AJK) lie to the southwest, while Indian-held Jammu and Kashmir are situated to the east and southeast (Chaudhry, Hussain, Baloch, & Dawood, 2021). Gilgit Baltistan has a controversial de facto constitutional status, and Pakistan governs its affairs.

With an area of 72,971 square kilometers, Gilgit Baltistan gained its independence from the ruler of the princely state of Kashmir in 1948. The estimated population of the region is around 2.3 million people. It is divided into seven districts and 22 tehsils, forming two divisions: Gilgit and Baltistan. The de facto legislature comprises 34 individuals, although their powers are limited.

Gilgit Baltistan holds immense geographic and strategic significance. Throughout history, empires have utilized the region's geo-corridors as vital pathways. The Gilgit Baltistan passes, now referred to as corridors, witnessed clashes between the world's greatest empires. For instance, the Tamarians confronted and expelled the mighty Mughal Empire of the subcontinent from Gilgit Baltistan. During the 19th and 20th centuries, the British and Russian empires engaged in the "Great Game," vying for control over Gilgit Baltistan due to its pivotal position. Ultimately, the British Empire emerged victorious. Presently, major powers like China (located nearby), Russia (in Central Asia), the US (in Afghanistan), and India (which has occupied Kashmir) all lend their support to the region. Gilgit Baltistan undoubtedly represents the convergence point of empires and is recognized as the axis of Asia. Its location makes it a crucial trade hub between various regions.

China has displayed considerable interest in the development of Gilgit Baltistan. Since the 1960s, China has been actively involved in the region's progress. The Chinese government has invested billions of dollars in mining minerals, constructing dams, establishing industries, and improving communication networks (Ghanem et al., 2021). Meanwhile, India remains concerned about China's presence in Gilgit Baltistan, given the ongoing territorial dispute between India and

Pakistan, both nuclear powers (Chellaney, 2011). China aims to access the Gwadar port through Gilgit-Baltistan, which offers the shortest and most convenient route for China to reach the energy-rich Middle East—a significant market for Chinese goods. Consequently, China has dispatched numerous workers to Gilgit-Baltistan for infrastructure projects and the construction of a highway (Baig et al., 2020). It is anticipated that China will invest over 30 to 40 billion dollars in Gilgit Baltistan in the future to develop dams, undertake large-scale projects, and establish rail and road connections between its province of Xinjiang and Gwadar (Alam et al., 2019). Among various factors, several primary reasons contribute to making Gilgit Baltistan a highly important strategic location.

Figure 2: Anglo-Burusho War 1892

Glaciers

One of the main fascinating characteristics of Gilgit Baltistan is its clusters of mighty glaciers. Particularly the great Karakorum is unmatched globally for its abundance in valley glaciers outside of the Polar Regions (Flowerday, 1998). Among them, one of the well-known glaciers is the Siachen glacier which is approximately 75 km in length, while the Hisper glacier is 61 in l;, on the other hand, Batura glacier is 59, and the last one is Baltoro which is 55 km in length. There are more than 100 glaciers that are 10 km in length; almost 15000 km of Karakorum Range is damp with glaciers. These glaciers are both valley glaciers and hanging glaciers. These glaciers are the significant resources of water for the rivers of the Indus River system (Hewitt, 2014).

The Indus River System

People call the Indus River "Pakistan's lifeline" because it is the leading waterway and country's main water source. The Indus River is a big part of the culture and history of Pakistan. Its source is in the Himalayas, which are in Tibet. It flows northwest through Gilgit Baltistan, then turns south and flows the length of Pakistan. It is between 1800 and 2000 miles long in total. The river Indus is thought to have helped start the Indus Valley Civilization, one of the world's first great civilizations. Since ancient times, earthquakes and other changes to the land have caused the river's path to change. Today, it is dammed at Tarbela, on the Himalayas' slopes between Peshawar and Rawalpindi. Soon after Pakistan got its independence in 1947, the British kept the river's headwaters in India on purpose. From time to time, India would stop the flow of water into the Indus River. India would sometimes use these headwaters as a "water bomb" against Pakistan, which caused a dire situation there. As David. E. Lilienthal said, no country could do as much damage to a country with bombs and shellfire as India could do to Pakistan by permanently cutting off the water sources that keep the fields and people of Pakistan alive. Pakistan's only way to stop India from blackmailing it over water is to build dams on the many glaciers in the Gilgit Baltistan region to store water and make hydroelectric power to solve its energy crisis.

The Karakoram Highway

The Karakoram highway is thought to be one of the longest roads in the world. It took China and Pakistan 20 years to build, starting in the 1960s. The Karakorum highway is also called the Friendship Highway between Pakistan and China. It opened in 1978. The KKH starts near Islamabad Hassan Abdal on the Islamabad-Peshawar highway and goes through Abbottabad, Manshera, and across the River Indus near Thakot. It then goes to Gilgit, Chilas, Hunza, and Sost through the Khunjerab pass and enters Kashgar in the Xinjiang province of China through the Pamir plateau. The National Highway Authority (NHA) of Pakistan and the Chinese State-owned Assets Supervision and Administration Commission both work together to run the Karakoram Highway (SASAC). Due to the rough terrain, building a highway at this height was no easy task. It goes almost 310 km along the river Indus and goes over the Gilgit, Hunza, and Khunjerab rivers. It is the highest metaled road in the world, with a height of about 4,733 meters near the Khunjerab Pass. The opening of the KKH was a major turning point in Gilgit Baltistan's history, and it had very important strategic effects (Baig & Zehra, 2020). China and Pakistan now have more and better ways to trade because of the highway. It has made the Gilgit Baltistan region and Pakistan look better.

Geo Corridors

The Gilgit-Baltistan region in one hand rich in natural resources is also endowed with geo corridors which are of great significance for the region as well as the country itself. In past, these corridors of this region were called passes and the

great powers and empires of past sought these passes to counter each other. Some of the corridors which are of great strategic important are Karakorum corridor between China Pakistan, previously it was known as the Khunjerab pass by now scholars and academicians called it the China Pakistan economic corridor. The Khunjerab pass connects Hunza Gojal Gilgit Baltistan with Kashgar in the Xinjiang province of China through the Pamir plateau (S. A. Ali, Haider, Ali, Ali, & Ming, 2017). It is situated at a height of 4800 and it was open for traffic in 1978 since than China and Pakistan are having a limited bilateral trade along with a dry port near Hunza which was built with the collaboration of China to bolster trade between China and Pakistan. Whereas the Wakhan corridor lies to the northwest of Gilgit Baltistan, Wakhan lies in Afghanistan, which is a narrow strip, 225 km long and 16- 22 km width which separates Tajikistan from Gilgit Baltistan Pakistan. Wakhan borders with Ghizer district of Gilgit Baltistan. Historically, Wakhan region was an integral part of Ghizer district Gilgit, but in 1895 The Wakhan was given to Afghanistan by the British-Russian Boundary Commission to made Afghanistan a buffer state between the Russian and the British empires. Besides, Wakhan borders with KPK province of Pakistan. The regional governments of China Afghanistan Tajikistan and Pakistan are sketching plans to transform Wakhan into a regional corridor, while presently China is active stakeholder in developing the Wakhan region. Last but certainly not the least is Skardu Kargil road between India and Pakistan, Skardu lies in Pakistan while Kargil is in Indian side of the Line of control between India and Pakistan. Skardu Kargil road was sealed in 1970, s because of severe tensions between India and Pakistan (Lavoy & Lavoy, 2009). This road has much likely potential to become a regional corridor between India and Pakistan if statist and selfish notions are set aside and proper attention is paid to reopen Skardu Kargil road for the development of both India and Pakistan. In this way both countries can be enabled to transform the (LOC) Line of control into Line of Commerce.

Gilgit Baltistan the Strategic Juncture that Accrues Geo Strategic Importance of Pakistan

Given the significance of its location and placement in a very strategic zone, Pakistan accumulates key positioning in the global arena being one of the very important geo strategic countries with a unique geography. It is that geographical factors which mainly inform, constrain, or affect political and military as well as economic planning about any region and the country at particularly. Geography is also known as the mother of strategy, and it is a very important part of world politics. Geographic centrality is seen as a natural source of power, just like tangible and intangible sources of power. As the word "geography" includes the physical features of a place, it is the unique physical features of a place that make it geo strategically important. For example, in ancient times, the main difference between Sparta and Athens was where they were located strategically. Athens was in a better position than Sparta, which made it a rich, cosmopolitan, maritime power. While Sparta's toughness and poverty were caused by its poor economy

and strategic location.

Pakistan Located in the northwest junction of the Indian subcontinent and it acquires one of the best geographic positions which is of great historic importance. Pakistan with Its strategic placement and its role in the prelude of early civilization, its influence as a crossroads of political and religious ideologies has kept it at the forefront of world events. Historically, contemporary Pakistan has remained a gateway and a window between European continent and the Asian subcontinent or between East and West. The culture and history of Pakistan have been developed by the innumerable raiders, traders, and colonizers who have been a part of its past. Some, like Alexander the Great and his conquest of this region, merely passed through but left an eternal mark on the land and people of Pakistan. Furthermore, the Arab armies' penetration of this region and spread Ness of Islam whereas, the British who introduced the ways and heritage of the West became an integral part of the region's culture and character.

Pakistan to its north, northeast, south, and west, has natural barriers of high mountain ranges and vast sea which have sheltered Pakistan. Whereas, to its southern side, the land of Pakistan spills out into the Deccan peninsula f India (Allchin & Allchin, 1982). The river Indus, which is known as the all-weather river, the lifeblood of Pakistan flows via the mighty mountains into the plains of Punjab and Sindh which keeps the people and fields ever green. Based on its topography Pakistan can be divided into three basic geographic areas, the mountainous northern highlands, the Baluchistan Plateau, and the Indus River plain. Pakistan's southern border formed by Arabian Sea. It shares western northern and southern border with Iran and Afghanistan and to the east India. Pakistan and Tajikistan are separated by a thin arm of Afghanistan's Wakhan region, which runs along the northern border of Pakistan. Tibet and the province of Xinjiang in China are to the north and east, respectively. Pakistan is connected to the Persian Gulf and is the only way to get to China and the rest of South Asia. Central Asian countries that are surrounded by land can get to warm water through Pakistan and into the Arabian Sea. It shares a border with India that is the longest. Also, it is close to the Persian Gulf, which has a lot of oil. Pakistan is very close to the Strait of Hormuz. It connects South Asia with Southwest Asia. The Khyber Pass is a way to get to Afghanistan, and the Karakoram Highway is a way to get to China (Fazzini, 2018).

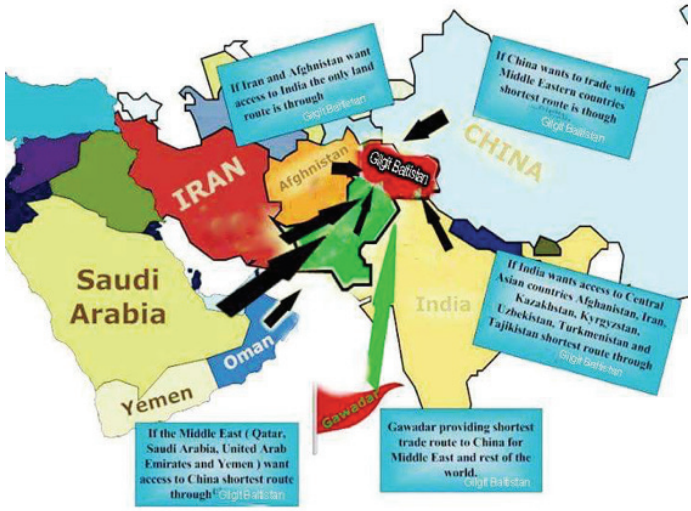


Figure 3: Gilgit- Baltistan Epic Center

The Strategic Significance of Gilgit Baltistan in Regional and Global Politics

Gilgit Baltistan is an important area that has always been very important from a strategic point of view and will continue to future. This area is called the "early axis of Asia" because it is where South Asia, Central Asia, and East Asia all meet. This is where three empires met. Along the old Silk Route, India and China used Gilgit-Baltistan as their entry point to Central Asia and beyond, all the way into the heart of Europe. Gilgit Baltistan a region with immense geopolitical significance contested by two nuclear powers India and Pakistan and third nuclear power China which is the direct stakeholder, heavily investing in the region. Many observers believe that geopolitical significance of the Gilgit Baltistan region is rising day by day, given the fluidity of strategic equations in South Asia. An important strategic design of Gilgit Baltistan is unfolding that has great implications for the region in general and the world at particularly (Feyyaz, 2019). Lies between the mountain ranges of Hindu Kush, Karakoram and Western Himalayas, Gilgit-Baltistan lies at the confluence of Central Asia, China, and South Asia. It borders Wakhan Corridor of Afghanistan; Xinjiang Province of China, Pakistan's Khyber Pakhtunkhwa Province, Pakistan occupied Kashmir and Indian occupied Jammu and Kashmir. Whereas the geography of Gilgit Baltistan offers the advantage of being the dynamic hub for trans-region exchanges. Certainly, Pakistan and China, have exploited the importance of this region to further their geo strategic and economic objectives while India has watched from the side lines measuring the magnitude and impact.

Gilgit Baltistan is a resource-rich area with a lot of valuable metals like uranium, copper, gems, and gold (Bhattacharjee, 2019). There are also glaciated water bodies that cover an area the size of South Carolina and provide water to the area.

Regional powers seemed to ignore Gilgit Baltistan's unique strategic location for a few years, but in the last few years, it has quickly come to the attention of the rest of the world. This is because the Chinese have not only set up a foothold in the area but have also increased and consolidated their economic and military power there. The Red Dragon's (China's) plans for this area will have serious security effects, especially for India, soon. Selig Harrison, one of the best-known American analysts, said that between 7,000 and 11,000 Chinese People's Liberation Army (PLA) workers had been sent to Gilgit Baltistan under the guise of doing engineering and civil work.

The Karakorum corridor is the only one that is currently being used. At the southern end of the Karakorum corridor is the very important Gwadar Port on the Arabian Sea and the Pak naval bases, which are also close to Gwadar, where the Chinese have built a modern deep seaport for both the Pakistani and Chinese navies to use in the future. The latter now has access to the Arabian Sea and the Persian Gulf and can transport and protect its energy and other commercial supplies coming from West Asia and Africa. It can also keep an eye on cargo and oil tankers carrying supplies to countries that aren't friendly to China and, if necessary, stop them.

With the help of a high-speed rail and road link through the Karakoram Highway in Gilgit Baltistan, China will be able to get goods from Gwadar to the Chinese mainland in just 72 hours (Sering, 2012). Currently, it takes Chinese oil tankers 16 to 25 days to get from the Gulf to Chinese ports through the Malacca Straits and the indirect sea route. So, the Chinese have been spending a lot of money to improve and widen the Karakoram Highway from 10m to 30m so that it can be used in any weather. So, soon, Gwadar port will help Pakistan keep its grip on the world's energy supply. This port and corridor would be a major threat to India's energy security and have big effects.

China has also done a lot in Pakistan-occupied Kashmir, especially in Gilgit Baltistan. For example, the Karakoram Highway or the Energy Corridor were built quickly and with a lot of focus, and the Gwadar Port was built quickly and with a lot of focus. But China is also widening the Jaglot Skardu road, which is 165 km long, and the Thakot Sazin road, which is 135 km long (Shahzad, 2019). This will cost PKR 45 billion, with China paying 85 percent of the cost. In addition to the work being done to widen the Karakoram Highway, difficult work is being done to finish the rail link from Kashgar in the remote province of Xinjiang via the Karakoram Highway to Havelian near Rawalpindi. It has been said that 22 huge tunnels have been built in Gilgit Baltistan along the Karakorum Highway. These tunnels could be used to store many deadly missiles.

So far, Pakistan has been able to stop India from getting to Central Asia. With help from China, Pakistan is using Gilgit Baltistan as a key strategic weapon against India. India's loss of Gilgit Baltistan has led to its "encirclement" and "containment" in the South Asian region. This will have increasing geostrategic

costs in the future, as India's interests become more and more tied to the new countries of Central Asia and to land access to the markets of Europe. As China races across the Central Asian Republics to build a new and modern "land bridge" to Europe, the economic viability of a wide range of Indian exports and the competitiveness of large parts of the Indian economy will depend on getting similar land access. This will almost certainly be denied by Pakistan, which has even blocked India's transit.

Last but certainly not the least, many other experts understand and have expressed that this region Gilgit Baltistan could be a battleground between Pakistan and China on one side facing the US and India on the other side. In addition, reliable reports also indicate that China and Pakistan are shortly going to reveal a plan for the Joint Military Management of Gilgit Baltistan, which thus has worrying implications in the long run for India.

Gilgit Baltistan a Potential Junction for Regional Integration

Certainly, a region accumulates prominence either due to its strategic centrality and placement, availability of resources and proximal significance. Apparently, Gilgit Baltistan is a mountain locked region, but having vast strategic importance not only in geopolitical perspectives but in geo economic perspectives as well. Though Gilgit Baltistan is a disputed but important platform (region) simultaneously in terms of its proximity with emerging regional and global economies and besides which is gifted with abundant natural resources, thus having all required qualities to become a pragmatic platform for regional integration. Since Independence, the regional powers like China, India and Pakistan have always allowed their national sentiment to over cloud their relations, rather than optimally exploit areas like Gilgit Baltistan that can underpin regionalism, progress, and development on equally acceptable terms.

The power of regionalism has been witnessing by the world since the dawn of the 1950s, not only as an essential spirit of world system, but the profits rooted in such thinking. Despite, several, and severe vendettas amidst the great powers of Europe eventually their transition from a fragmented to an integrated nationalism or regionalism reshaped the political landscape of Europe. The creation of a common identity and regionalization practice by the Europeans is like a beacon which has shown rest of the world that enmity and animosity are only relevant in projecting the realist understanding of international politics.

Gilgit Baltistan is holding the pleasure of changing the entire adjacent region if satisfactory attention can be paid to the importance of this region beyond the sentiment of politics. The region Gilgit Baltistan geographically is the juncture of regional powers as it is evident that such juncture can be a platform for deeper cooperation based on shared historical relations towards regionalization of a particular area.

Since ancient times, Gilgit Baltistan is holding the privilege of barter trade be-

tween various civilizations via old silk route which spanning through the heart of Gilgit Baltistan region. Since the ancient times, mobility of people and trade was an important aspect of civilizations. This is also equally true for the modern period as well, whereby nations try to initiate and establish economic corridors to meet their requirements and to dampen hatred and animosity.

However, since the dawn of independence, the adjoining sister countries, China, Pakistan, and India has followed the hawkish policies towards each other, such a hawkish policy by the immediate neighbor resulted into many vendettas and creation of a hostile environment within the south Asian region and we know, vendettas only bring under development, war culture and resulted the triumph of realism only. Except, China and Pakistan have adopted dovish policy towards each other, since the détente between China and Pakistan from 1960's onward both countries have friendly, trade and strategic terms and both are unanimously working for utilizing the potentials like centrality and natural resources of Gilgit Baltistan.

The joint effort of Pakistan and China over the Karakorum corridor is a testimony to this reality and which most scholars call, revival of old silk route by both countries. Obviously, the Wakhan and proposed Karakoram rail corridor will be complementing the Karakorum corridor. All these corridors will be instrumental in bolstering regional integration if well planned and adequately managed onto implementation level. As it is rightly known, that Gilgit Baltistan is famous as the juncture, where three empires met, known as the axis of Asia. The implication of this strategic location lies in connectivity and transit. In addition to the numerous historical passes adjourning to Gilgit Baltistan, it can be modern day effective and integrated economic gateway, facilitating the mobility of trade and people from Afghanistan to central Asia, India to central Asia, Iran–Pakistan-China gas pipeline via Himalaya ranges (Gilgit Baltistan) and China to Arabia peninsula. In addition, this will also bring the landlocked region of CARs closer through the connectivity that Gilgit Baltistan provides. Of significant important, is the fact that Gilgit Baltistan will be reverberating and revamping the traditional silk route spanning from Myanmar, Bhutan and Nepal, all gaining accessing to CARs via the gateway of Gilgit Baltistan. All of these are indication to the strategic importance of Pakistan which evidently rest of Gilgit Baltistan on one hand and on the other process of regional integration. Lastly, with the growing strength of China-Pakistan relations and the formation of an economic corridor, popularly known as China-Pakistan Economic Corridor, the two countries have shown the possibility of regionalism on mutually acceptable terms. Gilgit Baltistan is possibly capable not just a melting pot of cultures and civilizations, but an important gateway and corridor to boost economic and human mobility amongst the nations of the region, hence a very effective platform for regional integration.

Likely, Chinese presence and rebuilding of Gilgit Baltistan might be indispensable to ensure the comprehension of its development plans for the Chinese Xinjiang province. Furthermore, the building of infrastructures i.e., railway and roads

in Gilgit Baltistan appears essential to connect Xinjiang autonomous region to the Gwadar port, in the Balochistan province of Pakistan, at the mouth of the Karakorum highway in Gilgit Baltistan which is the prelude of regional integration.

China Pakistan economic relations were carried on at a minimal level. A couple of decade's back, both China and Pakistan, despite being very close friendly neighbors, there was no effective mechanism for communication between them. The Karakoram Highway, which opened in 1978, enabled bilateral trade between them, which is now becoming a one belt one route. Time has proven that both China and Pakistan is involved in active regionalism.

Besides the Karakorum corridor between China and Pakistan the next essential corridor is the Wakhan corridor bordering with Gilgit Baltistan region. Wakhan is a narrow strip which splits Tajikistan from Gilgit Baltistan Pakistan. The Wakhan corridor is nearly 225 kms long and between 22 kms wide. Besides, it borders with Khyber Pakhtunkhwa in Pakistan, China, and Tajikistan and is, therefore, of immense strategic significance. The Wakhan was given to Afghanistan by the British Russian Boundary Commission in 1895 to made Afghanistan a buffer state between the Russian and the British empires. Historically, the Wakhan region was an integral territory of Ghizer district Gilgit Baltistan which was subsequently assigned to the ruler of Afghanistan by the British India to make Wakhan a hedge against the czarist Russia. During 1882, fresh disturbances had been created by the ruler of upper Kaskar State, Pahlawan Bahaduar, who ruled Yasin, Kuh, Ghizer and Ashkuman ranges and lands, Mir Ali Mardan Shah held Wakhan region, and he resisted the Afghan writ over Wakhan, both local rulers got removed by the British empire to make sure the writ of Afghanistan over Wakhan corridor and forcefully displaced the indigenous population of Wakhan. As a result, Phalwan Bahaduar lost all his state, while Mir Ali Mardan Shah was compensated with Ashkuman, and in 1906, Yasin, Kuh and Ghizer were made in one district while gifted Wakhan to Afghan ruler Abdul Rehman by British India. Presently, Wakhan is attracting the attention of regional and global powers, why because Wakhan has a tremendous potential to become a regional crossroad amidst the adjacent countries and it is the pot where four powers converge namely, Afghanistan, China, Tajikistan, and Pakistan. Wakhan corridor is the easiest and cheapest gateway for Pakistan and India to access the mineral rich region of Central Asia and Europe and vice versa.

Lastly, it is the Skardu Kargil road between India and Pakistan which has been sealed since 1970's due to the ongoing vendetta between both countries. This road is of great significance for trade liberalization between Pakistan and India but sadly due to hawkish and suspicious policies between Pakistan and India towards each other, both countries seem reluctant for reopening of Skardu Kargil road. However, other federating units or limbs of India and Pakistan are enjoying trade relations with each other except Gilgit Baltistan and Ladakh, Kashmir. Now the time has come that both India and Pakistan should have to set aside the problems and resolve these problems at table instead of belligerent means, which

are the main bone of contention and are barriers towards regional development, cooperation, and regional integration. Both countries have much in common if they not let the statist and realist notions to over cloud the reason. Arguably, now the need of the hour is to promote a sense of Weeness instead of thine and mine to enable an active regionalization and regional integration for the betterment of the region and the people.

China Pakistan Economic Corridor (CPEC) and Gilgit-Baltistan

China Pakistan Economic Corridor (CPEC) is one of the significant milestones between People Republic of China and the Islamic Republic of Pakistan. Both countries are good friendly neighbors, since their very inception both countries have close diplomatic and economic ties with one another. It has become an axiom that their friendship is higher than mountains and deeper than ocean. People Republic of China is one of the raising great powers of this century, which has real acumen to challenge the status quo hegemons of the world. The great French General Napoleon Bonaparte was right what he said about China, once he said|" Lets China sleep, when it wakes it will shake the world". Now, China has awakened from her deep slumber, and it is becoming the Fourth Rome and astonishingly, now all Roads lead to China.

People Republic of China has taken some great initiatives to revive its Old Silk Route with a new name Belt and Road Initiatives (BRI) through this mega project China is going to invest and develop a strong infrastructure in more than 150 countries. Under BRI Project China is going to connect these 150 countries through seven corridors via land and sea, CPEC is one of these corridors. China Pakistan Economic Corridor is one of the important and significant corridors, many experts believe it as the Game changer and called it economic harbinger for Pakistan.

Under CPEC, the Chinese government will invest more than 46 billion US dollar in various sectors of Pakistan. Gilgit Baltistan is one of the crossroad and gateway of China Pakistan Economic Corridor (Naz, 2018). Moreover, G.B is the immediate neighbor of China and the Khunjerab pass in Gilgit Baltistan is the entrance of CPEC, it connects China to Gwadar in Strait of Hormuz in Persian Gulf. Unfortunately, it is evident that the actual beneficiaries which will take the lion share will be the bigger provinces and not the small realms like Gilgit Baltistan. This unjust approach of the federation is enhancing a sense of deprivation and discrimination among the masses of Gilgit Baltistan. The political elites and the people of Gilgit Baltistan have many grievances regarding the ongoing projects of CPEC (E. Hussain, 2019b). The Chinese government has given full representation to its least developed region namely Xingjian region but there is no representation of Gilgit Baltistan and other smaller peripheries in Joint Coordination Committee (JCC), JCC is the central decision-making body of China Pakistan Economic Corridor. This negligence of Pakistani government in representing smaller peripheries like Gilgit Baltistan would be an Achilles Heel for China Pakistan Economic Corridor.

Dancing around the fire is not the exact solution to any problem, If the federation of Pakistan wants to make CPEC a real economic harbinger and game changer it should not leave any stone unturn in addressing the grievances of smaller regions and the peripheries, so that Pakistan will fully ripe the benefits of CPEC, the success of CPEC and equal distribution of its projects will make Pakistan a country where prosperity, integrity, wellbeing and dignity will be all around (Le Guin, 2017).

Conclusion

Geographically, a place accrues importance either due to its strategic location, availability of resources and proximal significance. Gilgit Baltistan (GB) is a mountain locked region, but having enormous strategic importance, both in terms of her proximal location with ancient and great powers and endowed with abundant natural resources. The very importance of Pakistan as a strategic country indisputably rests in GB for number of reasons. Like many of its kind, the region of South Asia and adjourning region have always experience both Cold and hot wars. The regional powers have always allowed their national sentiment to over cloud their relations, rather than optimally exploit areas that can herald progress and development on mutually acceptable terms. Since the dawn of the 1950s, the world came to know and understand the worth of regionalism, not just as an integral essence of world system, but the benefits embedded in such thinking. The transition from a fragmented to an integrated nationalism reshaped the political landscape of Europe. The creation of a common identity and regionalization practice by the Europeans have shown the rest of the world that enmity and animosity are only relevant in projecting the realist understanding of international politics.

Gilgit Baltistan is holding the privilege of changing the region if adequate attention can be paid to the importance of this region beyond the sentiment of politics. The region geographically is the juncture of regional powers; such juncture can be a platform for deeper cooperation based on shared historical relations.

Since ancient times, the mobility of people and trade was an important aspect of civilizations. This is also true for the modern period, whereby nations try to initiate and establish economic corridors.

The joint effort of Pakistan and China over the Karakorum corridor is a testimony to this reality. Obviously, the Wakhan and proposed Karakoram rail corridor will be complementing the Karakorum corridor. All these corridors will be instrumental in bolstering regional integration if well planned and adequately managed onto implementation level. As it is rightly known, that Gilgit Baltistan is famous as the juncture, where three empires met, known as the axis of Asia. The implication of this strategic location lies in connectivity and transit. In addition to the numerous historical passes adjourning to Gilgit Baltistan, it can be modern day effective and integrated economic gateway, facilitating the mobility of trade and people from Afghanistan to central Asia, India to central Asia, Iran–Pakistan-China gas pipeline via Himalaya ranges (Gilgit Baltistan) and China to Arabia peninsula. In

addition, this will also bring the landlocked region of CARs closer through the connectivity that Gilgit Baltistan provides. Of significant important, is the fact that GB will be reverberating and revamping the traditional silk route spanning from Myanmar, Bhutan and Nepal, all gaining accessing to CARs via the gateway of GB. All of these are indication to the strategic importance of Pakistan which evidently rest of Gilgit Baltistan on one hand and on the other process of regional integration. Lastly, with the growing strength of China-Pakistan relations and the formation of an economic corridor, popularly known as China-Pakistan Economic Corridor, the two countries have shown the possibility of regionalism on mutually acceptable terms.

Suggested Citation

Hussain, A., Ullah, K. (2023). Geo-Politico Economic Significance of Gilgit Baltistan: From Antiquity to CPEC. In *Silk Route Revisited: Essays and Perspectives on the China-Pakistan Economic Corridor and Beyond* (pp.125-142). CSC-KIU.

References

Alam, K. M., Li, X., & Baig, S. (2019). Impact of transport cost and travel time on trade under China-Pakistan economic corridor (CPEC). *Journal of Advanced Transportation, 2019*.

Ali, S. A., Haider, J., Ali, M., Ali, S. I., & Ming, X. (2017). Emerging tourism between Pakistan and China: tourism opportunities via China-Pakistan economic corridor. *International Business Research, 10*(8), 204.

Allchin, B., & Allchin, R. (1982). *The rise of civilization in India and Pakistan*: Cambridge University Press.

Baig, S., Qasim, M., Xuemei, L., & Alam, K. M. (2020). Is the China-Pakistan economic corridor an opportunity or a threat for small and micro-entrepreneurs? Empirical evidence from Northern Pakistan. *Sustainability, 12*(5), 1727.

Baig, S., & Zehra, S. (2020). China-Pakistan economic corridor, governance, and tourism nexus: evidence from Gilgit-Baltistan, Pakistan. *Current Issues in Tourism, 23*(23), 2884-2889.

Bhattacharjee, D. (2019). Exploitation of Water and Mineral Resources of Gilgit-Baltistan. *Indian Council of World Affairs*.

Chaudhry, M. N., Hussain, S., Baloch, I. H., & Dawood, H. (2021). Impact of 8th October 2005 Earthquake Associated with Kashmir Boundary Thrust (KBT), Pakistan.

Chellaney, B. (2011). *Water: Asia's new battleground*: Georgetown University Press.

Fazzini, I. (2018). The China Pakistan Economic Corridor: a cooperation through Karakorum Highway.

Feyyaz, M. (2019). Geopolitics, statehood, violence and space compression in Gilgit-Baltistan. *South Asian History and Culture, 10*(1), 28-45.

Flowerday, J. M. (1998). *A construction of cultural history from visual records for the Burusho of Hunza, Pakistan*: The University of North Carolina at Chapel Hill.

Ghanem, O., Xuemei, L., Alam, K. M., & Baig, S. (2021). The effectiveness of freight costs on trade potentials between China and European Union, Middle East, North African countries under China-Pakistan Corridor. *International Journal of Shipping and Transport Logistics, 13*(3-4), 327-359.

Hewitt, K. (2014). *Glaciers of the Karakoram Himalaya*: Springer.

Hussain, E. (2019). Will change in government affect China–Pakistan economic corridor? The BRI, CPEC and the Khan Government: An analysis. *Chinese Journal of International Review, 1*(02), 1950004.

Hussain, Z. (2018). *Geo-Strategic Significance of Gilgit Baltistan: Political, Economic and Security Interests of Pakistan, India and China (1947-2013).* University of the Punjab, Lahore,

Lavoy, P. R., & Lavoy, P. R. (2009). *Asymmetric warfare in South Asia: the causes and consequences of the Kargil Conflict*: Cambridge University Press.

Le Guin, U. K. (2017). *Dancing at the edge of the world: Thoughts on words, women, places*: Open Road+ Grove/Atlantic.

Naz, A. (2018). China-pakistan Relations and Regional Development in the Context of China-Pakistan Economic Corridor (CPEC). *Journal of Business and Social Review in Emerging Economies, 4*(2), 163-172.

Pomeroy, R., & Douvere, F. (2008). The engagement of stakeholders in the marine spatial planning process. *Marine Policy, 32*(5), 816-822.

Sering, S. H. (2012). *Expansion of the Karakoram corridor: implications and prospects*: Institute for Defence Studies & Analyses.

Shahzad, S. M. (2019). Gwadar Port Growing Beyond Economic Glory. *Int. J. of Multidisciplinary and Current research, 7*(4), 839-846.

10

China-Pakistan Economic Corridor (CPEC): Economic and Strategic Implications for Pakistan

Muhammad Ismail
https://orcid.org/0000-0002-8071-2934
Department of Politics and International Studies, Karakoram International University

Introduction

Pakistan and China enjoy a strong and multifaceted strategic partnership. The bilateral relationship between the two countries is based on mutual respect, trust, and support, which has grown over the years. The two countries have cooperated in several areas of mutual interest, including defense, trade, and energy. The Treaty of Friendship, Cooperation, and Mutual Assistance, signed in 1956, remains the cornerstone of Pakistan-China relations. This treaty laid the foundation for strategic cooperation between the two countries, and both countries have remained committed to this friendship ever since.

In 1963, Pakistan and China signed an agreement to resolve the border alignment between Pakistan's Gilgit-Baltistan region and China's Xinjiang province. This agreement helped to resolve a longstanding dispute between the two countries and paved the way for closer cooperation. China has also been a significant supporter of Pakistan's infrastructure development, particularly in the 1970s when it assisted in building strategic infrastructure such as the Karakoram Highway, which connects Pakistan with China. This cooperation in infrastructure development has strengthened bilateral relations and contributed to regional connectivity and economic development.

Pakistan has also played a crucial role in China's diplomatic outreach to the world. Pakistan supported China's efforts to end its isolation as a communist country. It played a critical role in facilitating the historic visit of US President Richard Nixon to Beijing in 1972, which marked a turning point in US-China relations. Overall, the friendship between Pakistan and China is strong and enduring, and the two countries continue to work together closely on a range of regional and global issues.

Pakistan's geographical location is strategically significant, as it is a gateway to Central Asia and the Middle East. Pakistan shares borders with several important countries, including Afghanistan, Iran, India, China, and the Arabian Sea. This location provides opportunities for Pakistan to serve as a hub for regional trade and connectivity.

Pakistan's location is particularly important for landlocked Central Asian countries, such as Afghanistan, Kyrgyzstan, Kazakhstan, Tajikistan, Turkmenistan,

and Uzbekistan (G. Ali, 2017). These countries see Pakistan as a gateway to the Arabian Sea and beyond. Pakistan is working on infrastructure projects, such as the China-Pakistan Economic Corridor (CPEC), to enhance connectivity and trade between Pakistan and Central Asia.

Moreover, Pakistan is a member of the South Asian Association for Regional Cooperation (SAARC) and is the second-largest economy in the region after India. As a member of SAARC, Pakistan is part of a regional economic bloc that seeks to promote economic cooperation and integration among member countries.

Pakistan also has access to the Arabian Sea, which provides an important sea route for international trade. The deep-sea port of Gwadar, developed under the CPEC, has the potential to become a central hub for trade between Pakistan, China, and other countries in the region.

Overall, Pakistan's strategic location, particularly its proximity to Central Asia and the Middle East, makes it an important regional trade and connectivity player. The country has the potential to become a hub for trade and investment, which could bring significant economic benefits to Pakistan and the region.

Pakistan provides the shortest route to China for trade with the Middle East and European countries (Alam et al., 2019). This will aid in the reduction of freight costs and turnaround times. This is a significant investment that China has made in any foreign country but for its benefit because the old trading route from China to Europe and the Middle East is costly, time-consuming, and dangerous. Pakistan is a resource-rich country that has been self-governing for over 74 years (Ghanem et al., 2021). The country has gone through many ups and downs and has never given up in the face of hardship (A. R. Malik, 2018). Pakistan has experienced of several problems since independence, including partition, refugees, terrorism, and economic difficulties, one of the most significant obstacles was the country's poor economy, which it worked diligently to address (Baig & Zehra, 2020).

China and Pakistan have had a stable relationship since the early Chinese revolutions despite their differing socio-political systems, cultures, and philosophies. Although much has changed between the two nations, the area, and the globe over time, their friendship has remained unchanged (Lavoy, 2005). As one of Pakistan's closest friends, Beijing has unveiled one of the world's largest funding programs, which would fund infrastructure and power projects in Pakistan, assisting the nation in overcoming its power shortage issue and satisfying its infrastructure need.

Pakistan has maintained an especially close relationship with China since the country's inception. Given the ideological gap between the two countries and the fact that they have occasionally belonged to opposing military blocs, the China-Pakistan relationship has sparked attention, and various explanations have been proposed for this seemingly unusual pairing. According to Indian analysts,

this alliance is built on opportunism, expediency, and even collaboration geared primarily against India, because other than a shared hate for India, Pakistan, and China have little else in common. According to the history of the relationship, the two countries eventually developed a friendship based on similar interests that overcame ideological differences. India, without a doubt, figured prominently in both parties' considerations. More significant geostrategic issues, on the other hand, impacted both Pakistan's and China's actions. In 1949, the communists took power in China. Pakistan was one of the first countries to acknowledge the new administration. Pakistan and many countries anticipated that the new Communist administration would take China's seat at the United Nations (Hongyi, 2009). It would not have been in Pakistan's interest to alienate the new Chinese leadership by postponing recognition while the Kashmir conflict was before the UN Security Council.

Naseer & Ahmed (2021) had the chance to develop bilateral connections during the Bandung Conference. Pakistan was not anti-China, had no fear of China committing aggression, and would not participate if the US took aggressive action under SEATO (S. R. Hussain, 2014). Pakistan would not be engaged, and through these explanations, we have reached a mutual agreement with China. In December 1956, Prime Minister Zhou visited Pakistan, which resulted in a deepening of diplomatic ties. The prime ministers agreed in the joint communiqué that differences of opinion on various issues should not hinder their nations from deepening their bonds of friendship. Pakistan became an outspoken supporter of China's admittance to the UN and other international organizations. In the following years, Pakistan remained a staunch backer of China in the United Nations. Albania, China's only European ally at the time was often left alone. In China, this had an everlasting impact. Pakistan became recognized as a one-of-a-kind friend who had stood with China in good and bad times. Pakistan's strategic relationship with the United States was severely strained in the early 1960s due to the country's growing affinity with China.

Pakistan's strong support for China has resulted in tremendous Chinese assistance for Pakistan during the 1965 war that captured Pakistanis' hearts. This goodwill has withstood the political upheavals in both nations over the last three decades. Pakistani officials realized that the nation needed to maintain a positive relationship despite this Chinese backing. The corridor connects China's western Uighur Autonomous Region of Xinjiang to Pakistan's Baluchistan province's Arabian Sea coast through energy and infrastructure projects. The project started in mid-2013 and was launched in April 2015. CPEC is generally characterized as a $46 billion package of Chinese funding and investments in Pakistan; however, Pakistani officials believe the sum to have reached $62 billion by April 2017 (Habib, Muhammadi, & Jiang, 2017).

President Xi Jinping of China visited Islamabad in April 2015 to open the China-Pakistan Economic Corridor (CPEC), a $46 billion investment in Pakistan's energy and transportation sectors. The China-Pakistan-Eurasian Corridor (CPEC)

is part of China's One Belt, One Road (OBOR) program, which aims to improve regional connectivity between Pakistan, China, and Eurasia. President Xi and Prime Minister Nawaz Sharif signed 51 agreements on various projects. Both nations continue regular communication, giving a new dimension to their friendship. China-Pakistan ties are a good example of shared perspectives on critical problems and trustworthy friendship founded on values (G. Ali, 2017). Pakistan is the first Muslim country to recognize the People's Republic of China the third non-communist country to do so. On May 21, 1951, Pakistan and China formalized their relationship. In 1956, Pakistan Prime Minister Husain Shaheed Suhrawardy and Chinese Premier Zhou Enlai signed the Treaty of Friendship between China and Pakistan in Beijing. Despite Pakistan's anti-communist rhetoric and greater collaboration with the US, as well as difficulties in Sino-US relations, relations remained amicable and stable.

Introduction of CPEC

China and Pakistan have agreed to build the China-Pakistan Economic Corridor (CPEC), which will connect China's Kashgar and Pakistan's Gwadar port through a network of roads, railway tracks, electricity, pipelines, and fiber optics. The growth of CPEC is exceptionally significant to both Chinese and Pakistani leaders (R. Ahmad & Mi, 2017). During his official visit to Pakistan in May 2013, Chinese Premier Li Keqiang proposed the mega CPEC plan.

During President Xi Jinping's visit to Pakistan in April 2015, both leaders Xi and Nawaz Sharif agreed to promote a 1+ patterns of economic cooperation, with the CPEC playing a central role and four main areas of cooperation, including the Gwadar port, energy market, transportation, and industrial cooperation, to achieve win-win outcomes and common growth. On both sides, the two leaders have persevered on the principle of scientific preparation; the respective corridor is being established as part of both nations' political and economic partnerships, 3 countries have agreed to build an economic corridor between China's Kashgar and Gilgit-Baltistan. CPEC has been included in Beijing's fifteenth Five-Year Plan. The Corridor is a component of China's Belt and Road Initiative (BRI) (Husain, 2018). These projects would bring the ancient silk route back to life, spanning Asian countries, Europe, and Africa, with a combined population of over three billion people. It includes several projects, including the Silk Road of the Twenty-First Century, the Central Asian Silk Road, and Bangladesh, China, India, and Myanmar (BCIM) route, it is a network of infrastructure projects currently under construction in Pakistan, with an initial investment of $46 billion that later raised to $62 billion in 2017.

The People's Republic of China will go to become an economic power along with the United States soon. Its foreign policy is based not on tanks and missiles, but nowadays China focuses on the global economy and trade to increase imports and enhance trade with the outside world. The Corridor's focus would not be limited but should be enlarged to include commerce, bilateral investments, and four free

trade agreements, financial and military cooperation. The China-Pakistan economic corridor (CPEC) is a great development for the region. It provides a better way for the development of economic and strategic transmission in Pakistan. The mega project of the corridor was started in March 2013, when China took charge of Gwadar Port, which had previously been managed by the Singapore port authority. Later, in May 2013, the Chinese premier visited Pakistan and formally suggested the corridor's creation. The two parties signed over a dozen deals. During Prime Minister's Visited China in November 2014, 1 the two countries signed an accord to build a 3000-kilometer road and rail route connecting Kashgar and Gwadar.

The Idea of the Economic Corridor

During the 2000s, when the first phase of the Gwadar port was being built, the concept of an economic corridor emerged. General (R) Pervez Musharraf, Pakistan's former military dictator, has indicated that Pakistan might act as a medium for China on numerous occasions. During his visit to China on February 26, 2006, he suggested transit facilities that would provide the country with access to electricity. The first step toward CPEC implementation was in March 2013, when China took administrative charge of Gwadar Port. Over the next several years, the project's shape became clearer, especially during high-level visits between the two countries. When the Chinese premier paid a state visit to Pakistan in May 2013, he formally suggested the corridor's establishment. Pakistani President Mamnon Husain visited China in February 2014 to discuss proposals for Economic Corridor. After two months, Prime Minister Nawaz Sharif met with Chinese Premier Li Keqiang to discuss plans, which resulted in a full-scale project being conceived during Sharif's tenure; the Chinese government announced in November 2014 that Chinese firms will find 45.6$ as part of CPEC in energy and infrastructure project in Pakistan (M. Hussain & Jamali, 2019). The two countries agreed to build a 2,000-kilometer road and rail connection linking to the Lahore-Karachi highway, as well as a $44 million contract to install a fiber cable across their border.

The Corridor aims to provide a direct link between Central Asian and Middle Eastern countries, to promote long-term growth. The corridor is a mutually beneficial adventure, with benefits for both states. Both can expand their exports by land and sea due to the CPEC. The CPEC will serve as political, economic, and Strategic strength for both countries. The economic corridor will cover 3000 kilometers from Gwadar to Kashgar. The overall construction costs are 62$ billion and are expected to be completed by 2030. This mage project includes trade routes, economic zone, and energy projects which will build in different parts of Pakistan and China, 6 it aims to develop in Pakistan and control energy cries by construction of dams and electric power plants. It will also employ the people of Pakistan (M. Hussain & Jamali, 2019). Gwadar port will become the international market for exports and imports and become a tourist point after the completion of

CPEC (Baig et al., 2020). China has continued to invest in Pakistan's infrastructure, including the building of Gwadar Port and the Makran coastal highway in Baluchistan, the Karakorum highway in Gilgit-Baltistan, and several other roads and power plants across the country.

Announcement of CPEC

On April 20, 2015, Chinese President Xi Jinping and Pakistan Prime Minister Nawaz Sharif signed 51 agreements and memorandums of understanding worth $46 billion, significantly boosting the corridor initiative. CPEC aims to modernize Pakistan's road system as well as change the country's economy. Overland routes from Pakistan's deep-sea ports of Gwadar and Karachi to China's Xinjiang Province and beyond will be linked by a rail, air, and energy transportation grid, 12 the economic relationship between China and Pakistan is not solely based on highways or roads; there is also a proposal to connect Gwadar and Kashgar through a railway network. The rail network serves as a foundation for the country's economy. The route from Gwadar to Khunjerab is 3000 kilometers long. The length covers mountainous, rolling, and flat terrain. 2 to 6 lanes have been suggested for the CPEC, with each lane being 3.65 meters wide. The China-Pakistan Economic Corridor (CPEC) route is designed to travel at speeds ranging from 70 to 120 kilometers per hour (Aqeel, 2016).

Economic Implications for Pakistan

The Islamic Republic of Pakistan faces many problems nowadays due to its economic and strategic challenges; this situation demanded a plan to boost its economic power. The corridor will help fully to improve economic and security issues. Gwadar Port will become the primary center for the trade and economy of Pakistan (Bürcher, 2017). The corridor will develop the backward areas of Baluchistan and the Punjab region strengthen economic and trade relations between the two friendly nations. Through the CPEC, China, and Pakistan built the 3000-kilometer land road that will link Gwadar port direct connecting with the Kashgar Dry Port and linking with the shanghai seaport with 5200 KM that route China used to export and import for his goods. That`s why it invests a considerable amount of money because it's a shorter and safe way, the corridor also helps to control the energy crises of Pakistan because both countries invested massive amount in this project.

The immediate project, transportations infrastructure, highways, and energy problems are the critical implication as a short term and education, health, agriculture, industrial, optical fiber, tourism, energy project, energy project, energy sector, road, and railways track Gwadar project, information technology, minerals and cultural. The following are the main points that are focused on the economic corridor's growth of Pakistan's economy (Rizvi, 2016).

- Economic corridors help Pakistan's ailing economy by allowing it to export goods.
- The corridor opens new industry, trading opportunities, and roads.
- The corridor enhances Pakistan's political and geopolitical importance all over the world.
- Pakistan and China will benefit from a new modern construction seaport as part of the CPEC.
- The China-Pakistan Economic Corridor is a trading link between land and sea.
- Because of stability, security, technological, and military growth, the corridor boosts the world's image and productivity.
- Because electricity serves as a foundation for nations, this corridor helps Pakistan to solve its energy crisis. It contained 11 thousand megawatts of electricity.
- Pakistan will exert leverage in South Asia, the Middle East, and Africa due to its economic and military ability.
- The Diamar Dam generates 45 000 kilowatts of energy for 442 billion Pakistani rupees.
- The corridor is scheduled to provide almost a thousand megawatts of electricity by the end of 2020. The roads, Gwadar building, optical fiber network, hydel, coal, and power projects will be completed by 2022, and thousands of MW of power will be delivered to the national grid.
- Hydropower, domestic coal, wind energy, oil and gas, 3 and solar power can all be fully produced and used to boost self-sufficiency and oil and gas exploration.
- In 2030, the CPEC Railways and the industrial zone will be completed.
- The project also includes the development of Gwadar City, the Gwadar international airport, and the Karachi Circular Railway.
- The establishment of a free zone in Gwadar the development of the Gwadar industrial sector and the Gwadar water supply project.
- Construction of a 300MW coal-fired power plant in Baluchistan's hub, the China-Pakistan Friendship Hospital in Gwadar and the Gwadar Port Vocational and Technical School.
- Breakwater and dredging projects for the Gwadar port and a social welfare project in Gwadar.

» The New construction of Gwadar International Airport and Gwadar free zone captive power plant of 30 MW, Gwadar smart port city master plan, East Bay expressway, Gwadar Port and free zone, Gwadar Hospital.

» Construction of the Gwadar port and the Makran Coastal Highway, as well as the modernization of the Karakorum highway and road upgrades in all Pakistani towns.

» The motorways connect Havelian to Islamabad, Sukkur, Multan, and Ratto Dero from Gwadar. Construction of a six-lane highway between Karachi and Lahore.

The corridor's first plan, worth 44 million dollars, 4 is a cross-border optical fiber cable through Khunjerab pass to Rawalpindi is linked by a cable. These projects span approximately 820 kilometers, including civil work on nine sites, equipment construction and commissioning in the equipment space, and microwave link backup. According to the minutes of cooperation committee, held on 27 August 2013, at Islamabad – Pakistan proposed the Railway links for the Economic corridor established in future.

I.	Havelian- Khunjerab Pass	682 km
II.	Gwadar – Basima	623 km
III.	Basima-Jacobabad	425 km
IV.	Jacobabad – Havelian	959 km

» The China-Pakistan cross-border optical fiber cable project, worth USD 44 million, is a prioritized/early harvest project within the China-Pakistan Economic Corridor (CPEC.

» Locals have gained employment because of this initiative. At its busiest, the construction site is visited by 580 people each day.

» Once finished, the project will provide the groundwork for the two nations' digital information superhighway and enhance the e-commerce environment, among other things.

According to the minutes of the 2nd meeting of the joint energy working Group Beijing, 7 August 2014, "The priority is given to the power project with speedy construction period and quick benefits; the total of 26 different energy projects under construction in different areas of Pakistan which estimated produces 20 thousand MW of electricity, these energy projects based on the hydropower, coal, wind, and solar power. The Economic Corridor may also have effect on the social life of the people of Pakistan by improving living conditions, providing job opportunities, promoting people-to-people interaction, and promoting heritage and culture among them which will increase their income (S. Saleem, 2019).

Strategic Implications for Pakistan

Pakistan is strategically important in Asia due to its location. It shares borders with China (523 kilometers), India (2,912 kilometers), Afghanistan (2200 kilometers), Iran (909 kilometers), and the Arabian Sea (1,046 kilometers). Pakistan is situated at the crossroads of three important regions of the world, all filled with oil and gas deposits. The countries of West, South, and Central Asia, Central Asia, and the Middle East are the world's most important oil and gas producers. There for the construction of a road and railway network through the economic corridor will increase the importance of Pakistan. Pakistan obtained a critical strategic location because it is situated at the crossroad of South Asia, the Middle East, Central Asia, and Africa.

The implication of the CPEC will be an increase in security cooperation between Pakistan and China, which is the essential aspect of this massive project in terms of ensuring the security of both countries in the battle against terrorism, extremism, and separatism. India is opposed to the mage project and is causing obstacles in many ways. India opposes peace and prosperity in Pakistan and Beijing's economic dominance in the area. Imported commodities and tranquility are two elements that contribute to stability in the corridor. Alternatively, the strategic importance of an Arabian Sea for both nations needed a mutual security system because the US presence in the region creates many threats due to strong influence and security relations with the Gulf States (M. Hussain & Jamali, 2019). To complete the project, 7 all nations must politically approach the concerned regional player and rationally address the risks to the project. CPEC will assist China in countering US influence in Asia, and China has gained strength in the Middle East because of this initiative and the assistance of Pakistan.

The strategic importance of maintaining the CPEC to unsteady political government, poor administrative and institutional performances, and terrorism is a big challenge for both nations. If all hurdles remove then Pakistan will become the hub of the economy in the area, and the United States, India, and Israel can straighten the barrier in the process posing a challenge to China and Pakistan. In Pakistan, two significant provinces, Khyber Pakhtunkhwa, and Baluchistan, are involved in various conflicts.

Baluchistan is the focal point of the corridor since Gwadar Port is located there. Because of India's presence, there is political and military unrest. The Baluchistan area is also significant due to its proximity to Iran and Afghanistan (Zaman-Shah, 2016). Due to the presence of the American army in Afghanistan and Iran and India's strength, there is unrest in both areas. India used its soil to increase terrorism in Baluchistan to damage the integrity of Pakistan and, on the other hand create insecurity for the project.

They are upset by the Pakistani government's inequitable resource allocation and merit-based system. There is of several other conflicts, including the Baloch, the

Taliban, and India's most important influence. Chinese residents and engineers are often kidnapped and murdered. As a result, 8 a big number of militants are creating an environment that is frightened of foreign businessmen. It major has become a significant difficulty for both Pakistan and China to deal with the icy conduct of the Baloch people, and neither country should participate in a large-scale economic initiative. The other regional insecurity problem that both nations face is Gilgit-Baltistan, the CPEC's main entry point. The disputed Gilgit region has created hurdles to the corridor, and India is playing a vital role in creating conflict in the region; India claiming GB is their territory is refused by Pakistan, also creating internal insurgency, and kidnapping, after 1988, Gilgit-Baltistan is facing a sectarian conflict between Shia and Sunni as well which is still there and creating issues for corridor. The Indians are still sabotaging the corridor by using nationalists (Haider, 2016). The Gilgit-Baltistan Nationalist Party (BNF) demands that Pakistan grant these areas fundamental rights, but the Pakistani government claims that this is a disputed area (Mushtaq & Shad, 2022).

The issue of the undefined status of Gilgit-Baltistan could pose a challenge to the completion of the China-Pakistan Economic Corridor (CPEC) project. The people of Gilgit-Baltistan are concerned about their rights and are demanding clarity on their status and constitutional rights (Shafique & Iftikhar, 2017). Additionally, there are several other challenges that could potentially affect the CPEC project, including Indian influence, nationalist movements, unemployment, and security concerns in the region.

The CPEC project also faces security challenges in the Khyber Pakhtunkhwa (KPK) province, which has been the most violent region in Pakistan in the last ten years due to insurgency and extremism (R. Ahmad, Mi, & Fernald, 2020). This situation could threaten the smooth implementation of the CPEC project, as security is essential for the successful completion of the project.

Furthermore, there is a conflict between Punjab and KPK provinces over the distribution of benefits from the CPEC project, which could lead to further complications and delays (Mahmood, Sabir, & Ali, 2020). The lack of an industrial zone for the CPEC is also a concern, as it could limit the potential benefits of the project for the local population.

However, the Pakistani government is working to address these challenges and ensure the successful completion of the CPEC project. The government has taken steps to improve security in the region, and efforts are underway to resolve the issues related to the status of Gilgit-Baltistan and the distribution of benefits from the project (Abid & Ashfaq, 2015). Additionally, the government is working to create an industrial zone for the CPEC to promote economic development and create job opportunities in the region.

The conflict between Khyber Pakhtunkhwa and Punjab over the CPEC route has created a major issue between them, with KPK facing the challenge of insurgency

and extremism, making it the most dangerous place in the country(E. Hussain, 2019a).The FATA region, which has become a hub of Tehrik-e-Taliban Pakistan and home for Afghan insurgent groups, poses a huge security challenge for the future of CPEC, and both Pakistan and China are dealing with this security issue (Ibrar, Mi, Rafiq, & Ali, 2019).The lack of political and military coordination between provinces is also harming the CPEC initiative, and stability must be prioritized for Pakistan's long-term success (H. U. Khan, 2019)

Conclusion

The relationship between Pakistan and China is built on a shared history and destiny that spans thousands of years. Diplomatic ties have strengthened this bond over the last seven decades. However, issues such as terrorism and religious extremism must be seriously addressed to implement the China-Pakistan Economic Corridor (CPEC) successfully. The CPEC is one of Pakistan's most important economic and strategic interests and has garnered worldwide attention. The current situations in Iran and Afghanistan are also critical, especially to the United States. Pakistan can be essential in mediating negotiations between the Taliban and the US government. If these difficulties are not handled through peaceful dialogue, the CPEC project could be in danger (Siddiqui, 2019). As an oil-producing nation and rival of US interests in the region, Iran has also played a significant role. Pakistan has emphasized peaceful dialogues between Iran and the US as any war between the two countries would harm the project. The interior ministry provides complete security to 7,178 Chinese workers who work on 207 projects in Pakistan, with 9,841 security personnel deployed. The Pakistan Army supervises security measures, including civil armed forces, local police forces, and private security companies.

The relationship between China and Pakistan is founded on mutual trust, economic and political cooperation, and a shared destiny that promises growth and development over the past 72 years. Additionally, the two nations have established robust diplomatic, commercial, and strategic ties. The China-Pakistan Economic Corridor (CPEC) is a substantial project to enhance economic growth and cooperation between the two countries. The bilateral relations between China and Pakistan include trade, security, maritime cooperation, technological industry prospects and artificial intelligence, culture and tourism, and post-Covid-19 cooperation. Islamabad and Beijing are actively promoting a better understanding of Pakistan-China relations, establishing links with Chinese think tanks, and encouraging people-to-people interaction between the two nations (Weidong, 2017). The friendship between China and Pakistan is profound, exemplified by the first treaty of friendship signed in 1956 between the Pakistani Prime Minister and the Chinese Premier in Beijing. Since then, economic and trade relations between the two nations have expanded at a rapid rate, and CPEC has become a free trade zone.

As a result, the China-Pakistan Economic Corridor (CPEC) is a once-in-a-life-

time possibility for Pakistan, China, Central Asian nations, and Middle Eastern countries; no group can afford to lose it. This initiative can potentially improve Pakistan's commercial, strategic, and national integration, but it must equally share the rights of all provinces, including Kashmir and Gilgit-Baltistan. Kashmir and Gilgit-Baltistan are two of the most troubled areas in Pakistan.

This corridor will benefit Pakistan's provinces and regions, transforming Pakistan into a regional trade and investment powerhouse. It will allow China to build a more efficient and cost-effective commerce and investment route between Asia's south, central, and west coasts, the Middle East and Africa. This corridor will be remembered as a symbol of peace and prosperity.

China's rise as a global economic power is expected to put it on par with the United States soon. Rather than relying on military might, China's foreign policy is centered on trade and economy to increase its exports and enhance trade relations with the world. The 70-year long friendship between China and other nations, such as Pakistan, is evidence of a desire to foster and strengthen relationships in the future. Both countries aim to sustain their partnership, envisioning it as a bright moon that illuminates the darkness.

Suggested Citation

Ismail, M. (2023). China-Pakistan Economic Corridor (CPEC): Economic and Strategic Implications for Pakistan. In *Silk Route Revisited: Essays and Perspectives on the China-Pakistan Economic Corridor and Beyond* (pp.143-156). CSC-KIU.

References

Abid, M., & Ashfaq, A. (2015). CPEC: Challenges and opportunities for Pakistan. *Journal of Pakistan Vision, 16*(2), 142-169.

Ahmad, R., & Mi, H. (2017). Arts and social sciences journal. *Arts and Social Sciences Journal, 8*(2).

Ahmad, R., Mi, H., & Fernald, L. W. (2020). Revisiting the potential security threats linked with the China–Pakistan Economic Corridor (CPEC). *Journal of the International council for small business, 1*(1), 64-80.

Alam, K. M., Li, X., & Baig, S. (2019). Impact of transport cost and travel time on trade under China-Pakistan economic corridor (CPEC). *Journal of Advanced Transportation, 2019*.

Ali, G. (2017). *China-Pakistan relations: A historical analysis*: Oxford University Press Karachi.

Baig, S., Qasim, M., Xuemei, L., & Alam, K. M. (2020). Is the China-Pakistan economic corridor an opportunity or a threat for small and micro-entrepreneurs? Empirical evidence from Northern Pakistan. *Sustainability, 12*(5), 1727.

Baig, S., & Zehra, S. (2020). China-Pakistan economic corridor, governance, and tourism nexus: evidence from Gilgit-Baltistan, Pakistan. *Current Issues in Tourism, 23*(23), 2884-2889.

Bürcher, S. (2017). Regional engagement of locally anchored firms and its influence on socio-economic development in two peripheral regions over time. *Entrepreneurship & Regional Development, 29*(7-8), 692-714.

Ghanem, O., Xuemei, L., Alam, K. M., & Baig, S. (2021). The effectiveness of freight costs on trade potentials between China and European Union, Middle East, North African countries under China-Pakistan Corridor. *International Journal of Shipping and Transport Logistics, 13*(3-4), 327-359.

Habib, A., Muhammadi, A. H., & Jiang, H. (2017). Political connections and related party transactions: Evidence from Indonesia. *The International Journal of Accounting, 52*(1), 45-63.

Haider, M. (2016). RAW runs Special Cell to sabotage CPEC, says Secretary Defence. *Dawn. https://www.dawn. com/news/1251860*.

Hongyi, N. (2009). Explaining Chinese solutions to territorial disputes with neighbour states. *Chinese Journal of International Politics, 2*(4), 487-523.

Husain, I. (2018). CPEC & Pakistani economy: an appraisal.

Hussain, E. (2019). CPEC: Governance and security challenges—Implications for the Belt and Road Initiative. *Chinese Political Science Review, 4*(1), 135-147.

Hussain, M., & Jamali, A. B. (2019). Geo-political dynamics of the China–Pakistan economic corridor: a new great game in South Asia. *Chinese Political Science Review, 4*(3), 303-326.

Hussain, S. R. (2014). Sino-Pakistan ties: Trust, cooperation and consolidation. *Journal of South Asian and Middle Eastern Studies, 37*(4), 1-31.

Ibrar, M., Mi, J., Rafiq, M., & Ali, L. (2019). China-Pakistan economic corridor: Ensuring Pakistan's economic benefits.

Khan, H. U. (2019). Regional security threats to CPEC: a strategic overview. *Journal of the Research Society of Pakistan, 56*(1), 181.

Lavoy, P. R. (2005). Pakistan's foreign relations. *South Asia in world politics*, 49-70.

Mahmood, S., Sabir, M., & Ali, G. (2020). Infrastructure projects and sustainable development: Discovering the stakeholders' perception in the case of the China–Pakistan Economic Corridor. *PloS one, 15*(8), e0237385.

Malik, A. R. (2018). The China–Pakistan Economic Corridor (CPEC): a game changer for Pakistan's economy. *China's Global Rebalancing and the New Silk Road*, 69-83.

Mushtaq, M. S., & Shad, M. R. (2022). Belt and Road Initiative in South Asia: Security Imperatives. *Strategic Studies, 42*(230).

Naseer, N., & Ahmed, A. (2021). From Strategic Partnership to Strategic Interdependence: The Pak-China Duo. *Pak. Journal of International Affairs, 4*(1).

Rizvi, H. (2016). The China-Pakistan Economic Corridor: Regional Cooperation and Socio-Economic Development. Vol. 34 and 35, Winter 2014 and Spring 2015, Numbers 4 and 1. Institute of Strategic Studies, Islamabad (ISSI). In.

Saleem, S. (2019). CPEC: A New Political, Economic & Strategic Game. *Lahore: Sagar Publisher, Urdu Bazar Lahore*.

Shafique, M., & Iftikhar, G. A. (2017). Regional Dynamics of China Pakistan Economic Corridor (CPEC): The Case of Gilgit Baltistan. *Journal of Historical Studies, 3*(2), 15-29.

Siddiqui, M. M. I. (2019). Security threats and challenges to pak china economic corridor/one belt of road. *Pakistan journal of international Affairs, 2*(2).

Weidong, S. (2017). Pakistan-China relations: CPEC and beyond. *Policy Perspectives: The Journal of the Institute of Policy Studies, 14*(2), 3-12.

ZamanShah, A. (2016). Geopolitical Significance of Balochistan: Interplay of Foreign Actors. *Strategic Studies Department of International Relations*.

11

The Motivation of Pakistani Students Studying Chinese Language in China

Ali Haqiqat
https://orcid.org/0009-0008-5288-9856
Beijing Language and Culture University, Beijing China

Khalid Mehmood Alam
https://orcid.org/0000-0003-3222-0895
China Study Centre, Karakoram International University, Gilgit-Baltistan, Pakistan

Introduction

It is vital to investigate what motivates people to learn a language like Chinese. Students of the Chinese language first relied significantly on the work of foreign experts to understand the reasons why international speakers learn the Chinese language. Then, at some point, they started thinking about motivation in a way that was distinctively Chinese.

Most of China's studies on the factors that motivate people to learn Chinese can be broken down into two stages: the first stage covers the years 1980 through the beginning of 1990, and the second stage covers the years 1990 to the current day.

In the first stage, researchers of Chinese studies primarily focus on reading and translating important foreign works, and they use real-world examples to illustrate the theoretical perspectives of other scholars from other countries. At this point, most Chinese academics feel that the incentive to study Chinese is solely a psychological behavior, and they have yet to investigate it from any other angle.

In the second phase, researchers began to see that motivation for learning Chinese is multifaceted and looked at it from several angles (psychology, cognition, social variables, and behavior. According to a review of the literature on learning motivation conducted by domestic researchers, two primary approaches stand out: theoretical composition analysis and example demonstration. Understanding the psychological underpinnings of language acquisition motivation Scholars have conducted and published a growing body of research on the connection between students' internal experiences and their drive to study. Still, most of the studies are broad in scope and need more specificity.

Through analyzing pertinent research on language learning motivation by foreign academics, Chinese researchers have furthered their theoretical research on learning motivation. studies on the mobility of language acquisition, although there are few Chinese research material and findings. People worldwide have started to pay more and more attention to the Chinese language in recent years due to

the growth of China's overall power. Chinese academics have changed their research focus from English to Chinese as a result. However, the research is mainly conducted from a macro viewpoint because the motivation for learning Chinese is still in its infancy, yet only some findings have been attained. The research subjects in this study are Pakistani students studying Chinese at Chinese colleges, and it examines language learning motivation from a micro viewpoint.

Objectives

Learning motivation, which is the primary force behind the learning process, significantly influences learning the Chinese language. To better understand how learning motivation affects Chinese language acquisition, this study investigates the motivation of Pakistani overseas students studying there to learn the language. The research's findings are put forward, and actions are taken to enhance the effectiveness of their Chinese learning.

By examining the motivation of Pakistani international students to learn Chinese, we can determine how to increase students' interest in learning the language and offer workable recommendations for college admissions, management, and instruction to help international students learn Chinese more effectively boosting teachers' motivation. As a result, the standard of education has increased.

This research specifically addresses the following issues:

1. What is the general state of Pakistani students' motivation to learn Chinese at Chinese universities?

2. What connection exists between Pakistani students' ambition to learn Chinese at Chinese colleges, their gender, and time spent studying the language?

3. What elements influence Pakistani students' enthusiasm to learn Chinese at Chinese colleges, and how does that motivation change over time?

4. What recommendations can this research provide for teaching Chinese?

Motivation for Chinese Language Learning

Motivating oneself to study Chinese is an important part of investigating motivation theory. Scholars in the United States often draw on the findings of studies conducted in other countries to explain the factors that motivate students to learn. Researchers commonly use questionnaire surveys, who then analyze the data from many perspectives to determine the causes and motivations at play. By analyzing the motivations and outcomes of their studies, we may summarize the contributions of domestic researchers.

Beginning in the 1990s, China's foreign language classrooms have shifted their

focus to more student-centric methods of instruction. As the focus of language education moves away from primarily teaching students from their own country, more and more people are interested in studying the psychological aspects that influence how Chinese students learn a foreign language. As a result, learning motivation research in Chinese language studies has expanded in scope, depth, and breadth as researchers have paid greater attention to the topic. Similarly, the number of studies conducted on the subject has grown, as has the number of published studies (Alam et al., 2019; Baig et al., 2020).

After more than 20 years of study, China has amassed a wealth of knowledge on what drives people to learn Chinese. A growing number of specialists and academics are delving into this topic, expanding the range and depth of study. Early research on what drives people to learn Chinese focused solely on social psychology. Still, as the field progressed, scientists began looking at learning motivation from cognitive psychology, educational psychology, and other fields. Due to a lack of funding, the study's primary focus is enhancing college students' enthusiasm to study English. The research results are unique since the research aims and procedures are similar.

Foreign Research on Motivation

In China, academics are looking at what drives people to learn Chinese and reading up on the most recent findings from other countries. For instance, scholar (Dai, 2000) translated Professor J. Arnold's book "Emotional Components in Language Learning" and explained the emotional factors and their meanings. Qin Xiaoqing (2002) analyzed data from studies conducted outside of China and elaborated on the impact of learning motivation from many theoretical vantage points, including cognitive psychology and behaviorism. (Austin & Shen, 2016) offered a thorough breakdown and categorization of the many aspects influencing students' desire to study Chinese, as well as insightful recommendations for educators. Many experts have summed up the history and evolution of the desire to learn Chinese in China and overseas. (Larsen-Freeman, 2006; Meng, Wang, & Zhang, 2005) analyzed and summed up the progress of learning motivation theory research in China during the previous four decades. Research on the factors that motivate students to study has been evolving rapidly since 1970, and (Yan, 2019) provided a comprehensive summary of these developments.

Validating Research on Major Foreign Motivation Theories

The domestic research verifies the foreign motivation theory by comparing it to the actual situation in China and then advancing its theoretical stance about Chinese language learning motivation. (Gu & Johnson, 1996) analyzed the impact of students' mental health, study habits, and surrounding environment on their language acquisition in a study of Chinese university students. Encouragement to learn has a far more significant impact. (Shi, 2000) categorized students learning motivation and analyzed how it affected their performance in the classroom.

According to research by (Sung, Chang, & Liu, 2016) on the language-learning settings of scientific and engineering students, motivation to study has a higher effect on language acquisition. The article "The Influence of Learning Motivation and Effort on Foreign Language Learning Performance" by (Scovel, 1978). The study concluded that intrinsic motivation for learning a language is a sort of psychological activity that has no bearing on the efficacy with which one acquires that language. The impact of friends, family, and classmates on language acquisition research. The survey data clearly show that people from diverse socioeconomic situations are motivated to learn a new language in quite different ways (F. Gao, 2011).

Reflections on the Construction of Domestic Motivation Theory

Foreign scientists have surpassed their domestic counterparts in terms of study breadth and depth in learning motivation theory. Chinese academics have started looking at theories of motivation for learning foreign languages that make sense, given China's unique circumstances and the country's sustained focus and effort in this area. (Schumann & Schumann, 1977) examined how learners' emotions affected their desire to study a new language. Then any other category, negative emotional elements affected students' ability to learn. (Y. Gao, Zhao, Cheng, & Zhou, 2003) surveyed in-state students to discover more about their desire to learn a foreign language, the different forms of motivation they experienced, and how motivation affected their language acquisition.

Analysis of Chinese Language Motivation of Pakistani Students in Chinese Universities

The Meaning of Learning Motivation and its Variable Analysis

What keeps a student engaged in learning is called "learning motivation," and it relates to why the learner is putting in the effort to learn. The theoretical underpinning of this study, the Intrinsic Structure of Language Learning Motivation, is grounded in the Social Education Theory (Dörnyei, 1994; Dörnyei & Németh, 2006; Gardner, 2001).

While the two theoretical frameworks share many similarities, their respective understandings of motivation and the interplay of the various elements that influence it are quite distinct. Learners' motivation is analyzed through the lens of the social education paradigm, which focuses on factors such as the classroom setting, students' perspectives on learning, their level of integration and instrumentality, and their internal state. (Dörnyei, 1994) underlying structure of language learning motivation theory builds on Gardner's original work in learning motivation. Their definition of intrusive motivation differs from Gardner's theory, but they both agree that it is crucial in determining the interest in learning a foreign language. Furthermore, they believe that the social climate will influence instrumental motivation since, with the continual changing of social ideology, the

practical value of language also changes proportionally, and these two motivations are not opposites but connected (Crookes & Schmidt, 1991).

In accordance with Gardner's social education theory (Dörnyei & Ushioda, 2009) idea of the internal structure of language learning motivation, this study proposes six factors to investigate Chinese learners' motivation to acquire the language. The six factors are integration, instrumental motivation, and social environment, learning experience, self-confidence, and learning effort. Motivations for learning Chinese may be broken down into three categories: integration, instrumental, and learning experience. Integration motivation encompasses a desire to fit in with the group, use the Chinese, and acquire a command of the language. instructor recommendation, a solid foundation in the language, etc.; social environment, or the impact of one's social circle on one's ability to learn, including the support of one's family, friends, and coworkers. It is the opinion of (Dörnyei, 1994) that one's sense of self-assurance An individual's strength may be defined as their "degree of confidence in one's performance in accomplishing objectives or completing tasks, generally tied to one's overall perception of one's capacity to deal with challenges, and related to a sequence of activities and learning information." According to the (Noels, Pon, & Clément, 1996), students' level of interest in learning Chinese and their level of comfort when using Chinese are indicator of their self-confidence. How much work a student has put into accomplishing a goal is a major factor in how much they've learned.

These six factors were chosen because of their potential to affect both social inclusion and extrinsic motivation. All six of these factors influence one another. Consider the characteristics and variables in Table 1 that may serve as sources of motivation.

Table 1: Motivational variables and relevant factors

Motivational variables	**Relevant factors**
Inclusive motivation	Integration tendency
	Attitudes towards Chinese language
	Desire to learn Chinese language
Instrumental motivation	The practical or utilitarian purpose for acquiring Chinese
Social atmosphere	The positive attitude of parents, friends, etc.
Learning experience	Language background
	Evaluation of Chinese Teachers
	Evaluation of Chinese language courses

Self-confidence	Interest in learning Chinese
	Anxiety when using Chinese
Study effort	Attitude to learning Chinese
	Motivational strength

Basic Information Statistics

The respondents of this research are all Pakistani students learning Chinese at Chinese institutions. In terms of data statistics, numerous dimensional characteristics of Pakistani pupils were explored. Among them, 97 Pakistani students were male, and 19 were female. The precise information of the responders is shown in Table 2:

Table 2: Basic Statistics of Chinese Language Pakistani international students

Gender			**Time to learn Chinese**			
	Male	Female	1-12 months	13-24 months	25-48 months	48 months and above
Quantity	97	19	2	18	74	23

General Overview of Motivational factors of Chinese Language Students

The results of the statistical analysis of each item are displayed in Table 3.

Table 3: Motivational factors of Chinese language students

Question	**Mean Value**
Chinese teachers' concern for us and communication with us have an impact on my study.	4.13
I like learning languages, and learning Chinese is an interesting thing for me.	4.12
I like Chinese very much. I want to learn Chinese because I want to communicate with them and meet more Chinese friends.	3.95
I study Chinese because I want to study other majors in China.	3.72
Chinese is becoming more and more important. Learning Chinese well can help me better understand the world's economy, culture and politics.	3.96
I like Chinese culture, so I study Chinese so that I can learn more about Chinese culture.	3.83

I want to live in China, so I study Chinese.	3.23
If I learn Chinese well, I can get promotion opportunities at work.	3.82
I think Chinese is an important communication tool, so it is very important to learn Chinese well.	3.91
I learn Chinese because of Chinese movies, songs, books and so on.	3.26
I study Chinese to get the HSK certificate.	2.89

These high-scoring elements show that the global prestige of the Chinese is increasing, and as China's overall strength grows, so do the country's economic growth prospects and the recognition that the Chinese have among young people worldwide. The more advanced your Chinese, the more prospects for growth and communication expansion you can take advantage of. Additionally, it has been shown that international students are drawn to study Chinese. The students are quite pleased with themselves for studying Chinese. In addition, it has been noted that Chinese professors play a crucial role in helping students from other countries learn Chinese. Like the Chinese enlightenment teachers of overseas students, instructors play a pivotal role in inspiring their pupils to learn. Few Pakistani students consider studying Chinese only acquiring acquire a credential.

Table 4 displays the average scores of six motivational factors (integration motivation, instrumental motivation, social milieu, learning experience, self-confidence, and learning effort) among Pakistani overseas students studying at Chinese institutions.

Table 4 Descriptive statistics of motivational variables

Motivational variables	**Average**	**Standard Deviation**
Inclusive Motivation	3.6929	0.7451
Instrumental Motivation	3.722	0.4189
Social Atmosphere	3.3063	0.3225
Learning Experience	3.5429	1.0809
Self-Confidence	3.3475	1.1253
Study Effort	3.1676	0.6965

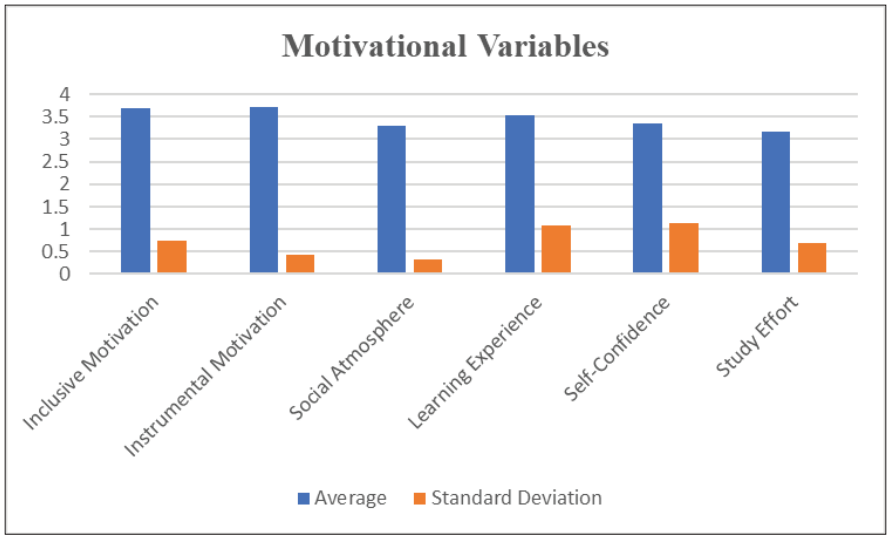


Figure 1: Descriptive statistics motivational variables

The findings for both instrumental and integrative motives are shown, respectively, in Table 4 and Figure 1. All the categories, except for "study effort," have scores that are lower than 3.3, although "social atmosphere," "learning experience," and "self-confidence" all have greater scores. This suggests that there is minimal difference between the various determinants of motivation and that the learning motivation of international students is still relatively robust in the early stages of the learning process. The results also show that international students are interested in learning Chinese because they hope to assimilate into Chinese society and experience the richness of Chinese culture. Learning Chinese will help them professionally and personally and increase their opportunities for communication. According to the statistical data of standard deviation, however, the standard deviation of self-confidence is the biggest, suggesting that in the beginning stages of learning Chinese, the polarization of international students' self-confidence is significant. Some kids have psychological issues, while others are overconfident. There is a small amount of variation in his social environment, which suggests that his loved ones' opinions of him positively impact his desire to study.

The Variable Relationship between Gender and Learning Motivation

In this study, gender is utilized to analyze how it affects students' desire to study. Table 5 displays the results of a comparison between male and female motivation. In this study, women were shown to have a somewhat greater motivation level than motivation of men.

There is statistical evidence that females are more curious about Chinese than guys. Since women's emotional thinking is more developed than men's, most

travel to China to study the language with a specific aim in mind. The women students will be tough on themselves in this assessment. Boys typically decide to study Chinese for pragmatic reasons, including personal growth and career advancement, with supportive encouragement from family and peers.

Table 5: Comparison of male and female motivation

Question	Motivational Level
I like Chinese very much. I want to learn Chinese because I want to communicate with them more and make more Chinese friends.	Higher Motivation in females
I like Chinese culture, so I study Chinese so that I can learn more about Chinese culture.	Higher Motivation in females
I want to live in China, so I study Chinese.	Higher Motivation in females
When I study Chinese, I want to continue to study other majors in China.	Higher Motivation in females
I like learning languages, learning Chinese is interesting to me.	Higher Motivation in females
Learning Chinese well can give me a sense of accomplishment.	Higher Motivation in females
I have not missed class.	Higher Motivation in females
I learn Chinese because I like Chinese movies, songs, books, etc.	Higher Motivation in males
If I learn Chinese well, I can get promotion opportunities at work.	Higher Motivation in males
I study Chinese for the HSK certificate.	Higher Motivation in males
Chinese is becoming more and more important. Learning Chinese well can help me better understand the world's economy, politics and culture.	Higher Motivation in males
I learn Chinese because of the requirements of my parents.	Higher Motivation in males
Chinese teachers' concern for us and communication with us have an impact on my study.	Higher Motivation in males

The combined descriptive data of female and male learning motivation are shown in Table 6.

Table 6: Combined table of descriptive statistics of learning motivation of females and males

Item	Female			Male		
	Quantity	Average	SD	Quantity	Average	SD
9	19	2.9565	1.3973	97	2.9286	1.3848
10	19	1.5217	0.8458	97	2.3571	1.4991
11	19	3.3478	1.6406	97	3.2143	1.3114
12	19	4.0435	1.1069	97	3.7143	0.9945
13	19	3.5652	1.6467	97	3.5714	1.6036
14	19	2.7826	1.6225	97	3.0714	1.43 92
15	19	3.2174	1.5062	97	3.7143	1.3828
16	19	4.4348	0.8435	97	4.3571	0.8419
17	19	3.913	1.2761	97	3.2857	1.43 73
18	19	4.3478	0.9346	97	4.2857	1.2044
19	19	4.1739	1.0292	97	4.2143	0.6993
20	19	3.7391	1.2142	97	4	0.9608
21	19	4.2609	0.9154	97	4.0714	1.1411
22	19	3.2609	0.9154	97	3.2857	1.1387
23	19	3.1739	0.9841	97	3	1.1094
24	19	3.9565	0.8779	97	4.1429	0.663
25	19	4	0.9045	97	3.6429	1.1507
26	19	3.7391	0.9154	97	3.7143	0.9139
27	19	4.3 043	0.8757	97	4.1429	0.7703
28	19	4.3913	0.7827	97	4.3571	0.9288
29	19	6.07708	1.1673	97	3.6087	0.9881
30	19	3.4286	0.9376	97	3.39143	0.9409
31	19	3.1429	0.8644	97	3.1739	1.1541
32	19	3.9286	0.73	97	3.7826	0.7359

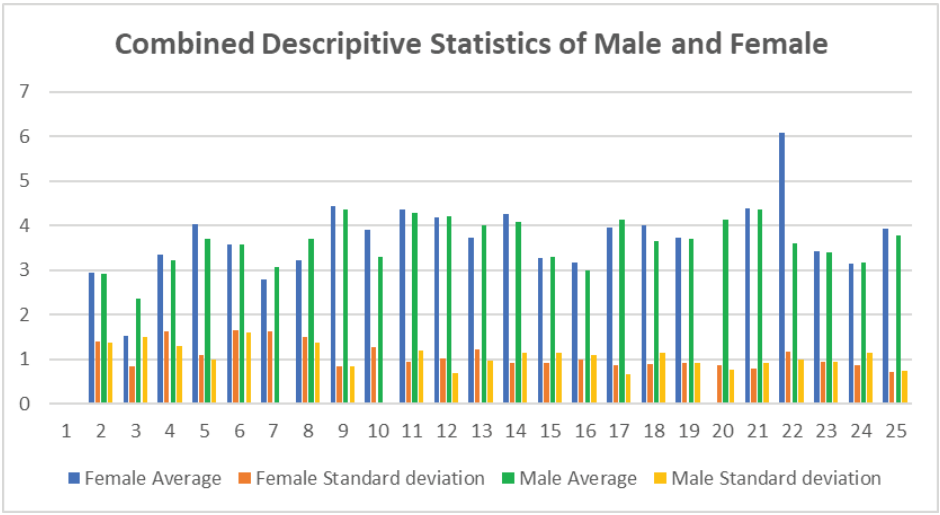


Figure 2: Combined disctriptive statistics of male and female

Table 7: Descriptive statistics of items with higher motivation for Females than Males

Item	Male		Female		The absolute value of the difference between the two means
	Average	SD	Average	SD	
12	3.5714	0.9945	4.0435	1.1069	0.3509
18	4.2857	1.2044	4.3478	0.9346	0.6273
19	4.2143	0.6993	4.1739	1.0292	0.3571
20	4	0.9608	3.7391	1.2142	0.3944
23	3	1.1094	3.1739	0.9841	0.5343
24	4.1429	0.663	3.9565	0.8779	0.4674
29	3.4286	0.9881	6.07708	1.1673	0.3845

Descriptive data of items with greater male motivation are shown in Table 8.

Table 8: Descriptive statistics of items with higher motivation for boys than girls

Item	Male		Female		The absolute value of the difference between the two means
	Average	SD	Average	SD	
9	2.3571	1.4991	1.5217	0.8458	0.8354
15	3.7143	1.3828	3.2174	1.5062	0.4969
21	4.2609	0.9154	4.0714	1.141	0.5745
22	4.3571	0.8419	4	1.1677	0.3571
25	4.0714	1.3281	3.5217	1.62	0.5497
27	4.1429	0.7703	4.3043	0.8757	0.5324

The Relationship between Chinese Learning Time and Learning Motivation Variables

Students' drive to study varies with their developmental stage. For example, students with more than a year of Chinese study report that those with less than a year have higher levels of learning desire.

The motivation of overseas students can be affected by factors such as their enthusiasm and desire to study Chinese and their previous exposure to the language. Statistics in Tables 9 and 10 reveal that overseas students from Pakistan are less motivated the longer they must put in for their degrees.

Table 9: Descriptive statistics of motivational factors of students who learn Chinese less than one year.

Motivational factor	Average	SD
Integration tendency	3.5786	1.3522
Attitudes towards Chinese-speaking people	4.0667	0.9892
Desire to learn Chinese	4.4	0.6806
Practical or utilitarian purpose of acquiring Chinese	3.8214	1.2071
Positive attitude of parents, friends, etc.	3.5667	1.4771
Good language background	4.15	1.0513
Evaluation of Chinese Teachers	4.1125	1.0187

Evaluation of Chinese language courses	4	0.9388
Interest in learning foreign languages	4.45	1.0501
Anxiety when using Chinese	3.2833	1.0057
Attitude to learn Chinese	2.9667	1.2346
Motivational strength	3.825	1.2171

Table 10: Descriptive statistics of motivation factors for learning Chinese for more than one year

Motivational factor	**Average**	**SD**
Integration tendency	3.4286	1.2991
Attitudes towards Chinese-speaking people	3.7843	0.9447
Desire to learn Chinese	3.9412	1.088
Practical or utilitarian purpose of acquiring Chinese	3.6555	1.2312
Positive attitude of parents, friends, etc.	3	1.5621
Good language background	3.9121	1.3112
Evaluation of Chinese Teachers	3.5735	1.3194
Evaluation of Chinese language courses	3.912	0.7812
Interest in learning foreign languages	4.1765	1.0146
Anxiety when using Chinese	3.0686	1 .1103
Attitude to learn Chinese	2.6863	1.3037
Motivational strength	3.4706	1.2848

Conclusion

As an empirical study on learning motivation, this research investigated and interviewed Pakistani international students in China, drawing from domestic and foreign theories. To stimulate and maintain the motivation of international students to learn Chinese, this research studies the influence of five types of motivation on the learning process and makes relevant suggestions from three perspectives: the international students themselves; teaching teachers; and Chinese textbooks.

Many researchers have focused on what draws overseas students to study Chinese in recent years, but more needs to be done to promote Chinese abroad. Based on research and analysis of the characteristics of international students, this paper proposes strategies for retaining and increasing the motivation of Pakistani international students to study Chinese. The ramifications of spreading Chinese abroad are not theoretical.

There are still numerous gaps in this investigation. For instance, the study needs to analyze the process and degree of effect of each form of motivation on learners' Chinese learning results, and it undertakes fully investigate the link between the five categories of motivation. The elements that affect students' desire to study have yet to be fully explored. Considering the limitations of this study, it would be ideal if additional researchers provided more in-depth insights.

Recommendations

This study looks at the role of intrinsic motivation in learning Chinese and finds that it plays a role throughout the process. Furthermore, the impact of extrinsic incentives on students' ability to learn Chinese must be considered. Many people and things can provide extrinsic incentive, such as classes, tests, and even Chinese textbooks. The effectiveness of students studying Chinese is most strongly influenced by the quality of their Chinese professors, followed by the quality of their access to Chinese textbooks. When it comes down to it, the content and style of instruction provided by Chinese teachers directly impact whether students to try to learn Chinese. Learning Chinese is significantly aided by exposure to Chinese texts.

Some findings on the motivation of international students of various nationalities to study Chinese are being examined considering the research on the motivation of Pakistani international students to study Chinese. Students of various nationalities and students from Pakistan who are learning Chinese have several aspects that influence their progress in learning Chinese. Since the effects are comparable, it is reasonable to assume that the research findings are also applicable to the acquisition of Chinese by students of various nationalities. International students studying in China from other nations can also benefit from the research's suggested changes. This study has a primary advisory function for Pakistani international students in China since it investigates the elements that influence the study motivation of these students and offers actionable recommendations based on those findings. Therefore, the following suggestions grounded in personality studies can be considered universal.

Suggestions for International Students in China

Overcome the Psychological Barriers to Chinese Learning

Based on responses from a poll of overseas students from Pakistan, it's clear that

many of them view Chinese language study as a formidable challenge. In addition, prior studies have shown that most students encounter psychological difficulties while first learning Chinese. For some, these barriers continue to impede their progress even in the later stages of language acquisition. Fear that learning a new language will be too challenging, an introvert's reluctance to interact with others even though such interaction is essential to the language-learning process, and the fact that learning a new language requires exposure to new cultures and ideas are just a few of the many factors that can create psychological barriers. It's much more demoralizing than the disappointment brought on by realistic expectations, at least when compared to the experiences of those who attended school simultaneously. Learners can mitigate the effects of psychological obstacles by, for example, talking to their instructors early and often about their struggles, comparing their experiences with those of their peers, and creating personalized study schedules. Maintain a consistent daily schedule, complete your daily learning objectives, etc.

Master Chinese Language Learning Methods

Chinese proverb states, "Practice makes a man perfect." The adage "practice makes perfect" suggests that, with enough repetition, a skill may be mastered. Some students put in a lot of time and effort to master Chinese, but their progress falls short of expectations, while others can put in less work to reach their goals. As a result, students enrolled in Chinese language classes should evaluate whether they are effectively learning the language and whether or not they are following the rules of language acquisition, such as whether or not they are previewing the material to be covered in the following day and whether or not they are reviewing what they have learned after class. In addition, take stock of where you stand regarding your knowledge of Chinese grammar fundamentals, etc. While these factors are not decisive, mastery of the rules of learning does have a cherry on top effect on Chinese learning.

Make Chinese Friends and Integrate into Chinese Social Life

The ideal conditions for mastering the Chinese language are found in China for foreign international students. It's easier for them to become fluent in Chinese through classroom instruction alone. Since it is a means of communication, language is also useful outside of the classroom. Researchers observed that Pakistani students in China needed a stronger drive for integration and had limited contact with Chinese pupils. Improving international students' knowledge of integration is crucial to succeed in studying Chinese. Students may expand their social networks among Chinese speakers, enhance their grasp of Chinese culture, bring Chinese lessons to life, and practice listening and speaking in Chinese. Forming language partnerships with other college students allows for more exposure to authentic language use in context and the opportunity to learn about and appreciate various cultures.

Suggestions for Chinese Teachers

Organize Interesting Classes

The study results show that students' enthusiasm to learn is significantly impacted by how engaging their classroom instruction is. It's been shown that students' perceptions of the difficulty of learning Chinese and their actual learning outcomes are positively correlated with how engaging their instructional materials are. There is now a need for more motivation among students studying Chinese, which hurts their ability to do so. Teachers in China, as the people responsible for determining what students learn and how it is taught, have much say in whether what is taught is engaging. Teachers can encourage increased participation in class by raising their standards, including new forms of media in lessons, and focusing on subjects that pique their students' interests. Improve students' interest in studying through interactive approaches, such as organizing them into teams to hold debates on a topic of interest, holding Chinese word game contests, and holding calligraphy competitions in the classroom.

Grasp the Learner's Learning Psychology

Because most people have psychological barriers when they first start learning a language, and these barriers may still be there in the middle or even at the end of learning. So, if teachers want to help their students learn well, they should know about the different ways people know. At this stage, please pay attention to how the students' hearts are changing and guide them based on how they are changing. This will help them find their ways to learn, develop good study habits, and improve how well they learn.

Actively Participate in Teaching and Training

The way Chinese is taught to students outside of China is different from how it is taught in China, and the requirements for foreign Chinese teachers are different from those for Chinese teachers in China. Teachers of Chinese must meet the three requirements below: First, your Mandarin Chinese must be standard, and you must have the right qualifications, which is a requirement. Second, students from different countries should be able to speak their native language well. Because each international student is different and has a different way of learning, their progress in learning Chinese will also be additional. If teachers can't talk to each other in Chinese, they must use one of the other languages of the International Students Union. Third, you have great control over your subject. "Classroom manipulation ability" refers to a teacher's ability to solve problems caused by students' different cultural backgrounds and answer students' questions about Chinese while still meeting their teaching goals. Suppose Chinese teachers want to improve their cultural knowledge and professional skills. In that case, they should take part in training for teachers of foreign languages, learn from the mistakes and lessons of their predecessors, and stay calm in emergencies. They can

also use it to get better ability to teach.

Suggestions on the Compilation of Teaching Materials

Conform to the Laws of Language Cognition

Textbooks are how teachers and students learn Chinese. Since learning Chinese is a step-by-step process for international students, textbooks are essential to their education. Whether or not the textbook's content matches the cognitive rules of the language and whether the textbook's structure makes sense affects how well the students learn. Different colleges and universities use other criteria to choose textbooks, but one of the most important is whether the textbooks match the way international students think about language. Because the textbooks are very professional, the author must think about the content and change it repeatedly. Because of this, many Chinese textbooks have been put out in more than one edition so that they can meet international students' needs. In short, it should be thought about whether it fits with language learning rules. This is true for both the content and the choice of teaching materials.

Teaching Materials are Easy to Understand

Most international students who come to China to learn Chinese need to learn the basics of the language. Because Western and Eastern cultures are so different, teaching materials must be easily understood. If international students want to be fluent in Chinese, the first and most crucial step is to understand what is in the textbooks. From this, they can better understand how big and deep Chinese culture is and how charming Chinese people are. Even though the material in the textbook is easy to understand, it should also be helpful and interesting.

Classroom Teaching is Colorful

First, teachers and students should get along well and make the classroom a lively place to be so that students who are feeling nervous can calm down. Since each student has their own ideas and personality, teachers should learn to respect each student and encourage them to have their own learning goals and development vision.

Second, teachers should be friendly to both students who do well in school and those who don't, and they should encourage both groups to learn Chinese actively. Because a student's emotional state affects how motivated they are to learn, both positive and negative feedback can make them more interested in learning and positively affect the learning effect. And the students who aren't learning as well as could need more encouragement from their teachers to get them to stop learning Chinese passively and start learning it actively and to keep their interest in learning. In the classroom, teachers should always tell students what they expect of them and praise them as they talk to them. They shouldn't criticize

and accuse students by shutting them up which could hurt their self-esteem and make them less knowledgeable. Want. There is a well-known benefit in psychology called the "Rosenthal benefit," which says that teachers who encourage their students will make them want to learn more and learn more intensely. Over time, students will do as well as or even better than the teacher expects.

Third, the tasks in the course should be set up in a way that makes sense. The content should be easy enough, and it should be exciting and useful for the students. For example, tasks that are closely related to everyday life and designing learning content that meets these two conditions are good examples. and activities, but they can also get them more excited about learning. Also, the learning tasks should be at the right level of difficulty and require a certain amount of work, so that when the international students finish them, they feel like they've done something.

Lastly, teachers should learn how to use multimedia technology to help them teach and take full advantage of network resources to help students learn more. Studies have shown that learning a language is a multi-sensory process and that the effects of learning a language are more apparent when both the eyes and ears are stimulated at the same time. So, multisensory learning is getting more and more attention in modern language teaching. Therefore, teachers should use various ways to teach to help students learn Chinese from an audio-visual perspective, deepen their understanding of what is being taught in class, and speed up their learning.

Extracurricular Activities

Activities outside of school are an essential part of learning Chinese. Students can strengthen their understanding of what they have learned in class by doing things outside of school. Aside from types, extracurricular activities can also be a good way for international students to learn Chinese and improve their ability to use it. And the more different and exciting the students' extracurricular activities are, the more interested they are in learning. The thirstier they are for knowledge, which can help motivate them to learn.

Extracurricular activities come in many different shapes and sizes, and teachers can plan different ones for their students depending on who they are. This study looks at the basic situation of international students learning Chinese and gives a summary of the following types of activities:

To start, set up interest activities outside of school, invite relevant teachers to teach traditional Chinese culture, and invite them to take part in interest activities together, like making dumplings, doing activities together at conventional Chinese festivals like Mid-Autumn Festival and Dragon Boat Festival, or watching Chinese dramas together, and so on.

Second, do things for the competition. The competition can include all parts of

listening, speaking, reading, and writing, such as calligraphy competitions, Chinese song quizzes, Chinese word competitions, etc., which can excite students about learning.

Third, set up group tours where tutors can take international students to famous sights in China and teach them about the country's history there. For example, they could visit the Summer Palace, Yuanmingyuan, the Great Wall, etc., to help them learn more about Chinese culture and improve their learning—A keen interest in Chinese.

Suggested Citation

Haqiqat, A., Alam, K.M. (2023). The Motivation of Pakistani Students Studying Chinese Language in China. In *Silk Route Revisited: Essays and Perspectives on the China-Pakistan Economic Corridor and Beyond* (pp.157-176). CSC-KIU.

References

Alam, K. M., Li, X., & Baig, S. (2019). Impact of transport cost and travel time on trade under China-Pakistan economic corridor (CPEC). *Journal of Advanced Transportation, 2019*.

Austin, L., & Shen, L. (2016). Factors influencing Chinese students' decisions to study in the United States. *Journal of International Students, 6*(3), 722-732.

Baig, S., Qasim, M., Xuemei, L., & Alam, K. M. (2020). Is the China-Pakistan economic corridor an opportunity or a threat for small and micro-entrepreneurs? Empirical evidence from Northern Pakistan. *Sustainability, 12*(5), 1727.

Crookes, G., & Schmidt, R. W. (1991). Motivation: Reopening the research agenda. *Language learning, 41*(4), 469-512.

Dai, M. (2000). On the research of second language vocabulary acquisition [J]. *Foreign Language Teachind and Research (2)*.

Dörnyei, Z. (1994). Motivation and motivating in the foreign language classroom. *The modern language journal, 78*(3), 273-284.

Dörnyei, Z., & Németh, N. (2006). *Motivation, language attitudes and globalisation: A Hungarian perspective* (Vol. 18): Multilingual Matters.

Dörnyei, Z., & Ushioda, E. (2009). *Motivation, language identity and the L2 self* (Vol. 36): Multilingual Matters.

Gao, F. (2011). Exploring the reconstruction of Chinese learners' national identities in their English-language-learning journeys in Britain. *Journal of Language, Identity & Education, 10*(5), 287-305.

Gao, Y., Zhao, Y., Cheng, Y., & Zhou, Y. (2003). Motivation types of Chinese college undergraduates. *Modern Foreign Languages, 26*(1), 28-38.

Gardner, R. C. (2001). Integrative motivation and second language acquisition. *Motivation and second language acquisition, 23*(1), 1-19.

Gu, Y., & Johnson, R. K. (1996). Vocabulary learning strategies and language learning outcomes. *Language learning, 46*(4), 643-679.

Larsen-Freeman, D. (2006). The emergence of complexity, fluency, and accuracy in the oral and written production of five Chinese learners of English. *Applied linguistics, 27*(4), 590-619.

Meng, B., Wang, J., & Zhang, W. (2005). Evaluation of regional disparity in China based on spatial analysis. *Scientia Geographica Sinica, 25*(4), 393.

Noels, K. A., Pon, G., & Clément, R. (1996). Language, identity, and adjustment: The role of linguistic self-confidence in the acculturation process. *Journal of language and social psychology, 15*(3), 246-264.

Schumann, F. M., & Schumann, J. H. (1977). Diary of a language learner: An introspective study of second language learning. *on TESOL, 77*, 241-249.

Scovel, T. (1978). The effect of affect on foreign language learning: A review of the anxiety research. *Language learning, 28*(1), 129-142.

Shi, Y. (2000). A survey of university students' English learning motivation. *Foreign Language Teaching Abroad, 2*(4), 8-11.

Sung, Y.-T., Chang, K.-E., & Liu, T.-C. (2016). The effects of integrating mobile devices with teaching and learning on students' learning performance: A meta-analysis and research synthesis. *Computers & Education, 94*, 252-275.

Yan, Z. (2019). *Ethnic Minority Children in Post-Socialist Chinese Cinema: Allegory, Identity, and Geography*: Routledge.

12

Exploring the China-Pakistan Educational, Cultural, and Bilateral Cooperation

Ajaz Ul Haq
https://orcid.org/0009-0006-8549-2746
China Study Centre, Karakoram International University, Gilgit-Baltistan, Pakistan

Introduction

Pakistan has a historical connection with its neighboring countries, especially with northern neighbors, which dates back around 4,000 years. The Silk Road, which connects China with Pakistan and other northwestern countries like Afghanistan and Turkey; all have intimate historical, cultural, and geographic links with Pakistan. Before the shaping of today's Karakoram Highway and other ways of transportation, the Silk Road, which comprises various routes and passageways, connected the Upper Indus Basin with the Tarim Basin in eastern Central Asia, assisting cross-regional trade and transportation of publics in the region. This historic route, which goes from the Karakoram Highway connecting Pakistan to China, through the passageway north to Kabul, and connects the Hindu Kush, is the "crossroads to Asia" revealed in the historical records of rovers who passed through these passages. These historical passages assisted as precursors to present corridors connecting this area in a broader sociopolitical choreography in the present day.

China and Pakistan marked the 70th anniversary of the establishment of diplomatic relations in the year 2021. Since the establishment of diplomatic relations, regardless of the changes in the world, the China-Pakistan friendship has always been unbreakable and solid as a rock. This begs why China-Pakistan relations are as good as the saying goes, "There are neither permanent friends nor permanent enemies, but only permanent interests." The friendly relations between China and Pakistan are ultimately because the two countries have common interests and mutual relations. China-Pakistan relations are not only based on interests but also involve the deep friendship between the two countries.

True Chinese rule started soon after the end of 2nd World War, the power of Britain was dwindling, and China was struggling for its dignity and survival and wanted to reclaim its regime. After many efforts, China declared its independence and became an independent country. On October 1, 1949, the new China was established. Soon after, Pakistan and China maintained friendly exchanges. On May 21, 1951, the two countries formally established diplomatic relations. As the first group of countries to establish diplomatic relations with China, Pakistan's support for China has always been at the heart of the Chinese people, and vice versa.

In the 1990s, the Indian side planned to attack and occupy Pakistani territory with the help of the Soviet military Pakistan would have suffered greatly if China had not offered its help in time. after that, China-Pakistan relations improved. China-Pakistan relations are indispensable for the prosperity and well-being of both countries. This is called “old iron”.

In the 1990s, the United States proposed sanctions against China at the United Nations. During this historical period, the United States sought the support of several countries with good relations with China, aiming to create an opposing front against China and secure a victory in the vote. The United States also approached Pakistan, hoping to strain its relations with China. However, their plan did not materialize as Pakistan needed to make a clear statement. Like the previous UN vote, Pakistan expressed unconditional support for China. It strongly opposed the U.S. sanctions, stating, ‘We strongly oppose the sanctions against China as they represent an unreasonable interference in national sovereignty.’

Despite being subject to U.S. control in various areas, Pakistan’s decision to openly oppose the United States at the UN General Assembly did not impact China-Pakistan relations; regardless of any repercussions, whether military or economic, China and Pakistan have maintained close mutual contact and provided bilateral support. Pakistan’s internal and external development has remained strong. As the famous Chinese saying goes, ‘Helping a friend in times of crisis is like helping a friend in the snow. This holds true for both interpersonal relationships and friendships between countries. The foundation of China-Pakistan relations lies in their historical diplomatic ties. If China had not aided Pakistan during the war or if Pakistan had not joined hands with China at the United Nations General Assembly, likely, China-Pakistan relations would not have been as steadfast. Since establishing diplomatic relations, leaders from both countries have treated each other like brothers. It is hoped that China and Pakistan can maintain this special friendship.

With mutual assistance, we will strive towards a better future. I firmly believe there is a genuine fondness between the people of my country and China. When I lived and studied in China, I was affectionately called the “Batie Brothers” (iron brothers) by the Chinese! The bond of friendship between China and Pakistan is being increasingly realized through collaborations in various fields, including politics, economics, trade, connectivity, maritime affairs, humanities, aerospace, defense, and international and regional security. The friendship between Pakistan and China has established a strong foundation of public support. Moreover, China is committed to supporting Pakistan’s efforts in promoting Chinese language education and will contribute to educational initiatives in Pakistan over the next five years.

Academic and Research Cooperation

Pakistan and China have long been allies, sharing borders and a cultural history

that dates to the ancient Silk Road. Both nations have consistently worked towards inclusion, peaceful coexistence, and regional progress. China has continuously supported Pakistan in various areas, emphasizing education and research, which are highly valued by both countries.

The China-Pakistan Economic Corridor (CPEC) provides a unique opportunity for educational and research institutions in the Belt and Road nations to engage in joint research. This collaboration spans trade and finance, human resource development, technological skills, industrial innovation, evidence-based policy formulation, and soft skills. CPEC, rightfully known as a "Game Changer" program for Pakistan, offers three crucial corridors for regional development: physical, intellectual, and technological. Pakistani universities should prepare themselves to seize these opportunities.

China has effectively utilized higher education as a means of soft influence to garner the sentiments and attention of the Pakistani people. The former Chinese ambassador to Islamabad highlighted that the next phase of the partnership between China and Pakistan would focus more on the people, with students, colleges, universities, and institutions playing key roles in cooperation. More than 28,000 Pakistani students currently study in China, ranking third in the number of students sent to the country.

According to the Latin American News Agency's April 14, 2019, report, China has become one of the top destinations for Pakistani students seeking to study abroad. Official data confirms this trend, and Pakistani media reports indicate that over 7,000 Pakistani students studying in Chinese universities have scholarships. China's "One Belt One Road" initiative and the "China-Pakistan Economic Corridor" flagship project offer several preferential policies. Pakistani students are pursuing studies in Chinese engineering, medicine, information technology, and other fields in China.

Chinese Scholarships for Pakistani Students

The government offers higher education opportunities to Pakistani students, and the scholarship amount is determined based on your province or place of residence in China. The governments of major cities provide numerous opportunities to foreign students, particularly from the Asian continent where Pakistan is located. According to records, the Chinese government grants over 1,000 Pakistani students the opportunity to study in top universities in China every year.

List of awarded Chinese Government Scholarships in 2021:

1. China Scholarship Council (CSC).
2. Confucius Scholarship.
3. Yunnan provincial government scholarship.

4. Chongqing city mayor scholarship.
5. Jilin provincial government scholarship.
6. Shanghai government scholarship.
7. Sichuan provincial government scholarship.
8. Heilongjiang provincial government scholarship.
9. Anhui provincial government scholarships for international students.
10. Chinese government scholarship.
11. Chinese University scholarship.
12. Guangxi government scholarship.
13. Hubei province scholarship etc.

Why do Pakistani Students Choose to Study in China?

With the deepening of economic and cultural exchanges between China and Pakistan, more Pakistani students are choosing to study in China. In recent years, the Chinese government has provided scholarships to Pakistan, encouraging many students from Pakistan to pursue their studies abroad. China has become the first choice for many Pakistanis, who consider it their second home.

There are several reasons for this trend:

1. The cost of studying in China is significantly lower compared to developed countries like Europe and Japan. Moreover, many Chinese universities offer special scholarship programs for international students, and outstanding academic achievements can further reduce tuition fees. This condition is highly attractive.
2. China boasts a vast territory and abundant tourism resources.
3. Over the past decade, China has opened its doors to foreign tourists, allowing international students to explore various choices and experiences.
4. China's rapid economic development is renowned globally, offering international students promising career opportunities after graduation.
5. China's investment in higher education has enhanced the reputation of its universities worldwide. The quality of education, both in terms of software and hardware, is commendable.
6. China provides a safe social environment. For those who have experienced danger and turbulence, the value of peace cannot be overstated. Many foreign visitors have expressed their love for this secure and pleas-

ant country. Compared to the internal conflicts in many nations, China's safe social environment offers great reassurance to international students.

7. Pakistan is a friendly cooperation partner and a good neighbor to China. The Chinese people are familiar with Pakistan. In recent years, China has provided significant assistance to Pakistan, with "Made in China" products playing a vital role in Pakistan's economic growth. Therefore, studying in China contributes to cultural exchange and further cooperation and development.

China-Pakistan Economic Corridor

The CPEC project is a game-changer for Pakistan's social, economic, and cultural development (Alam et al., 2019). Nations can prosper together when they work hand in hand, cooperating and coordinating. Through collaboration, they can even address more significant and multidimensional challenges. The partnership between China and Pakistan is built on mutual trust, respect, and a commitment to territorial integrity and shared interests (Baig et al., 2020). Over time, it has become evident that a strategic partnership involves many collaborations.

Under the CPEC umbrella, both nations can continue to cooperate in the future, pursuing shared economic, political, and security objectives. China recognizes that ensuring political stability in Pakistan is best achieved through economic growth. This realization has led to significant Chinese investment in CPEC, which could help alleviate Pakistan's economic deficit (Ghanem et al., 2021). Pakistan finds itself at a crucial moment in its destiny, with great economic prospects on the horizon. However, it must overcome the challenges posed by geographical limitations and the atmosphere of political transformation.

All Pakistani institutions must prioritize this exceptional opportunity with a forward-looking mindset. China's economic and military interests in Pakistan naturally extend from its expanding influence beyond Asia. China's involvement in Pakistan's growth is no longer a secret. The recent CPEC project is expected to transform and uplift Pakistan's underdeveloped regions (Baig & Zehra, 2020). China's investment in the Gwadar Port and the CPEC project is crucial for Pakistan's economic development. Chinese authorities have rightly understood that Pakistan's security and economic prosperity are also in China's best interests (S. A. A. Shah, 2023).

However, specific issues such as Pakistan's domestic problems, rising provincialism, constitutional uncertainty regarding the status of Gilgit Baltistan, and terrorism may hinder both countries from fully realizing the promise of CPEC. Additionally, the competition between India and Pakistan could limit the pace of growth that CPEC offers to China and Pakistan. The United States and its Indo-Pacific strategy support India's efforts to counter increasing Chinese influence in the Indian Ocean region. The strategic relationship between India and the US, aimed at curbing Chinese economic progress, can overshadow the economic

objectives of both China and Pakistan. Therefore, China's top priority should be resolving long-standing disputes with its two South Asian neighbors, India, and Pakistan. It should also focus on building a win-win scenario with India to prevent it from aligning against China at the behest of the US.

Bilateral Aid

Another area that reflects support is the Chinese government's assistance to Pakistan, which began in the 1960s. From 1965 to 1971, Pakistan received approximately $445 million in aid from China. However, the Chinese financial aid was in the form of loans and credits to Pakistan (Akber Ali, 2016). Nonetheless, the aid continued to flow and helped Pakistan import advanced industrial machinery from the People's Republic of China (S. M. Ali, 2020).

Between 2004 and 2009, China provided bilateral aid to Pakistan, amounting to around $217 million. This aid included assistance during the 2005 earthquake in Gilgit Baltistan, Khyber Pakhtunkhwa, and Azad Kashmir. In the aftermath of the devastating floods in 2010, which claimed thousands of lives and caused extensive damage to homes and infrastructure in Pakistan, China donated a $250 million aid package to the affected regions. This was the largest philanthropic assistance the Chinese government and people ever provided to any other country. Furthermore, China also provided $4.7 million worth of aid to those affected by the 2011 floods. In 2015, China extended $10 million in aid to internally displaced persons (IDPs) and flood victims in North Waziristan and the Federally Administered Tribal Areas (FATA).

China's Assistance to Pakistan: Covid19 in Perspective

From the very beginning of COVID-19, starting from December 31, 2019, when China informed the World Health Organization (WHO) about several cases of pneumonia with an unknown cause in Wuhan, to its global spread in March 2020, when WHO declared it a global pandemic, China has supported Pakistan in various scientific and technical fields. For Pakistan, China's continuous support is a testament to the depth of their bilateral relations.

With the Chinese government's and health administration's support, the National Institute of Health (NIH) in Pakistan has established an emergency response center. This center is fully computerized and equipped with the necessary equipment to meet international standards and WHO guidelines. The Chinese government provided PCR test kits to aid Pakistan's efforts, with the first batch shipped in February 2020. This early and timely support from China enabled Pakistan to respond to emerging cases of COVID-19 effectively.

NIH collaborates with several Chinese companies to produce COVID-19 diagnostic kits in Pakistan. This collaboration will significantly strengthen Pakistan's fight against the coronavirus. NIH has played an active role in combating the pandemic. In February 2020, they developed screening and testing guidelines

for the country's health departments and created a national action plan to combat COVID-19. NIH teams were deployed to all entry points into Pakistan to ensure testing and the establishment of quarantine facilities. NIH and other national stakeholders took a structured approach to respond to the pandemic.

Initially, Pakistan conducted 300 tests per day, but now almost 190 laboratories nationwide are performing PCR testing, with NIH ensuring quality-assured testing. NIH has also engaged with Chinese health authorities to share information and experiences. In late March 2020, a Chinese medical expert team from Xinjiang visited hospitals in Islamabad, Lahore, Karachi, and a military hospital in Rawalpindi. They shared experiences and provided training on preventing, detecting, and treating COVID cases. In May 2020, another Chinese delegation, including physicians who had dealt with coronavirus cases in Wuhan City, visited Pakistan for extensive consultations and experience sharing.

Additionally, in collaboration with the Frontier Works Organization and the National Disaster Management Authority, NIH constructed a 250-bed infectious disease hospital in a record 40 days with Chinese support. Furthermore, NIH coordinated the phase III clinical trials of the SARS-CoV-2 vaccine jointly developed by CanSino Biologics Inc. and the Beijing Institute of Biotechnology. The trials were conducted in three hospitals in Islamabad, Lahore, and Karachi, with NIH as the country coordinator.

Regarding Pakistan's cooperation with China in procuring vaccines, Dr. Ikram emphasized that China is the only country that has supplied Pakistan with nearly 1.5 million doses of vaccines, entirely through donations. Given their collaboration on Phase III trials in Pakistan, NIH expects to receive an additional 10 million doses from CanSino. NIH has maintained regular communication with the Chinese Center for Disease Control (CDC) through a special channel, strengthening cooperation between the two countries in the fight against COVID-19.

Pakistan became not only the first country in the world to receive COVID-19 doses from the Chinese government but also the country that has received the most COVID-19 vaccines donated by China to date. This serves as a vivid testament to the strong friendship between the two countries.

"A friend in need is a friend indeed." The depth and applicability of this saying can be observed in the decades-long relationship between Pakistan and China. Whether it's an earthquake, a war, or any dire circumstance, both nations have aided each other in times of need. Let's take the current COVID-19 epidemic as an example. It serves as the most recent proof of the strong bond between China and Pakistan, showcasing their community of destiny. During the COVID-19 outbreak, China and Pakistan collaborated and provided mutual support. When the virus first hit China, the Pakistani military, government, and citizens from all walks of life sent masks and other essential items for epidemic prevention. In return, Pakistan received a similar reaction and significant assistance when the

virus reached their country. Prime Minister Imran Khan expressed his gratitude to President Xi over the phone for China's efforts in combating the disease, acknowledging the support on behalf of the global community.

China's swift response in providing massive assistance to Pakistan should not come as a surprise. Their relationship, spanning over 50 years, is based on strong mutual benefit and strategic convergence principles. Although the amount of aid China has provided to Pakistan is still being determined, their relationship is not characterized by a patronage-based aid system but instead focuses on commerce and investment. China has also extended loans and financial support to other Asian and African nations. However, its relationship with Pakistan is built on mutual trust and shared objectives, maintaining unwavering harmony over the last seven decades.

China has shown its concern for Pakistan by acknowledging the devastating floods that have caused significant loss of lives and property. Through its actions, China has demonstrated that its relationship with Pakistan is genuine and goes beyond mere words.

Assistance Provided by Pakistan to China

It is a fact that all powerful countries will eventually become weak, and all weak nations will eventually become powerful due to the inevitability of change over time. As an all-weather ally, Pakistan has consistently demonstrated generosity by offering valuable support to its deserving brotherly country, China, during challenging times. This support was extended when China was striving to break the blockade, secure its rightful seat at the United Nations, and explore avenues for foreign affairs and openness. Time has proven the validity of these actions and rightly demonstrated the significance of these efforts (Christensen, 1999).

Simultaneously, Pakistan wields considerable influence over the Islamic world. Being the first Islamic country to establish diplomatic relations with China, Pakistan is recognized as a bridge-builder between China and other Islamic nations like Iran and Saudi Arabia. This distinction sets Pakistan apart as a pioneer in forging this important relationship. Similarly, China has shown respect and sincerity towards Pakistan, steadfastly supporting its independence, sovereignty, regional honor, and national dignity. China's unwavering support during Pakistan's challenges and crises, which threatened its national security and dignity, has earned China the respect and admiration of the Pakistani people (Blackwill & Campbell, 2016).

During the earthquake that struck Pakistan on October 8, 2005, China generously provided relief materials and financial assistance to the affected people. Pakistan reciprocated by sending relief supplies and a medical team comprising twenty professionals and paramedics to China. Relief commodities, including water, food items, and medications, were dispatched in multiple shipments to support

the affected regions in China. Pakistan donated over 10,000 tents to the earthquake victims, with plans to transport another 6,000 tents by road. Furthermore, specialized aircraft carrying relief supplies were sent (Mansoor, 2021). The Chinese ambassador to Pakistan expressed gratitude to the Pakistani government and people for their emotional and financial support, highlighting Pakistan as the first nation to provide humanitarian aid after the earthquake in China.

Similarly, when a devastating earthquake struck the Sichuan province in China in 2008, Pakistan promptly sent its aircraft carrying a vast reserve of tents to assist the affected areas. Both Pakistan and China have consistently supported each other when needed. China exhibited the same gesture of generosity when Pakistan faced severe floods in 2010 (Nawaz, Sharif, & Rabbani, 2015). China generously offered several medical teams for relief work and provided significant medical equipment. The strong bond between Pakistan and China is evident in their unwavering support and assistance during times of crisis, exemplifying the depth of their friendship and cooperation."

Cooperation in Language Promotion

Language and culture play an exceedingly important role in developing strong relations between nations. Promoting culture and language is critical for exchanging views and transmitting information between countries, connecting societies, and fostering connections. The same holds true for Pakistan and China. Both governments have made significant efforts to promote their respective languages.

For instance, there are four Pakistan Study Centers in China, where many Chinese university students are researching the Urdu language and Pakistani culture. The Sindh provincial government in Pakistan declared Chinese language instruction a compulsory subject for sixth-grade students in 2013. The Sindh education division allocated over 625 million Pakistani rupees in 2012 for teaching Chinese. In August 2008, Pakistan and China signed a memorandum of understanding (MOU) to construct the permanent campus of the Pakistan-China University of Engineering Science and Technology. The Pak-China Institute, an independent Pakistani think tank focused on China studies, was founded on October 1st, 2009. A Confucius Institute was also established at Islamabad's National University of Modern Languages in 2005.

During Chinese Premier Li Keqiang's visit in May 2013, an agreement was signed to open another Confucius Institute at Karachi University. More than 500 Pakistani students have been sent to China for language learning through the Confucius Institute of Karachi University (Asif, 2022). With the development of the China-Pakistan Economic Corridor (CPEC), Pakistani students have gained better education opportunities in Chinese universities, directly contributing to improving Pakistan's literacy rate (Kataria & Riaz, 2020). Moreover, the Chinese government has provided timely scholarships to deserving and competent students, significantly contributing to poverty eradication and creating new job

opportunities for Pakistani graduates.

Similarly, Pakistani students have shown great interest in the Chinese language to learn about Chinese culture, history, science, and technology. As China's economy and global exchanges have rapidly grown, there has been a high demand worldwide for learning Chinese as a second language. Taking inspiration from Western countries like the UK, France, Germany, and Spain, China established non-profit public organizations known as Confucius Institutes in 2004 to promote the Chinese language, culture, and history among foreign countries (R. Ahmad et al., 2020). These institutes adopt flexible teaching patterns and adapt to local conditions when teaching the Chinese language and promoting culture in primary schools, secondary schools, communities, and enterprises.

According to the 8th Confucius Institute Conference celebrated in Beijing, there are currently 443 Confucius Institutes and 646 Confucius Classrooms in over 120 countries or regions across the five continents. Pakistan also hosts five Confucius Institutes and multiple Confucius Classrooms. According to the Pakistan-China Institute, around 30,000 students in Pakistan are studying the Chinese language at various levels (Mahesar, 2019). In parallel, the Pakistan Embassy College Beijing (PECB) has started offering Urdu language courses. These classes, which began on September 9, 2014, are provided free of charge. The 16-week course held twice a week in the afternoon, consists of four modules focusing on listening, speaking, reading, and writing skills."

Confucius Institutes in Pakistan

The Chinese government has established numerous Confucius Institutes in Pakistan, which receive full support from the Chinese Ministry of Education. These Confucius Institutes and programs are always welcomed by the government and the people of Pakistan, who are strong allies.

Chinese language instruction is provided in Pakistan through five significant Confucius Institutes in partnership with Pakistani universities: the University of Punjab, the University of Karachi, the National University of Modern Languages (NUML), and the Agriculture University of the University of Sargodha. These Confucius Institutes offer Chinese language instruction and promote cross-cultural interactions among Pakistani students (Haidar & Fang, 2019).

These Confucius Institutes are the cornerstone of the robust friendship between Pakistan and China, which will be passed down to future generations due to the solid foundation of Sino-Pak ties. Over time, these institutions have evolved to provide much more than just Chinese language instruction. For instance, the NUML Confucius Institute launched the BS Area Study Center for China undergraduate program in 2018. This program includes numerous courses that enable students to explore the intricate facets of the Chinese language, history, art, and culture. Additionally, students and professors from these Confucius Institutes are

sent to China to enhance their understanding further and immerse themselves in Chinese culture.

Pakistani universities, especially those hosting Confucius Institutes, have prioritized research, logistical assistance, and collaboration with Chinese institutions, particularly since the initiation of the China-Pakistan Economic Corridor (CPEC) project. Officials from the Chinese and Pakistani education ministries agree that establishing these Confucius Institutes will improve ties between the two countries."

Chinese Students Acquiring Urdu Language Eyeing CPEC Employment Opportunities

A well-known proverb states, "To speak another language is to own a second soul. China's demand for Urdu language programs is growing. The teaching of Urdu in China began in 1951 with the establishment of the Urdu Language Department at Peking University in Beijing. Subsequently, Urdu departments were established in Xian, Sichuan, and Guangzhou institutions to promote the language in their respective provinces and universities. Since 2007, Urdu has been taught at Beijing Foreign Studies University (BFSU), and two batches of students have graduated with degrees in the language. In an interview, Dr. Zhou Yuan, the director of the Urdu Department at BFSU's School of Asian and African Studies, stated, "Of the total number of students who have graduated, a few have received scholarships for advanced education at foreign universities, while others have joined different companies." She added that the third cohort of 20 students is currently learning Urdu (Altbach, 2009).

Beijing Foreign Studies University (BFSU) has sent its third-year students to the National University of Modern Languages (NUML), Islamabad, and Government College University (GCU), Lahore, for a six-month program to improve their Urdu speaking and writing skills. The government of Pakistan and the Pakistani Embassy in Beijing provide financial assistance to Urdu learners through scholarships and exchange programs.

Furthermore, BFSU organizes Urdu calligraphy competitions, speaking contests, and cultural events to enhance students' knowledge of Pakistan and its people. Yuan Yuhang (Urdu name: Shabnam), the Urdu instructor at BFSU, noted that such activities not only promote Chinese students' enthusiasm for studying Urdu but also improve their proficiency in the language. Many Chinese students study Urdu in colleges and institutes across the country, particularly in Beijing. Some view studying Urdu as a practical tool for future work with Chinese firms involved in Pakistan's China-Pakistan Economic Corridor (CPEC) (Afzal & Naseem, 2018). Others are attracted to Pakistan's local culture, cuisine, and geography, while some are captivated by the beauty of the language itself.

Moreover, students recognize the changing landscape and anticipate that mas-

tering the Urdu language will increase their employment opportunities in both Pakistan and China. This sentiment was echoed in the comments of several students when asked about their motivation to learn the language. During a research interview, students responded, "Choosing Urdu is in preparation for launching my own import-export firm."

Dr. Zhou Yuan emphasized at a conference, "In recent years, more Pakistani youth have been studying Chinese, while few Chinese students have had access and opportunities to learn Urdu. Therefore, it is significant and necessary for BFSU to establish a professional Urdu language department where Urdu can be taught as a major subject." Dr. Zhou added, "Our first phrase at the beginning of the academic year in BFSU is 'long live China-Pakistan friendship.' We often have Urdu poetry readings, which are adored by Pakistanis. Now, an increasing number of Chinese students are eager to study Urdu due to the expanding cultural impact of Pakistan and the strengthening relationship between China and Pakistan."

Conclusion

Pakistan was one of the first nations to recognize the People's Republic of China. According to international strategists, this event began a long and stable partnership between Pakistan and China. Immediately after establishing diplomatic relations in May 1959, Pakistan and China formalized their strong and amicable bilateral ties. Over the years, this relationship has evolved into an "all-weather strategic cooperative partnership." Pakistan considers China as one of its closest allies and partners, while China refers to Pakistan as its "Iron Brother" (Begum, Ashraf, & Muzaffar, 2019).

Diplomatic relations have further strengthened this relationship over the last seven decades. In the 1970s, China implemented changes in the openness of its economy and government system, and since then, it has emerged as a regional and global economic and commercial powerhouse. China has now become one of the world's largest economies. The brotherly bond between the two neighboring nations is characterized by mutual trust, respect, and goodwill. There is a continuous exchange of high-level visits between the two countries, and Pakistan and China have enhanced their strategic cooperation over the past few decades.

China is Pakistan's largest economic partner and a significant player, especially in the infrastructure and energy sectors. In 2014, bilateral trade between the two nations exceeded 16 billion US dollars. The bilateral relationship reached new heights with the formal inauguration of the China-Pakistan Economic Corridor (CPEC). CPEC is the flagship project of Chinese President Xi Jinping's "Belt and Road Initiative" and aims to improve infrastructure and enhance connectivity between the two countries. Under CPEC, several projects for infrastructure development and energy production are underway. People-to-people interactions play a vital role in the bilateral relationship. The year 2015 was designated as the Year of Friendly Exchanges between Pakistan and China, and a range of high-profile

activities, including seminars, visits, and cultural events, were organized to showcase the people-to-people connections.

The relationship between Pakistan and China has traditionally been built on cooperation, shared principles, and consistent moral and financial support from both sides. As the world's largest economy, China has consistently provided substantial and appropriate assistance to Pakistan. Both fraternal countries are committed to supporting each other in times of need, whether during conflict or peace. The friendship between these two nations is an example for the rest of the world.

Suggested Citation

Haq, A.U. (2023). Exploring the China-Pakistan Educational, Cultural, and Bilateral Cooperation. In *Silk Route Revisited: Essays and Perspectives on the China-Pakistan Economic Corridor and Beyond* (pp.177-190). CSC-KIU.

References

Afzal, S., & Naseem, A. (2018). China Pakistan economic corridor (CPEC): Challenges and prospects. P*akistan Administrative Review*, 2(1), 209-222.

Ahmad, R., Mi, H., & Fernald, L. W. (2020). Revisiting the potential security threats linked with the China–Pakistan Economic Corridor (CPEC). J*ournal of the International council for small business,* 1(1), 64-80.

Alam, K. M., Li, X., & Baig, S. (2019). Impact of transport cost and travel time on trade under China-Pakistan economic corridor (CPEC). J*ournal of Advanced Transportation,* 2019.

Ali, A. (2016). China Pakistan economic corridor: prospects and challenges for regional integration. *Arts and Social Sciences Journal*, 7(4), 1-5.

Ali, S. M. (2020). China's belt and road vision: Geoeconomics and geopolitics: Springer.

Altbach, P. G. (2009). The giants awake: Higher education systems in China and India. Economic and Political Weekly, 39-51.

Asif, M. (2022). Confucius Institute as an instrument for the promotion of Chinese public and cultural diplomacy in Pakistan. A*sian Journal of Management, Entrepreneurship and Social Science,* 2(03), 39-69.

Baig, S., Qasim, M., Xuemei, L., & Alam, K. M. (2020). Is the China-Pakistan economic corridor an opportunity or a threat for small and micro-entrepreneurs? Empirical evidence from Northern Pakistan. *Sustainability*, 12(5), 1727.

Baig, S., & Zehra, S. (2020). China-Pakistan economic corridor, governance, and tourism nexus: evidence from Gilgit-Baltistan, Pakistan. *Current Issues in Tourism*, 23(23), 2884-2889.

Begum, S., Ashraf, I., & Muzaffar, M. (2019). Pakistan-China Iron Brother: A New Horizon of Interstate Relations. O*rient Research Journal of Social Sciences*, 4, 269-279.

Blackwill, R. D., & Campbell, K. M. (2016). Xi Jinping on the global stage: Chinese foreign policy under a powerful but exposed leader: Council on Foreign Relations Press.

Christensen, T. J. (1999). China, the US-Japan alliance, and the security dilemma in East Asia. International Security, 23(4), 49-80.

Ghanem, O., Xuemei, L., Alam, K. M., & Baig, S. (2021). The effectiveness of freight costs on trade potentials between China and European Union, Middle East, North African countries under China-Pakistan Corridor. *International Journal of Shipping and Transport Logistics,* 13(3-4), 327-359.

Haidar, S., & Fang, F. (2019). English language in education and globalization: A comparative analysis of the role of English in Pakistan and China. *Asia Pacific Journal of Education*, 39(2), 165-176.

Kataria, J. R., & Riaz, A. (2020). Pakistan-China social and economic relations. South Asian Studies, 29(2).

Mahesar, P. A. (2019). Scholarship and Friendship: How Pakistani Academics View Pakistan–China Relations. In China Studies In South And Southeast Asia: Between Pro-china And Objectivism (pp. 127-167): World Scientific.

Mansoor, A. (2021). *China Pakistan Economic Corridor: Is Pakistan Ready for Technology Catch-Up*? Hong Kong University of Science and Technology (Hong Kong).

Nawaz, M., Sharif, Y., & Rabbani, R. (2015). Full Text of President Xi Jinping's Speech to the Joint Session of Parliament in Pakistan. In.

Shah, S. A. A. (2023). Cultural Impact of CPEC on Pakistan and China. *Journal of Social Sciences and Management Studies*, 2(1), 43-48.

13

China-Pakistan Economic Corridor (CPEC) and the World: A Perspective

Nighat Moin
https://orcid.org/0000-0001-9095-3558
Department of Management Studies, Bahria University Karachi Campus, Pakistan

Introduction

A genuine friendship can withstand the tests of time and should be strong enough to endure whatever challenges come. This holds true for the relationship between Pakistan and China. Every aspect of their friendship, whether strategic, diplomatic, business, or political, has always remained active and unwavering. Additionally, it highlights how the world economies are considering the China-Pakistan Economic Corridor (CPEC) for the betterment of the region, despite some reservations regarding this transformative project.

Initially, the political situation in Pakistan posed obstacles to the progress of CPEC. Concerns about the routes and opportunities associated with CPEC were raised, and some were valid. However, many detractors caused chaos and destruction instead of trying to understand the rationale behind CPEC and its benefits. Khyber Pakhtunkhwa sought to find its place in the CPEC pathway. At the same time, the Baloch people expressed concerns about the mass migration of communities from different cities and districts, fearing that it would ultimately deprive the locals of benefiting more from the project.

CPEC: A Positive-Sum Game

CPEC's significance to China is vital, particularly due to the strategic importance of Gwadar Port. Approximately 60 percent of China's oil is transported by ships from the Persian Gulf to Shanghai, the sole trading seaport in China. This journey covers nearly 16,000 km. CPEC is indispensable for China as it helps foster Western regional connectivity and strengthens its relations with southern nations and Central and Western Asia (Alam et al., 2019). The oil pipeline from Gwadar to Western Asia will also mitigate the risks associated with piracy along the current oil import route through Malacca, providing a convenient means of importing oil from the Middle East to China. Establishing industries along the exceptional financial belt is vital to this project. It requires access to water, appropriate infrastructure, and a stable energy supply to ensure its completion and achieve the fundamental goal of connecting Xinjiang and Pakistan. The overarching objective of the entire CPEC project is to address economic challenges and promote sustainable development. This includes providing transit routes for Pakistan's trade with the rest of the world while facilitating enhanced business relationships and trade

opportunities for the Central Asian Republics.

Pakistan was one of the first countries to pledge cooperation with the Belt and Road Initiative (BRI). A Memorandum of Understanding (MoU) was signed by Pakistan and China in 2013, outlining a high-level, long-term action plan for CPEC. CPEC, as a mega project of the BRI in Pakistan, focuses on infrastructure development to promote trade (Sajid Hussain & Khan, 2017). The transport and infrastructure sectors play a predominant role within this framework. The BRI is a global initiative for infrastructure development, and in Pakistan, CPEC is a significant project under this initiative, focusing on improving transportation, energy, economics, communication, and overall economic development. The project aims to enhance economic growth and trade between Pakistan and China while also benefiting neighboring countries by improving Pakistan's connectivity with landlocked Central Asian republics (Vaughn & Morrison, 2006).

In Pakistan, a significant investment in road development has been made through the mega-project known as the China-Pakistan Economic Corridor (CPEC) (Salim & Sultana, 2019). Road and transport infrastructure development under the CPEC project aims to establish special economic zones, boost local goods' exports to the global market, and connect the People's Republic of China with Pakistan's Gwadar Port through roads and railways. It is understood that the local communities also benefit from creating roads and transport infrastructure. In partnership with the Chinese government, the Pakistani government is making substantial investments in improving roads and transportation infrastructure in Pakistan (Runge, Senauer, Pardey, & Rosegrant, 2003). The local Pakistani community directly benefits from this significant investment in CPEC, as it opens employment opportunities, supports the region's economy, and improves residents' living standards.

Regarding China's anticipated gains from CPEC, Gwadar Port holds extraordinary significance. Gwadar Port is poised to become a crucial trade hub for China, particularly for its oil-related operations. Currently, around 60 percent of China's oil is transported by ships from the Persian Gulf to Shanghai, the sole commercial seaport in China. This journey covers nearly 16,000 km and takes approximately 60 to 90 days (Ghanem et al., 2021). It is also exposed to various risks, such as extreme weather, maritime piracy, and other security threats.

Russia's Perspective on CPEC

Russia has expressed support for the China-Pakistan Economic Corridor (CPEC) project, even suggesting expanding its scope to include Russia and several former Soviet states (M. S. Ahmad, Asmi, Ali, Rahman, & Abbas, 2017). The promising alliance among China, Russia, and Pakistan can potentially transform the volatile region, as all three nations have been actively expanding their involvement recently. This indicates that Russia may be interested in engaging with CPEC and shares concerns about achieving peace, stability, and economic strength in South

Asia. The goal is to plan and achieve harmony in Afghanistan, and both Pakistan and Russia are enthusiastic about collaborating to restore stability in the region (M. I. D. G. Mustafa & Bhatti, 2020).

India's Perspectives on CPEC

Upon completion, the corridor would connect China with Pakistan and link South and Central Asian landlocked countries with China and other regions (Anwar, 2020). This would have significant implications for world trade and travel. It would save considerable time and costs as alternative routes become shorter and more affordable. This connectivity would be accessible to the entire South Asian region, including India, if these countries were willing to engage with the CPEC (Rana, 2017). Given that all South Asian countries, except India, are eager to connect with the CPEC, it is the shared desire of China and Pakistan that India joins the CPEC project to reap strategic economic benefits and foster collaboration with other SAARC nations.

The following points can be put forward to explain why India opposes the CPEC:

- India seeks to maintain its dominance in the South Asian region and aims to limit Pakistan's economic development choices.
- India also wishes to assert its false claim on Azad Jammu and Kashmir. By not being a part of the CPEC, India aims to undermine China's economic activities to retain its influence.

Overall, the CPEC is viewed as a strategic access route that fulfills Pakistan's trade and development needs. It has become a highly debated topic within Pakistan and globally. The CPEC is expected to enhance GDP growth by 1.5 percent and attract increased private investment due to a conducive environment, economic opportunities, improved infrastructure, and a stable economic system, including power and energy generation. Investment in the private sector is projected to increase by 0.5 percent in the country's GDP. The project's overall impact is estimated at 2 percent from 2016 to 2018, with an expected annual growth rate of 6 percent (Sisko et al., 2009).

Historically, South Asian states and China have always had strong ties in terms of business and trade. The ancient Silk Route was a crucial link that facilitated trade and connectivity between China and South Asia (Zimmerman, 2015).

Europe and CPEC

Many European nations want to join the Belt and Road Initiative (BRI) (Callahan, 2016). For instance, France appears interested in engaging with the CPEC, and it is believed that France would be the first among other European countries to engage with it. France considers Pakistan a vast and prosperous country for trade and business. It also aims to promote bilateral trade and establish productive connections, highlighting its significant importance to Pakistan. France believes

it possesses the necessary expertise and technology Pakistan requires during this transformative phase.

Turkey has shown a strong interest in joining the CPEC. The Turkish government has emphasized the importance of enhancing transportation, labor force, and information linkages and removing trade barriers. The Turkish President has stated that Turkey and Pakistan share a deep bond like brothers (Shafqat, 2021). Additionally, the Pakistani government has approved the establishment of special economic zones, which offer significant economic planning potential and opportunities.

Likewise, Germany holds a significant position as an economic and trade partner of Pakistan in Europe and seeks to strengthen their financial relations further. German enterprises have displayed a clear interest in substantial investments in various CPEC projects and specific sectors of Pakistan's economy (Holslag, 2017). German companies have shown interest in providing financial assistance in the energy sector, particularly in sustainable energy and energy-saving initiatives. This support aims to address the prevailing energy crisis in Pakistan. Additionally, there have been discussions about the potential investment of German firms in the automotive industry and rice and flour mill facilities, as suggested by officials.

Similarly, Pakistan and Belarus have agreed on collaboration and established special economic zones (Jahangir, Haroon, & Masud Mirza, 2020). Both countries will explore various sectors to contribute to infrastructure projects under the China-Pakistan Economic Corridor (CPEC). They plan to collaborate in manufacturing textiles, leather goods, woodworking, furniture, sports goods, and biomedical devices. The CPEC, valued at $46 billion, is a bilateral agreement between China and Pakistan. Economists widely regard it as a game-changer for the South Asian region. It provides a platform for promoting regional harmony and stability while enabling Pakistan to develop its tourism industry. Furthermore, it contributes to the economic prosperity of China. Over the past few years, Chinese imports to Pakistan have significantly increased under the umbrella of the CPEC.

In addition to enhanced economic cooperation, the CPEC can also support strategic implications and regional cooperation. It can strengthen China's ties and engagements with Central Asian and Middle Eastern regions (Butt & Butt, 2015). It also helps address concerns related to the South China Sea, as the CPEC provides China with a safe route to meet its energy needs while aiding Pakistan in developing its underutilized regions.

However, the CPEC has not been widely embraced by neighboring India, which views it as a threat to its security. In response, India has strengthened its ties with Afghanistan and Iran. The alliance between India and Afghanistan reflects their hostility towards Pakistan. Both countries have accused Pakistan of supporting terrorism and creating an unstable environment in the region on multiple occasions. In return, Pakistan has stated that India and Afghanistan collaborate to sup-

port insurgents in Baluchistan, thereby destabilizing the security situation. These circumstances have led China and Pakistan to strengthen their relations through the CPEC, which is China's leading overseas venture. Forecasters also believe that this massive project will enhance the strategic capabilities of both countries, including China's direct access to the Indian Ocean.

Furthermore, to counter India's goal of regional dominance, Pakistani military officials are eager to establish a Chinese naval presence in the Indian Ocean. In response to emerging threats posed by non-state actors, Pakistan aims to enhance its defense protocols. Despite being in the early stages, Pakistan's economic conditions have already begun to improve, primarily attributed to the business activities related to the CPEC. Pakistan is rapidly climbing the global competitiveness ladder, as evidenced by its seven-point increase in the World Economic Forum's Global Competitiveness Index, moving away from the bottom 20.

One factor contributing to Pakistan's progress is its infrastructure "pillar," which ranks Pakistan 110th in the report (Raza, Minai, Zain, Tariq, & Khuwaja, 2018).

The Emergence of China as a Global Superpower

Initially, China collaborated with non-aligned countries while consistently improving its position. It prioritized economic growth and building economically viable linkages globally rather than focusing solely on its development. The first step was its approach to economic growth in Southeast Asian nations during the financial crisis of the 1990s (Gatto & Sadik-Zada, 2021). This marked the beginning of a transformation in China's relationships with Southeast Asian countries. President Hu Jintao, throughout his term, focused on economic development and building closer ties. During this period, China sought to enhance its relations with the Middle East, Central Asia, and Africa (Tran, 2013).

President Xi introduced a new trend in international policy with the "Cooperative Engagement" strategy. The economic commitment was emphasized, complementing the concept of cooperative engagement. Xi confidently pursued the Silk Road initiative, which includes road and belt routes, railway networks, and maritime routes, also known as the "One Belt One Road" initiative. China sees the Silk Road as a trade and economic venture (Chan, 2018).

However, some analysts believe that One Belt One Road is not just a trade or economic concept but also a strategy for China's future global performance. China is positioning itself strategically within Asia and beyond through the "One Belt, One Road" initiative, aiming for economic and political collaboration. The Asian Development Bank and maritime bases in various countries are vital elements (Yu, 2017). The bank is seen as a challenge to the economic partnership and influence of the United States on the global stage.

Pakistan sees the CPEC as a critical solution to economic, mutual, and power-related challenges. Conversely, China views it as an opportunity to expand its

sphere of influence, strengthen its global presence, and secure energy and trade supplies. The fundamental idea behind China's international strategy, "Go Global 2001," positions Pakistan as one of the beneficiaries of China's vision (Y. Zhang, Alon, & Lattemann, 2005). Therefore, the CPEC offers both countries strategic and economic rewards. Due to its ongoing hostility towards Pakistan, India is unhappy about the rapidly growing economic ties between China and Pakistan. Additionally, the United States views the CPEC with concern as it could undermine its strategy to contain China. As a result, both countries are likely to employ overt and covert means to spread misinformation about the CPEC to create negative perceptions within Pakistan (Sun, 2015).

The CPEC project is comprehensive and promotes various aspects of development. It paves the way for stronger intellectual ties between the two countries. Notably, the CPEC is a win-win situation for both nations. It will connect China to the rest of the world while significantly impacting the economies of China and Pakistan (Deng, 2009). Its potential for regional prosperity must be addressed. In addition, China aims to establish a maritime pathway connecting South Asia, Southeast Asia, and North Africa with the northern Mediterranean Sea, thus linking South Asian regions with significant countries worldwide. South Asia can expect to reap the benefits of the CPEC project, especially in addressing its energy deficiencies by utilizing Central Asia's abundant gas and oil resources (Baig et al., 2020).

Suggested Citation

Moin, N. (2023). China-Pakistan Economic Corridor (CPEC) and the World: A Perspective. In *Silk Route Revisited: Essays and Perspectives on the China-Pakistan Economic Corridor and Beyond* (pp.191-198). CSC-KIU.

References

Ahmad, M. S., Asmi, F., Ali, M., Rahman, M. M., & Abbas, S. M. (2017). China-Pakistan economic corridor: In the context of 'String of pearl strategy. *International Journal of Business and Social Research, 7*(8), 26-42.

Alam, K. M., Li, X., & Baig, S. (2019). Impact of transport cost and travel time on trade under China-Pakistan economic corridor (CPEC). *Journal of Advanced Transportation, 2019*.

Anwar, Z. (2020). Development of infrastructural linkages between Pakistan and Central Asia. *South Asian Studies, 26*(1).

Baig, S., Qasim, M., Xuemei, L., & Alam, K. M. (2020). Is the China-Pakistan economic corridor an opportunity or a threat for small and micro-entrepreneurs? Empirical evidence from Northern Pakistan. *Sustainability, 12*(5), 1727.

Butt, K. M., & Butt, A. A. (2015). Impact of CPEC on regional and extra-regional actors. *The journal of political science, 33*, 23.

Callahan, W. A. (2016). *China's belt and road initiative and the new Eurasian order*: JSTOR.

Chan, M. H. T. (2018). The belt and road initiative–the new silk road: a research agenda. *Journal of Contemporary East Asia Studies, 7*(2), 104-123.

Deng, P. (2009). Why do Chinese firms tend to acquire strategic assets in international expansion? *Journal of world business, 44*(1), 74-84.

Gatto, A., & Sadik-Zada, E. R. (2021). Revisiting the East Asian financial crises: Lessons from ethics and development patterns. *Economic Growth and Financial Development: Effects of Capital Flight in Emerging Economies*, 23-31.

Ghanem, O., Xuemei, L., Alam, K. M., & Baig, S. (2021). The effectiveness of freight costs on trade potentials between China and European Union, Middle East, North African countries under China-Pakistan Corridor. *International Journal of Shipping and Transport Logistics, 13*(3-4), 327-359.

Holslag, J. (2017). How China's new silk road threatens European trade. *The International Spectator, 52*(1), 46-60.

Hussain, S., & Khan, M. A. (2017). CPEC; A roadmap of region's development. *FWU Journal of Social Sciences, 11*(2), 51-59.

Jahangir, A., Haroon, O., & Masud Mirza, A. (2020). Special Economic Zones under the CPEC and the belt and road initiative: parameters, challenges and prospects. *China's Belt and Road Initiative in a Global Context: Volume II: The China Pakistan Economic Corridor and its Implications for Business*, 289-328.

Mustafa, M. I. D. G., & Bhatti, M. R. (2020). Geopolitical Dynamics of Afghanistan and Concerns of Regional and Global Actors vis a vis Pakistan. *Pakistan Social Sciences Review, 4*(3), 792-806.

Rana, K. S. (2017). China's belt and road initiative (bri): Implications, prospects & consequences: Impact on india & its china diplomacy. *ICS Occasional Paper, 16*.

Raza, S., Minai, M. S., Zain, A. Y. M., Tariq, T. A., & Khuwaja, F. M. (2018). Dissection of small businesses in Pakistan: Issues and directions. *International Journal of Entrepreneurship, 22*(4), 1-13.

Runge, C. F., Senauer, B., Pardey, P. G., & Rosegrant, M. W. (2003). *Ending hunger in our lifetime: Food security and globalization*: Intl Food Policy Res Inst.

Salim, M., & Sultana, S. (2019). Gwadar and its Importance for Pakistan and China. *Balochistan Review*, 301-313.

Shafqat, S. (2021). CPEC and changing dynamics of China–India relations. In *China and South Asia* (pp. 17-34): Routledge India.

Sisko, A., Truffer, C., Smith, S., Keehan, S., Cylus, J., Poisal, J. A., . . . Lizonitz, J. (2009). Health Spending Projections Through 2018: Recession Effects Add Uncertainty To The Outlook: Payment trends for public and private payers are expected to diverge in 2009, as more people become eligible for public coverage because of recession-related effects. *Health Affairs, 28*(Suppl1), w346-w357.

Sun, W. (2015). Slow boat from China: public discourses behind the 'going global'media policy. *International Journal of Cultural Policy, 21*(4), 400-418.

Tran, V. T. (2013). The middle-income trap: Issues for members of the Association of Southeast Asian Nations.

Vaughn, B., & Morrison, W. M. (2006). *China-Southeast Asia relations: Trends, issues, and implications for the United States*.

Yu, H. (2017). Motivation behind China's 'One Belt, One Road'initiatives and establishment of the Asian infrastructure investment bank. *Journal of Contemporary China, 26*(105), 353-368.

Zhang, Y., Alon, I., & Lattemann, C. (2005). *China goes global*: Foreign Policy Centre London.

Zimmerman, T. (2015). *The New Silk Roads: China, the US, and the Future of Central Asia*: Center on International Cooperation New York, NY, USA.

14

Development of Morel Mushroom Technology in Gilgit-Baltistan: Chinese Experiences in Perspective, A Viable Option for Income Generation

Azhar Hussain
https://orcid.org/0000-0002-5777-2058
Department of Agriculture and Food Technology, Karakoram International University, Pakistan

Sartaj Ali
https://orcid.org/0000-0002-1250-5538
Department of Agriculture and Food Technology, Karakoram International University, Pakistan

Faqeer Muhammad
https://orcid.org/0000-0003-3261-3066
China Study Centre, Karakoram International University Gilgit-Baltistan, Pakistan

Amjad Ali
https://orcid.org/0000-0002-0894-7755
Department of Agriculture and Food Technology, Karakoram International University Gilgit-Baltistan, Pakistan

Introduction

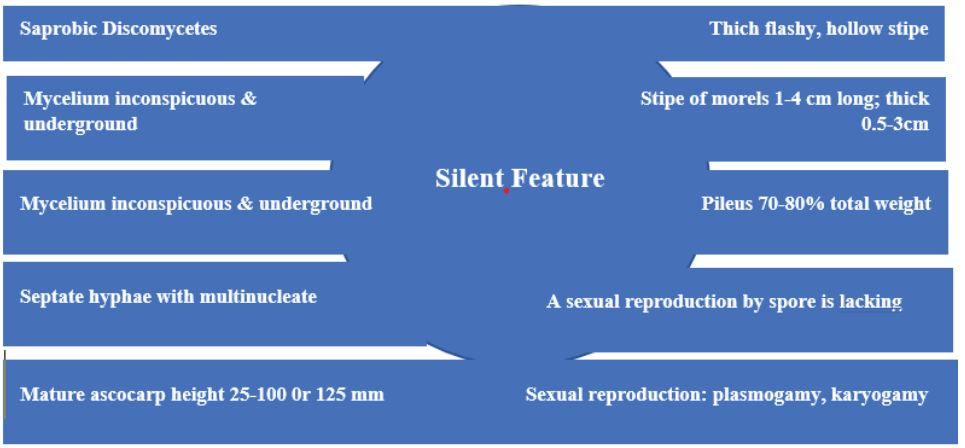
Mushroom cultivation on compost manure beds in caves and sheds is known since the 18th century. In the later stages, decomposed leaf debris was added to facilitate the fast growth and development of mushrooms (Quimio, Chang, & Royse, 1990). A significant shift in commercial mushroom production occurred in the sixties with the advancement of new technological approaches, the establishment of research laboratories, and global spawn production (Flegg, Spencer, & Wood, 1985). Mushrooms in nature grow on the roots of trees, in the soil as mycelium, which is white in oyster mushrooms (Figure 1). Around two thousand years have passed since the first-time mushrooms were utilized and valued as a delicacy. The first people to cultivate mushrooms were the Chinese. According to published sources, *Auricularia auricula* was initially grown in China in 600 (S.-T. Chang & Miles, 1989; Quimio et al., 1990).

Morchella spp. of morel mushrooms are essential edible commodities with a good taste and attractive appearance (Hibbett et al., 2007). Morel, as an edible fungus, has high consumer market demand and gets a premium price in America and Europe (Stott & Mohammed, 2004). The USDA had approved earlier morel

products as food and pharmaceutical items (Gilbert, 1960), while Chinese literature from the Ming Dynasty shows records in the prestigious "Compendium of Mediteria Medica" pharmaceutical text by Li Shizhen used as a remedy for stomach problems. "Guchhi" is a commonly referred name for morels in the Indian markets are considered a high economic value commodity in the Northwest Himalayan range (Lakhanpal, 2010). Available literature and current research progress regarding the genus *Morchella* discuss mainly its diversity, distribution, ecology, phylogeny, taxonomy, genome, and artificial cultivation (Kuo et al., 2012). Due to its immense scientific and economic significance, this genus has been a focus of research in recent years globally as well as in Pakistan. Among the 65 phylospecies of *Morchella;* China or East Asia represent more than half of them (34 spp.), including 20 endemic species. Compared to East Asia; a smaller species diversity is reported from Europe (27 spp.); amongst 12 spp. recorded as endemic (ref). North America represents 21 spp. Moreover, of which about 14 species have been reported as endemic (Du et al., 2012). However, recent data indicate that Morchella species diversity is concentrated in China or East Asia. *Morchella eximia* M. Kuo (Mel-7) is the most widely spread species among the 25% species recorded from Asia, Australia, Europe, South, and Northwestern America, according to reports on the distribution. Among the species of *Esculanta clade*, 60% were reported as endemic in East Asia, while 11% had disjunctive distribution. Contrary to that; a wide distribution was noted in 31% spp. of Elata Clade, and a high species diversity was observed in Europe compared to East Asia (Du, Zhao, & Yang, 2015; Kuo, 2008). Despite tremendous efforts over many years, the cultivation of morel is still a challenging job for researchers and growers. According to (Masaphy, 2010), *Morchella rufobruminae* fruiting body initiation and development have been successful on a laboratory scale. Mushroom growth started to show up two to four weeks after the first watering from the incubated sclerotia at temperatures between 16 and 22 °C and 90% relative humidity. True morels (Morchella spp.) are edible mushrooms with a delicate flavor and distinctive appearance that are commercially significant and are members of the Ascomycota, Pezizomycetes, Pezizales, Morchellaceae, and Morchella Dill families. ex Pers. These genera' species are all edible (Dai et al., 2008). A study team from the Soil and Fertilizer Institute of the Sichuan Academy of Agricultural Sciences in China domesticated *M. importuna* strain SCYDJ1-A1, the first morel variety approved in China, from a wild mushroom that was gathered in the eastern Tibetan Plateau. Given that it has been found in Yunnan, China, Germany, and Turkey on non-burned sites, *Morchella importuna* appears to be a facultative post-fire species (Richard et al., 2015; Taşkın, Büyükalaca, Hansen, & O'Donnell, 2012). The ectomycorrhizal lifestyle of many other species of Morchella, in which affiliations and interactions with plants are frequently necessary at phases, contrasts with its saprophytic nature. For practically all types of mushroom farming, spawn quality is essential. The cultural morphology of Morchella isolation in various growing conditions is erratic and unstable, which emphasizes the challenge in determining spawn quality. Even in China, there

are no established quality criteria for morel spawn; instead, quality assessments are based on empirical data, primarily the number of sclerotia. The connection between the development of sclerotia and ascocarps has not yet been studied. There are numerous questions about how to understand spawn production due to the lack of knowledge available on the morel's life cycle, growth, biology, and genetics (L. Chen, HMi, Huang, & Zhao, 2011).

Silent feature and Some Pictorial Atlas of Morel Mushroom



Chinese Contribution in Morel Production Technology

The introduction of exogenous nutritional bags is a significant development in China regarding morel cultivation and production. This idea originates from Owers patent, R.D., who is honored by Chinese scholars as the "Father of Morels." Some scientists from the Sichuan Academy of Forestry, in 2000, found some fruit bodies of morel in a flowerpot being supplied with exogenous nutrition outside their door (Tan, 2016). Further studies revealed that exogenous nutrient supply is crucial for the field cultivation of morel. Scaling up of field cultivation of morel started in 2011, initially at 200 ha and further with a quick expansion to 1600 ha in 2016, as shown in current survey reports from China (Q. Liu, Ma, Zhang, & Dong, 2018).

Morel Species Cultivated in China

Morchella importuna, M. sextelata, and M. eximia are the species that are now grown in China (Du, Zhao, Xu, & Yang, 2016; Wang & Xian, 2013). Based on morphological characteristics and molecular data, the cultivated morels were identified (He, Liu, Cai, & He, 2015). All these species are black morels. M. importuna made up about 80–90% of the cultivated area (W. Liu, Zhang, & He, 2017). The first strain of M. importuna, known as "Sichuan Morel No. 1," was authorized in China. Moreover, Morchella conica can be grown (Du et al., 2016).

Ways of Morel Mushroom Production

Different approaches in morel cultivation have been adopted to meet the growing market demand. Historical evidence of outdoor morel cultivation dates to 1882 in France (W. Liu et al., 2017). Nonetheless, a crucial success took place in 1982 in outdoor morel cultivation when Ower succeeded to grow morels in two basic steps i.e. sclerotia inoculation and supply of exogenous nutrition (Ower, 1982). On top of the soil, which had developed a mound of mycelia, the operator first spread plastic bags with sterile wet scrips. This crude version of the nutrition bag was employed and served as the basis for the later successful artificial growing of morels. In 2005, Gourmet Mushrooms Inc. (Mason County, Michigan, USA) started selling fresh morels that had been grown via a technique based on Miller's patent (Miller 2005), which referred to Ower's patent. However, the indoor growing of morels was stopped in the USA in 2008 due to issues with a lower yield and bacterial contamination (Tan & Ibrahim, 2017).

Methods for Morel Cultivation in the Field

The domestic production has persuaded several farmers, organizations, and policymakers in China and overseas of wild morel mushrooms. A vast range area is suitable for farming morels like farms, forest patches, hilly plains, and mountainous terrains with a dim light of sun. Hence direct sun rays hinder the growth. The cultivation steps included spawn production, land preparation with decomposed organic mulch, spawning, nutrient supply, fruit management, and careful harvest.

Spawn Production

Spawns are mushroom seeds. Like other mushroom cultivation processes, a starter culture, growth medium, and spawns are required to start the cultivation of morels. A variety of starter cultures can be developed from healthy, fresh fruit bodies of morel or acquired from a lab or other source of spawn. More cultures can be prepared from agar for extended production of starter cultures and further extending the large-scale production of spawn substrates. PDA (potato dextrose agar) with other humus is used for basic spawn production and further multiplication. Keeping in view the economical availability and easy access; a variety of raw materials for the preparation of substrates are used like wheat, wheat bran, sawdust, humus, and quicklime. A familiar substrate formula may be wheat,

husk, wheat bran, sawdust, gypsum, precipitated sodium carbonate, and humus in the ratios 46, 20, 18, 10, 1, 1, and 4% respectively. Heat-resistant containers (I.e., glass and plastic bottles) are used for initial spawn production. In contrast, heat-resistant plastic bags are used for final spawn production that conveniently facilitates transportation. The required spawn seed rate for cultivation of one hectare is almost 3000-3375kg, comprised of 4500 bags of 14x18 cm. Currently, private spawn producers directly provide spawn at an approximate cost of 52,500 to 75000 RMB (7620 to 10880 USD) to more farmers.

Spawning

Given their aerobic nature, morels thrive in loose soil. Before spawning, it is required to plow the ground and remove extras like rocks. Quicklime can occasionally be used in soil to eradicate pests and balance pH. The mushroom bed should be 15 cm deep and 80–150 cm wide. The beds are about 30 cm apart from one another. Although the morel spawn is immediately placed into the cropland or woodland, comparable to the seeding of wheat crops, the spawning process for morel agriculture differs from that for most other mushrooms. Depending on the elevation, the morel spawning season varies, but it generally lasts from October until the middle of December. When the local maximum temperature reaches 20 °C, spawning usually starts. A range of 50% to 70% soil humidity is maintained. It involves both strewing and seeding in trenches. After spawning, non-nutritive casing soil is equally applied over the spawn at a depth of around 3–5 cm. A cover and film mulching can assist keep the temperature, humidity, and low light levels stable.

Supplemental Nutrients from Outside Sources

Upon spawning, the morel mycelia establish themselves in the soil at an appropriate temperature and humidity, i.e., 20 °C and 50–70% soil humidity. A large area of whiteness that covers the surface of the mushroom bed after 10 to 15 days is known as a “powdery mildew.” The morel mycelia and conidia that grow on the soil are what are visible as this white patch. Then the mushroom bed can be covered with an exogenous nutrient bag. Wheat, chaff, sawdust, and cottonseed hull are some substrates employed in the exogenous nutrition bag. The same recipe can be used to create the final spawn, and some are listed in numerous Chinese patents, such as those for lime 5%, wheat 67%, and sawdust 28%. Exogenous nourishment does not seem to have a very rigid composition. A heat-resistant polyethylene bag is placed into the exogenous nutrition bag and then sterilized. The bag should have holes, or a significant cut made on one side before being firmly positioned in the mushroom bed. Between each one, 50 cm must be maintained, and 22500 to 30,000 bags per hectare are advised. After 15 to 20 days, mycelia will develop inside the bags using the nutrients added externally under ideal conditions. The bags utilizing the provided nutrients are removed after 40 to 45 days. External nutrition support is essential in the technique under discussion for the morel’s ascomata growth; nonetheless, the mechanism is still unknown.

Fruiting Management

Humidity (air) and moisture (soil) are the crucial consideration factors in morel cultivation. Over 50% soil surface humidity is recommended, which can be maintained by spray irrigation to overcome dry heat spells. Good drainage and water supplementation are essential factors for crop management. To produce quality fruit, soil moisture should be kept between 65 and 75 percent and air humidity between 85 and 90 percent. More soil and air humidity is necessary during fruiting. When the springtime temperature rises to 6 to 8°C, water is pumped into the bed trenches to maintain the ideal humidity levels in the air (85–90%) and soil (65–75%). The optimum condition of the surrounding environment speeds up the growth initiation of morel primordium. Cotter 2014 also suggests flooding for field cultivation of morels for stimulation of the growth process and utilization of nutrients suggests and microflora for fruiting. The optimum temperature for primordium development and fruit body setting is 6 to 10°C. Temperatures higher than 10°C are suitable for primordium differentiation. However, an increase in temperature above 20°C restricts the growth of morel fruit bodies. Temperature adjustment in outdoor cultivation can be made through mulching, spraying, and ventilation. Pest control is another important aspect of crop management morels where the eminent threat can be paused by mites, springtails, maggots and limax. At the same time, prominent contaminants are mold and bacteria. Biological and physical control measures are recommended to overcome pests and contaminants, whereas applying chemicals is not recommended.

Harvesting

Harvesting is recommended when the ascocarp develops to 10 to 15 cm with an apparent development of ridges and sinus. Careful handling is a must to retain the physical features of the fruit, and drying or dehydration at a lower temperature is recommended to maintain quality.

Issues and Perspectives

Morels are high prize commodities of immense nutritional and health benefits and are collected by the communities as a source of income to sell in the market. However, its domestication and farming have been successful in recent years in China. However, information and knowledge regarding the growth and development of fruit, especially spawn aging, nutritional requirements, and fruit body initiation, is still insufficient. Systematic research is highly required to solve the unresolved questions and promote scientific techniques to exploit this highly prized natural resource through artificial cultivation to increase the income of farm people.

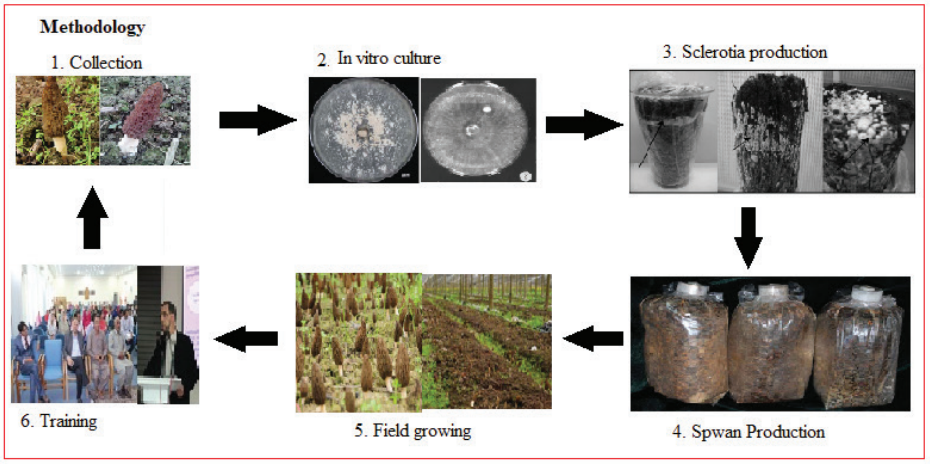
Life Cycle and Reproductive Systems

Many studies have been carried out on the *Morchella* life cycle. However, knowledge of the formation of sclerotia and the development of ascocarp is still thought of as a complex process to scale up the artificial production of morels. Hence,

studies on understanding the life cycle will contribute towards evolving efficient cultivation techniques that help improve the successful production of *Morchella*. Knowledge gaps still exist in understanding conidia development that is important in artificial cultivation. However, no conidia production has been observed in pure cultures under different conditions. Conidia producing mechanism of morels is still unclear, and it cannot develop into fruit when produced outdoors. An intermediate stage of sclerotia formation is required for morel fruit development. However, substrate composition is critical in shaping mycelial characters and sclerotia formation. A particular developmental stage of sclerotia may act as a precursor for the formation of ascocarp. Still, it may also be an organ for storing nutrients looking for suitable conditions to develop into an ascocarp. Experiences from China do not indicate the need of sclerotial formation for development of fruit body. Genetic studies of morel genome will provide a better understanding of various mechanisms regarding reproduction and fruiting through sequencing of related genes of morel. So far, under the 1000 fungal genome project; gene profiling of only two species is complete.

Spawn quality

Quality of spawn for cultivation and exploitation is crucial for all types of mushrooms. The spawn quality evaluation of Morchella isolates is complex as their cultural morphology varies about growth media since it is unstable and random. Besides, no agreed standards exist in China for spawn quality, and producers determine quality on their observations relying on the number of sclerotia produced. Sclerotia and ascocarp development are related but this has not been studied yet. Hence, clear information and knowledge on biology, especially genetics and developmental phases of the morel life cycle, is lacking, which has left many facts unturned related to spawn quality.



Business Opportunity

Most of the population in Gilgit-Baltistan is involved in agriculture, with about 80% of the population relying on it for their livelihood. Agriculture is traditional and subsistence-based, focusing on fruits and a small number of high-value cash crops. Farmers are generally from low-income families with limited land holdings and little knowledge of technology. Even though agricultural development has long been a focal focus of national strategies for poverty alleviation and economic progress, there is still a lack of execution, proper research, and study in this subject. Gilgit- Baltistan's biodiversity is also noteworthy, with a diverse range of plants and fauna. This allows for the development of various high-value items, including mushrooms. The potential for mushroom production for culinary and medicinal purposes is enormous due to this rich diversity. Because cultivated areas are fewer than one kanal per capita, the inhabitant is completely reliant on wheat supplied by the government at subsidized rates. Fruits and vegetables are the only source of income, but pre-and post-harvest losses of fruits and vegetables are between 50 and 70 percent. However, the diversity and technological involvement have provided resources that have yet to be harnessed and utilized. In this context, the only way to raise rural income and achieve a competitive structure for agriculture to increase job possibilities and growth is through innovation and diversification in agricultural systems. Furthermore, small family farms are disadvantaged because they lack sufficient area to grow crops and raise livestock. The greatest solution for dealing with these difficulties and ensuring the long-term development of rural community mushroom production is rural community mushroom production. The mushroom output might be significant if non-agricultural work and income options are available. Because small family businesses may not have enough acreage to grow crops or rear animals, intensive mushroom growing could be an excellent alternative source of income. This project focuses on the advancement of indigenous mushroom farming technology.

Competitive Analysis

Through economic, nutritional, and therapeutic benefits, mushroom growing plays a critical role in improving the well-being and livelihood of rural people. The study's findings may be valuable in developing ways to reduce poverty and assure food security for the community, academics, researchers, and government planning organizations. Mushroom production is the only option for poverty reduction and rural development in the region because of its high nutritional value and high price.

Innovation/Unique Selling Points

Morel mushrooms have a high commercial worth that has been recognized worldwide. Wild morels are harvested in significant numbers in China, India, Pakistan, Turkey, and North America. Food security is an issue in Gilgit-Baltistan, which is expanding. Because each person has less than one Kanal of arable land, they

are entirely dependent on the government's subsidized wheat supply. The only source of income is from fruits and vegetables, although pre- and post-harvest losses range from 50 to 70 percent. It is the finest option to explore developing indigenous mushroom production technology. The region's farming community can be empowered to improve mushroom technological production skills, which could become a major source of income soon. This initiative aims to pool information on morel mushroom collecting, identification, and production technique to provide a new window to the mountain community interested in mushroom growing. This project will benefit all individuals who want to learn about and start mushroom cultivation, including producers/entrepreneurs, researchers/scientists, and marginalized farming communities who want to start or incorporate it into their current agricultural system.

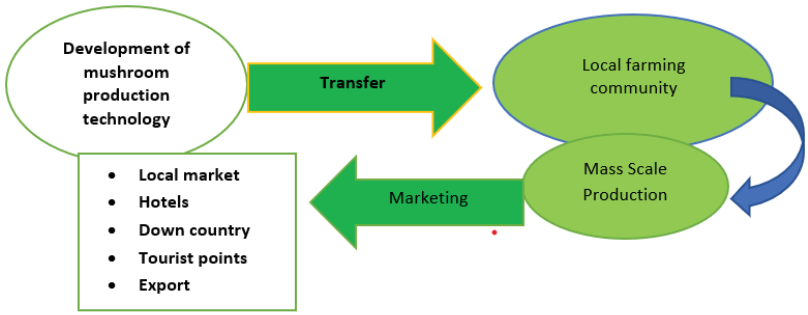
SWOT Analysis

Strengths: Morel is a scarce seasonal variety of mushrooms mainly found in Gilgit-Baltistan: Kashmir and some other parts of Pakistan. Significant earnings from a mushroom-growing operation can be realized in a matter of weeks. Also, building your profitable mushroom farm is simple. Gilgit-Baltistan has every kind of season and climatic conditions congenial for mushroom production.

Weaknesses: In Gilgit-Baltistan, it has many issues due to which we have no production technology for mushrooms. Primarily lack of public awareness, marketing technical knowledge and the perishable nature of mushrooms.

Opportunities: Alternative farming option, income generating source and new window for landless people and source of poverty reduction. This may be covered by the high protein and rich nutrients through mushroom. It is a source of employment generation. Small farmers and landless farmers have a wonderful opportunity.

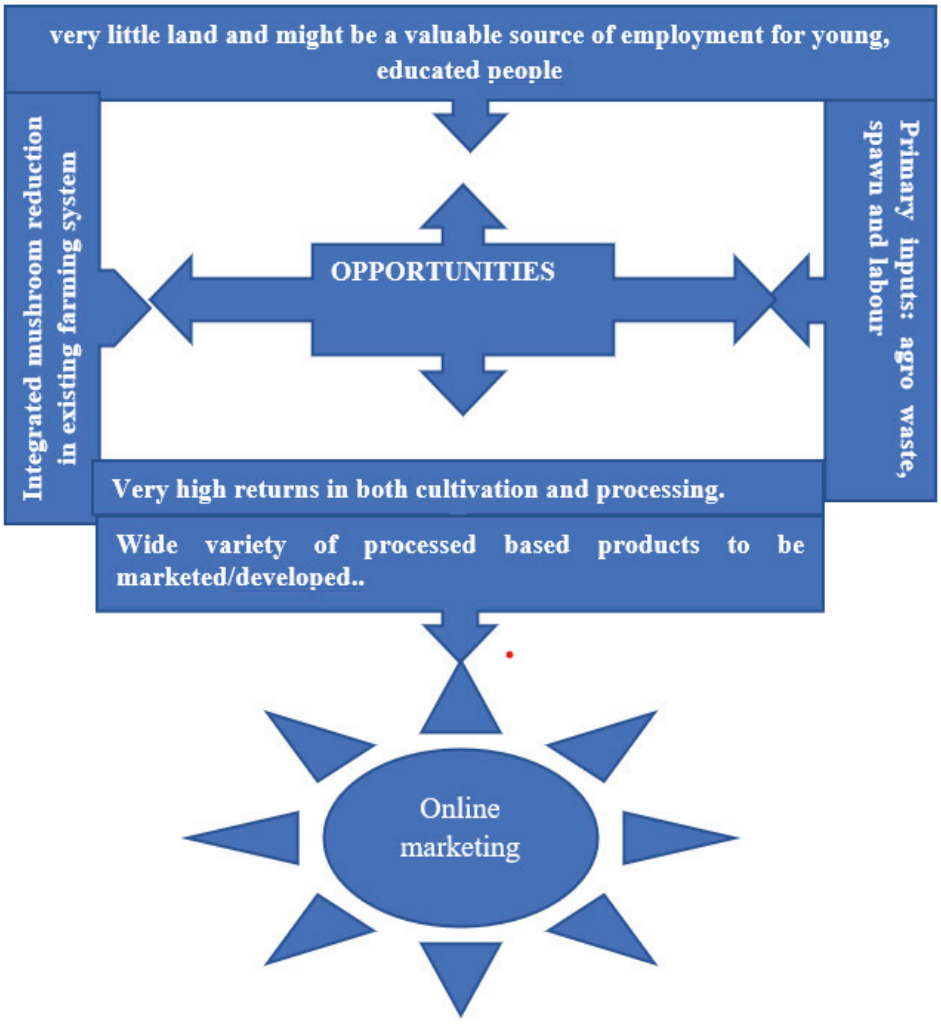
Threats: The marketing of mushrooms is a threat as we do have not a well-established market even for other crops. Competition from other counties and existing canned mushroom markets. Risk of supply exceeding demand. Sometimes different insect pests damage the mushroom crop.



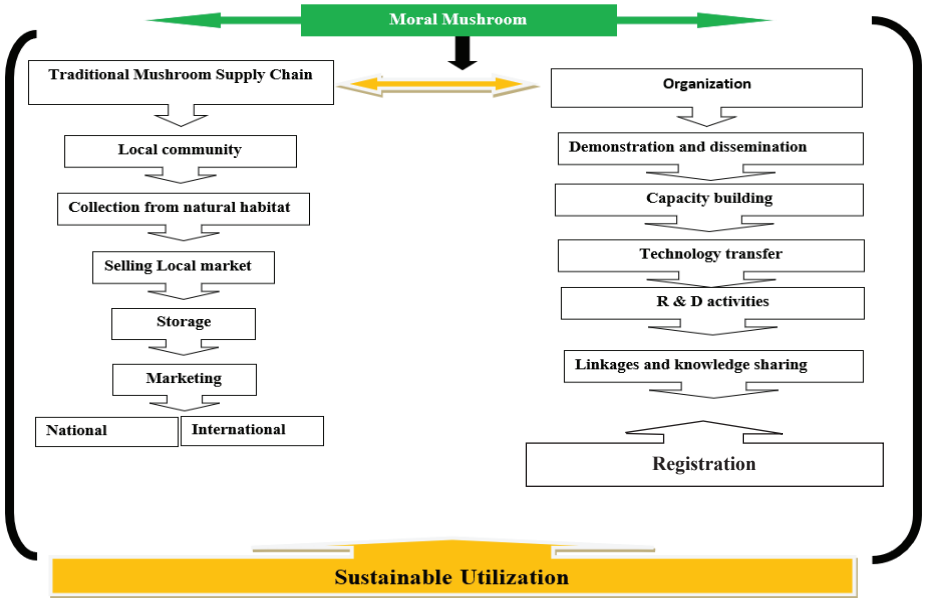
Marketing & Sales Plan

Financial Analysis

By supplying a high-yield, healthy food supply and a reliable source of income, mushroom farming can help end poverty and improve livelihoods. Since it doesn't require access to land, mushroom farming is a useful and alluring hobby for both semi-urban and rural residents. Mushroom farming has immense potential to provide new business avenues to uplift economy of the fragile communities and on the other hand it may support in improving nutrition, health, and food security situation. Morel value chain may involve many human resources in production, processing and marketing at local, regional, and national level providing jobs and money.



Entrepreneurship Opportunities



Conclusion

The current situation presents a significant challenge in ensuring the food and nutritional security of the world's expanding population. The farmer depends on crops, fruits, and vegetables. However, their production is decreasing daily due to different threats of the biotic and abiotic agents. In this situation, the cultivation of mushrooms finds a favor that can be grown even by landless people. There is a dire need for research on morels mushrooms which will help solve these problems and sustainable food and nutrition security. Morels are the most valuable culinary and medicinal mushrooms and have significant commercial and scientific importance. The distinctive springtime mushroom morels (Morchella spp.) are highly prized in food markets. The new developments regarding morel farming have ignited the hopes that this highly prized commodity will pave the way in the market and that promotion of the value chain will strengthen the commercial exploitation of morel mushrooms.

It is recommended that encourage people to grow Morel mushrooms as an alternative to traditional crops for sustainable development because they have great potential and economic return. There should be extensive campaigns to raise awareness of mushroom cultivation. And finally, Development of human resources is imperative for growing mushrooms and development of an efficient supply chain.

Suggested Citation

Hussain, A., Ali, S., Muhammad, F., Ali, A. (2023). Development of Moral Mushroom Technology in Gilgit-Baltistan: Chinese Experiences in Perspective, A Viable Option for Income Generation. In *Silk Route Revisited: Essays and Perspectives on the China-Pakistan Economic Corridor and Beyond* (pp.199-211). CSC-KIU.

References

Chang, S.-T., & Miles, P. G. (1989). *Edible mushrooms and their cultivation*: CRC press.

Chen, L., HMi, C., Huang, X., & Zhao, Y. (2011). Study on cultural characteristics of single spore isolation population from Morchella conica. *Biotechnology, 21*(6), 63-70.

Du, X.-H., Zhao, Q., Xu, J., & Yang, Z. L. (2016). High inbreeding, limited recombination and divergent evolutionary patterns between two sympatric morel species in China. *Scientific reports, 6*(1), 1-12.

Du, X.-H., Zhao, Q., & Yang, Z. L. (2015). A review on research advances, issues, and perspectives of morels. *Mycology, 6*(2), 78-85.

Du, X.-H., Zhao, Q., Yang, Z. L., Hansen, K., Taşkin, H., Büyükalaca, S., . . . Robert, V. A. (2012). How well do ITS rDNA sequences differentiate species of true morels (Morchella)? *Mycologia, 104*(6), 1351-1368.

Flegg, P. B., Spencer, D. M., & Wood, D. A. (1985). *Biology and technology of the cultivated mushroom*: Wiley.

Gilbert, F. A. (1960). The submerged culture of Morchella. *Mycologia, 52*(2), 201-209.

He, P., Liu, W., Cai, Y., & He, X. (2015). Strain identification and phylogenetic analysis of cultivated and wild strains of Morchella belonging to Elata Clade in China. *J. Zhengzhou Univ. Light Ind, 30*, 26-29.

Hibbett, D. S., Binder, M., Bischoff, J. F., Blackwell, M., Cannon, P. F., Eriksson, O. E., . . . Lücking, R. (2007). A higher-level phylogenetic classification of the Fungi. *Mycological research, 111*(5), 509-547.

Kuo, M. (2008). Morchella tomentosa, a new species from western North America, and notes on M. rufobrunnea. *Mycotaxon, 105*, 441.

Kuo, M., Dewsbury, D. R., O'Donnell, K., Carter, M. C., Rehner, S. A., Moore, J. D., . . . Methven, A. S. (2012). Taxonomic revision of true morels (Morchella) in Canada and the United States. *Mycologia, 104*(5), 1159-1177.

Lakhanpal, T. N. (2010). *Biology of Indian morels*: IK International Pvt Ltd.

Liu, Q., Ma, H., Zhang, Y., & Dong, C. (2018). Artificial cultivation of true morels: current state, issues and perspectives. *Critical Reviews in Biotechnology, 38*(2), 259-271.

Liu, W., Zhang, Y., & He, P. (2017). Morel biology and cultivation. *Jilin science and Technology Press, Changchun*, 1-340.

Masaphy, S. (2010). Biotechnology of morel mushrooms: successful fruiting body formation and development in a soilless system. *Biotechnology Letters, 32*, 1523-1527.

Ower, R. (1982). Notes on the development of the morel ascocarp: Morchella esculenta. *Mycologia, 74*(1), 142-144.

Quimio, T., Chang, S.-t., & Royse, D. J. (1990). *Technical guidelines for mushroom growing in the tropics*.

Richard, F., Bellanger, J.-M., Clowez, P., Hansen, K., O'Donnell, K., Urban, A., . . . Moreau, P.-A. (2015). True morels (Morchella, Pezizales) of Europe and North America: evolutionary relationships inferred from multilocus data and a unified taxonomy. *Mycologia, 107*(2), 359-382.

Stott, K., & Mohammed, C. (2004). *Specialty mushroom production systems: maitake and morels*: Citeseer.

Tan, C., & Ibrahim, A. (2017). Humanism, Islamic education, and Confucian education. *Religious Education, 112*(4), 394-406.

Taşkın, H., Büyükalaca, S., Hansen, K., & O'Donnell, K. (2012). Multilocus phylogenetic analysis of true morels (Morchella) reveals high levels of endemics in Turkey relative to other regions of Europe. *Mycologia, 104*(2), 446-461.

Wang, B., & Xian, L. (2013). Identification of cultivated Morchella. *Southwest China J Agr Sci, 26*, 1988-1991.

15

Geological Hazards along the CPEC Route from Gilgit to Khunjerab

Sher Sultan Baig
https://orcid.org/0000-0002-2798-309X
Department of Earth Sciences, Karakoram International University, GB, Pakistan

Garee Khan
https://orcid.org/0000-0001-6768-5735
Department of Earth Sciences, Karakoram International University, GB, Pakistan

Masroor Alam
https://orcid.org/0000-0003-1173-0001
Department of Earth Sciences, Karakoram International University, GB, Pakistan

Introduction

The Karakoram Highway (KKH) is a vital road connecting western China and northern Pakistan. It is a unique geohazards laboratory due to its characteristics, such as steep slopes, active faults, seismic zones, sheared rock mass, and high rainfall (Abbas et al., 2021; Ali, Biermanns, Haider, & Reicherter, 2019). Since its construction, landslides have consistently posed a severe risk, causing numerous disruptions. To address this issue and ensure secure and efficient transportation, we conducted a project to map the susceptibility of landslides along the highway. We employed Geographic Information Systems (GIS) to gather and process data on geology and geomorphology. By considering various factors that contribute to landslides, including lithology, seismic activity, precipitation volume and intensity, faults, elevation, slope angle, aspect, curvature, and hydrology, we created a susceptibility map (Ali et al., 2019).

Spatial and statistical analysis revealed that active faults, seismic activity, and slope angle were the key factors determining the spatial distribution of landslides (Wang, Sassa, & Xu, 2007). The Karakoram Highway traverses one of the world's fastest-growing mountain ranges, characterized by intense geodynamic activity resulting from earthquakes, glacier erosion, river incision, periglacial action, and unexpected monsoonal rainfall (Lilly et al., 2021). Since its completion, the Karakoram Highway has experienced numerous natural disasters, including rockfalls, debris slides, debris flows, mudflows, dry powder flows, flash flooding from water and river gravels, foundation undermining due to abstraction, subsidence, and frost heaving (Kardon, Kennedy, & Dutton, 2020). The road surface is frequently damaged by freezing, floods, and the impact of rockfalls.

To comprehensively assess the hazards, we conducted a survey covering over 200 km from the Khunjerab Pass (the border between Pakistan and China) to Gilgit.

Both field mapping and gravimetric approaches were utilized to study landslides and debris flows.

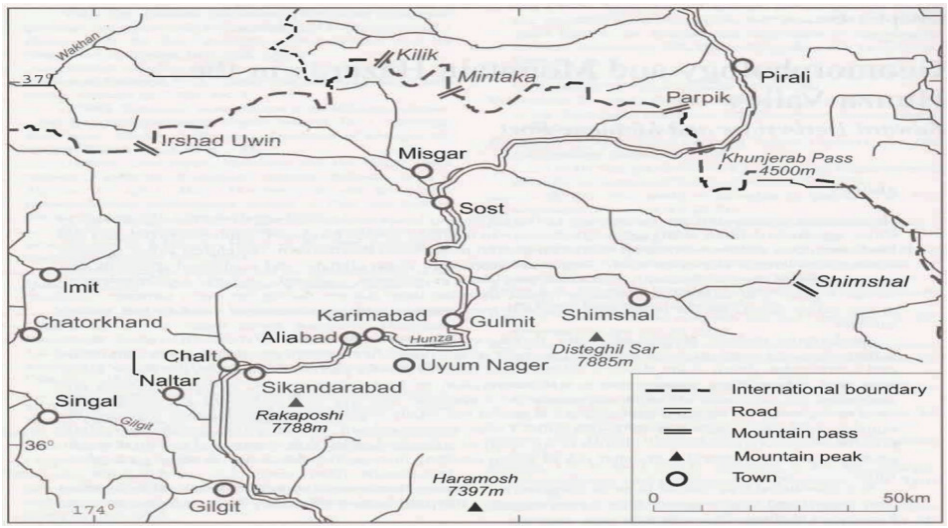


Figure 1. Selected locations in relation to the Karakoram Highway, northern Pakistan (Source: Derbyshire et al., 2001)

Figure 1. Picture shows the Attaabad landslide triggering situation (4th January 2010). (Source: from internet, photo by local)

The Karakoram Highway (KKH) faces significant threats from various natural disasters influenced by the geological features along its route (Kulsoom et al., 2023; Maqsoom et al., 2022). These hazards include large-scale meltwater streams from select glaciers and semi-permanent mass movements on steep cliffs of uncement-

ed late Pleistocene till. The most significant risks come from talus fan sliding, alluvial, and mudflow fan progradation (Edward Derbyshire & Owen, 1990).

Landslides are primarily caused by environmental changes, with an increasing number resulting from extreme climatic events that devastate finances and human lives. The KKH is a crucial component of the Asian Highway Network, serving as a geopolitical bridge connecting China and Pakistan with the South Asian continent and acting as a geospatial link between Pakistan and China (Baghel & Nüsser, 2015; Khan, Shitao, & Khan, 2022).

The raised mountain topography, abundant loose material, and sudden heavy rainfall contribute to severe geological disasters, including rock collapses, glacier debris flows, landslides, debris creep, soil creep, and occasional avalanches (Walker & Shiels, 2012). Since 1987, around 115 rock avalanches have occurred due to extremely large rockslides or rock falls (Zimmer & Sitar, 2015). The massive earthquake that struck northern Pakistan in 2005 caused significant long-term damage to the KKH and triggered numerous landslides. In 2010, a massive landslip at Attaabad blocked the river, forming a barrier lake that extended over 20 km in length (Butt, Umar, & Qamar, 2013). This event submerged the road and caused severe traffic disruptions (see Figure 1).

It was determined that 150 glacier debris flow over the KKH caused bridge damage by 2011 (Zhao et al., 2019). As a result of all these tragedies, roads and the neighborhood suffer tremendous harm. Assessing KKH's susceptibility to geological disasters is essential for this reason. The current disaster assessment of the region, however, only concentrates on the investigation and evaluation of a single debris flow ditch or landslip, such as the investigation of surge-type glaciers and the activity degree evaluation of glacial debris flow, due to the vast extent and complex geological conditions in this region. Furthermore, there needs to be more regionally specific historical disaster data, making it difficult to do the disaster assessment.

Background

The region of the Karakoram Mountains in Pakistan's extreme north is hostile. The highest known rates of uplift sustain some of the highest relative relief on Earth, and the incredibly steep climate gradients (from glacial to hyper-arid) produce an environment that is characterized by extremes (Edward Derbyshire, Fort, & Owen, 2001). The presence of the biggest glaciers outside the polar regions, seasonal hydraulic action from strong precipitation events, quick snow and ice melting, and frequent earthquake shocks all contribute to the instability of the numerous thick accumulations of young, uncemented sediments and the long, steep slopes (Owen & Derbyshire, 1988). Regionally and locally, the landscape system is characterized by extremely high erosion rates. Numerous natural phenomena, such as huge rock avalanches (Hewitt, 1989), produce localized, high-magnitude, low-frequency events that are challenging to foresee and accurately predict. The

area is lightly populated because there are few locations appropriate for human settlement and life. Even so, the history of the impact of such events on the human settlements, recorded from 1830 to the present (Kreutzmann, 2006), makes sober reading. The imposition, at the end of the 1970s, of a major engineering structure, the Karakoram Highway, on this dynamic terrain introduced into the Hunza Valley for the first time a source of human-induced geological hazards of a much higher order than before. This study is the first to provide a detailed (1 km spacing) factual statement of the relationship between terrain type, operative surface processes, and highway condition for the entire length of the highway in the Hunza Valley. In Gilgit-Baltistan, risks from geological and hydro-meteorological hazards seriously threaten people's lives and means of subsistence. There is a seismically active zone throughout the entire area (Edward Derbyshire et al., 2001).

The hydro-meteorological risks in these mountain valleys include landslides, rock falls, debris flows, snow or ice avalanches, glacial lake outburst floods (GLOFs), and flooding. Debris flows, floods, and earthquakes frequently cause havoc with daily life and set back local development. The 1858 Sarat Rock Avalanche with subsequent catastrophic lake outburst flood and the 1893 and 1905 Karambar Glacier Lake Outburst Floods, both of which occurred in Gilgit-Baltistan and destroyed numerous villages along the main rivers downstream, are a few past historic (catastrophic) events (Hussain, Sadiq, & Latif, 2010). These events occur in addition to the "normal" natural events that frequently occur and have a small geographic extent.

These natural events have a significant impact on the local populace. As more regions are used for agriculture, commerce, and housing that are vulnerable to natural disasters and unsuitable for any human activity, there is also an increase in physical vulnerability. Besides the population's exposure to natural threats, the socio-economic conditions in Gilgit-Baltistan and Chitral are unfavourable. Most households need more financial resources and employment possibilities. Their ability to manage the risks from many dangers is essentially non-existent. Additionally, according to IUCN Pakistan, the high population growth rate (5 to 6 children per family are still considered normal) results in a noticeably higher need for food, energy, and land. Indications of the negative impact of climate change on wildlife and natural disasters are a significant issue across the entire area (Bruce, 1994). People observe changes in snowfall (stronger events with subsequent avalanches), thunderstorm frequency, and the beginning of the hot and dry season earlier. The China-Pakistan Economic Corridor (CPEC), which links western China and northern Pakistan, includes the Karakoram Highway (KKH). It forms the intersection of the Indian and Eurasian plates, passing through the Himalayas, Karakoram, Hindu Kush Mountain ranges, and the Kohistan Island Arc (Edward Derbyshire et al., 2001). Arid to monsoon climate, fractured and worn rock masses, a variety of lithologies (igneous, metamorphic, and sedimentary), strong seismicity, deep gorges, high relief, and locally high rates of tectonic activ-

ity are all features of the region (Edward Derbyshire, 1996). The study region is a unique geohazard laboratory due to these circumstances. Numerous geohazards have threatened KKH's stability ever since it was built in 1979. The 840 km long (10 km buffer) Karakoram Highway (KKH), N35, which is situated in the Karakoram Mountains of the Himalayas, is the research area. The region has some of the world's tallest peaks (Rakaposhi: 7788 m) and highest reliefs (Hewitt, 1989). According to (Goudie, 1984), the steepest location on Earth is the research area, where the elevation decreases from 7788 to 2000 m over a horizontal distance of 10 km.

Glaciers and Climate Change

Climate change affects glaciers adversely. The Himalayas and adjacent areas of High Asia have recently been the subject of numerous reports of significant changes, most commonly the rapid retreat of glaciers. On a local, national, and global level, there is worry about the effects of various glacier risks and how reliable water resources are. Glaciers are dynamic, and as such, they significantly impact the hydrologic, geologic, and biological systems in the settings where they are found. Glaciers offer good indicators of local and global climate change due to their sensitive and dynamic reaction to changes in temperature and precipitation. A lengthy and labor-intensive process goes into glacier monitoring and analysis. Years may be needed to investigate the effects and alterations in a glacier and how glaciers respond to the projected climate scenario. To prepare and conduct more in-depth research, we must quickly gather the most data possible. Most of the rivers' sources are glacier meltwater and snowmelt. Climate change in the area is causing flash floods and other hydro-meteorological occurrences. The entire area comprises young, tertiary mountain ranges that are still tectonically active. The area has GLOFs, unstable steep slopes, debris flows, and land sliding.

However, it is becoming increasingly apparent that the region's glacial conditions and climate change adaptations are diverse. Glaciers play a significant role in the hydrologic cycle and impact the quantity, variability, and quality of runoff. To evaluate and forecast how glaciers may affect water supplies, a monitoring program is necessary to give the fundamental information. The glaciers serve as a water tower for freshwater supply and a data bank for studying quaternary climatic changes because they are still sensitive to earth temperature changes. Most glaciers are reportedly melting quickly across the globe. There have been numerous reports of "disappearing glaciers" throughout High Asia. The glaciers in this area have survived for many years, and recently, many of them in the Karakoram Himalaya have begun to thicken and advance. This not only goes against the general trend for Eurasian glaciers but also against what had been occurring to Karakoram glaciers. They, too, waned and receded for most of the 20th century. There is no doubt that the behavior of today is a uniquely localized response to climate change. Given the prevalent sorrow for the melting of the glaciers, it might sound encouraging, but that would also be false. Glaciers that are moving

forward also pose risks.

In different Asian mountain regions, climate change has different effects. The situation in the Karakoram must reflect some circumstances. Three characteristics of the local environment seem crucial. The glaciers' sustenance and snowfall are discussed in the first two points. They fall somewhere in the middle between the larger Himalayas' summer accumulation (snowfall) glaciers and the Caucasus and European Alps to the west's winter accumulation glaciers, for example. Significant glacier retreat is noted in each of the latter. Second, in contrast to most other mountain ranges and these, the Karakoram has a far higher zone of maximum precipitation. It also lies totally inside the glacier accumulation zones. This relates to the third element, the extraordinary altitudes, and the elevation range of these ice formations.

High-mountain and polar locations have glaciers essential to their culture, environment, and landscape. They are a unique source of fresh water for domestic, industrial, and agricultural usage. They are also a significant source of revenue for the hydroelectric industry and tourists. The pace of melting of glaciers, which is the best indicator of climate change due to the rapid increase in world temperatures. Since most glaciers' ice is on the verge of melting, they respond to temperature changes very quickly, and as a result, they offer some of the most direct proof that climate change is still happening. Since they are still susceptible to fluctuations in the world temperature, the glaciers serve as a water tower for the provision of freshwater as well as a data bank for studying quaternary climate changes. As a result of shifting climatic circumstances in Pakistan's glaciated region, glacial lake outburst floods (GLOFs) pose a significant risk to the people that live downstream. Because of unstable moraine "dams," the glacial lakes that are held back by them-known as "Glacial Lake Outburst Floods"—may unexpectedly burst. This is because the glacial lakes are held back by moraines or the ice core of retreating glaciers. Between Gilgit and Sost, on both sides of the Hunza River, are remains of a catastrophic rockslide, whose original volume probably exceeds 500 x 106 m^3.

Environmental Settings

The Karakoram Highway (KKH), completed in 1979, is the only overland route connecting the People's Republic of China with the Islamic Republic of Pakistan. The original motives for this ambitious project were both strategic and economic. The route runs from the Pakistan lowlands below 1000 meters, across the Khunjerab Pass (about 4500 meters), into the Chinese Autonomous Region of Xinjiang. The upper portion of the KKH crosses one of the most dynamic mountain ranges on Earth by following the valley of the Hunza and Khunjerab rivers (E Derbyshire & Miller, 1981). It traverses various morphoclimatic zones, ranging from highly arid valley floors to glacial and periglacial conditions on the mountain peaks such as Rakaposhi (7821 m). The Karakoram Mountains lie immediately to the north of two major geological structures, the Indus (or Sha-

yok) and northern sutures, that mark the closing of the Tethys and the collision of the Indian and Asian continental plates (Fig. 2). From about 50 Ma ago to the present day, mountain building processes have continued to stimulate growth of the Himalaya to the south and the Karakoram Mountains to the north (Searle, 1991). In the western Himalayas, the uplift rate has been estimated to be about 1 cm/year (Zeitler, 1985), ten times the average rate for the Himalayan Range. This, together with rapid glacial and fluvial incision, has resulted in deeply incised valleys and some vast valley fills that are relatively easily examined in field sections. In the Hunza and Khunjerab valleys, the main structural grain trends WNW-ESE with the major formations mimicking this trend (Fig. 3). For most of its length, the KKH, therefore, runs approximately perpendicular to both the structural and lithological trends. The KKH crosses four major geological terrains (Searle, 1991). The Karakoram Sedimentary Series (in the north), the Karakoram Batholith, the Karakoram Metamorphic Complex; and (in the south) the Chalt Green Schist Zone. The Karakoram Sedimentary Series comprises highly jointed and locally deeply weathered Palaeozoic and Mesozoic slates, limestones, and dolomites. Cryogenic weathering dominates these lithologies to produce cliffs surmounted by long scree slopes (Edward Derbyshire et al., 2001). The Karakoram Batholith (Tertiary in age) consists mainly of granodiorite but includes diorite and granite. The batholith is deeply incised to form steep cliffs that exhibit impressive cavernous weathering forms (Whalley, 1984). Salt crystal growth and cryogenic processes dominate the weathering throughout this zone. The Karakoram Metamorphic Complex includes gneiss, schist marbles, phyllites, pelite and amphibolite's, greenschist, agglomerates, and tuffs (Windley, 1983).

The Karakoram Highway traverses one of the Earth's most quickly climbing mountain ranges. It is in extremely high geodynamic activity due to a combination of earthquakes, glacial erosion, river incision, periglacial action, and an unpredictably significant input of monsoonal rains. Since it was finished, the Karakoram Highway has seen damage and interruption from rockfall, sliding rock and debris, debris flow, mudflow, dry powder flow, flash flooding by water and stream gravels, basement undermining by abstraction, subsidence, and frost heaving (Kron et al., 2021). The road surface frequently sustains damage from rockfall impact, flooding, and frost breaking. A rigorous hazard study was carried out over a more than 200 km radius from the Khunjerab Pass (Pak-China boarder) to Gilgit. The debris flows and landslides were evaluated using field mapping and gravimetric techniques. The largest significant risks include meltwater streams from some massive glaciers and semi-continuous mass movements on steepened cliffs of uncemented late-Pleistocene till. Talus fan sliding and alluvial and mudflow fan progradation are the most frequent risks (Edward Derbyshire et al., 2001).

Problem Statement

Gilgit-Baltistan is in one of the snow-packed zones of the world, including Hindukush, Karakoram, and the Himalayas. Due to an average rise in the world's

temperature and the active zone of the MKT (Main Karakoram Thrust), natural hazards like flash floods, glacial lake outburst floods (GLOFs), and landslides have recently become more frequent and intense in the HKH region. The glaciers in Pakistan are thinning off at a rate of 40–60 m every ten years due to the rapidly changing climate. The amount of water in the glacier lakes is rising because of these glaciers' melting. The Gilgit-Baltistan and Chitral basins are also dealing with the effects of climate change in the form of rapid glacier mass melting, lake expansion and lake creation, which poses a risk for glacier Lake Outburst Floods to the communities below. These hazards have severely affected the region for centuries, and damage was recorded in terms of lives, property, and other infrastructures. Some examples the past floods and GLOFs are the 1835 floods in Shyok River, the 1905 GLOFs of Karumber and Shimshal Rivers and the recent records flashflood of July-August of 2010 and July 2020. Huge damages were recorded throughout Pakistan. In the Hunza and Gilgit River basins of the Karakoram and Hindu Raj Ranges, recent investigations have found at least 79 rockslide-rock avalanche episodes (Fig. 1). At high elevation in glacier basins, several have happened in the previous 150 years, and two episodes have happened in the last 15 years. Most instances, however, were rebuilt from sediments that were essentially old. They were all late Quaternary post-glacial events since they almost all fell onto the bottoms of ice-free stream valleys. They were located using sediment samples and field research, with the aid of satellite imaging analysis. Rockslide-rock avalanches (Telssturz-Sturzstrom5 events) derive from sudden rock wall failure or collapses involving millions of cubic meters of bedrock (Hewitt, 2001). Typically, a steep slope of several hundred meters will result in the rock being thoroughly fractured, crushed, and ground into a fine powder. As a result, dry rubble runs out quickly.

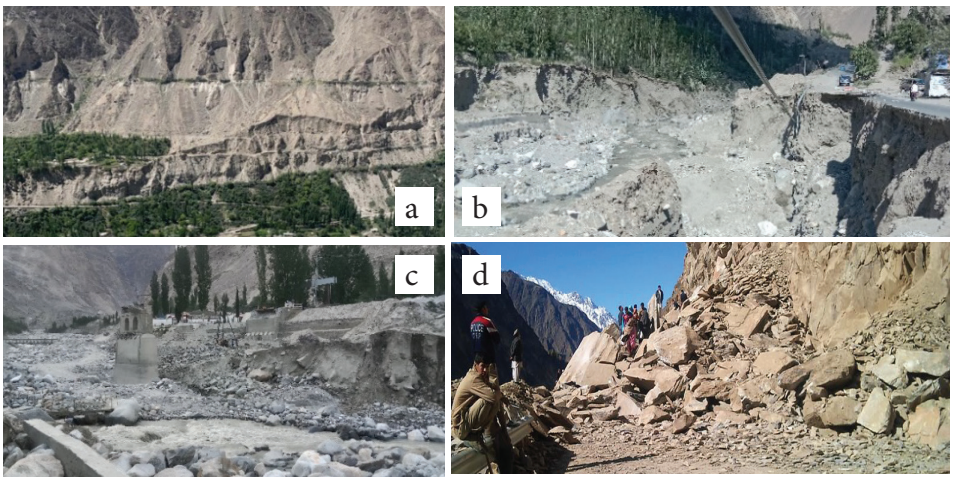


Figure 2. The picture shows **a).** Landslide near Nasirabad Hunza **b).** The Shisper Glacier Lake Outburst Flood (GLOF 7th May 2022) eroded KKH in Hassanabad Valley. (Source: a, b, and c by Dr. Garee Khan, d. Internet source).

Study Area

The 300-km Karakoram Highway buffer defines this study region. It travels from Gilgit to the Khunjerab Pass, close to the Chinese border. It is situated in the western portion of the India-Asia collision-induced Karakoram-Himalayan orogenic belt. Mountain glaciers are a significant part of the ecology around the roadway because they cause significant rock avalanches and glacial debris flows. The KKH's topography, which ranges in elevation from 1280 to 6961 m, is characterized by deep valleys and rough mountains. Deep, narrow river valleys result from strong tectonic processes and quick uplift, which provide dynamic conditions that encourage the development of geological disasters. As a result, the KKH is frequently affected by geological disasters like mudslides, landslides, and flash floods that cause significant damage to the KKH.

Objectives

The proposed study will assess the risks and vulnerabilities of the natural hazards along the CPEC route. The main objectives of the program are as below.

- To indicate and assess the degree of risk and mitigate hazards.
- To increase the public institutions' technical and human capacity to comprehend and respond to the urgent risk posed by the different mountain hazards along the KKH.
- Reducing Risks and Vulnerabilities from natural hazards.
- To help the local, vulnerable communities in Gilgit-Baltistan better comprehend and adapt to mountain dangers to cope with the increasing strain from climate change.

Benefits

The expected benefits of the program are.

- Capacity building of the local community and relevant stakeholders
- Reduction of material and human losses due to mountain hazards
- Safety of agricultural land, forestry, livestock, and biodiversity
- Enhance the response capacity of the local community.
- Developed the preparedness level of the community and stakeholders.
- Reduction of risk both through the physical and non-physical mitigation
- Adaptation of the community to the existing risks
- Ultimate sustainable development

Policy Framework and Guidelines to Address Mountain Hazards Risk

An interagency working group will be established to integrate climate change risk management considerations into future laws and current disaster management policy frameworks. To add mountain hazards and climate risk variables, update the National Disaster Risk Management Plan and then submit it for NDMA approval. At the district and neighborhood levels, create and institutionalize comprehensive mountain hazard risk management standards, especially for individuals at risk from mountain hazards.

Strengthening Knowledge and Information about Risks

Interaction with the Global and Regional Research Centers Working on Mountain Hazards Issues

To assess the state of knowledge on the consequences of glacial melt and related flooding patterns in the Himalaya-Hindukush region, establish cooperative relationships between national and local disaster management agencies and specialized research institutions, including NDMA, NIDM, and GBDMA. The organizations that KIU may like to work closely with.

1. National Disaster Management Authority (NDMA)
2. Pakistan Metrological Department (PMD)
3. Global Change Impact Study Centre
4. Pakistan Council for Research on Water Resources
5. Institute of Geographical Information System
6. ICIMOD

Hazard & Risk Mapping of CPEC Route

The first step would be obtaining information about the CPEC route using remote sensing and GIS, then listing the risk categories. Community members and other stakeholders will be consulted to determine the vulnerabilities in areas at high risk for disasters and to determine the technological, natural, human, and social resources that are already available. Creation of comprehensive vulnerability and risk maps (fusing livelihood sensitivity and risk exposure).

Community-Based GLOF Risk Management in Vulnerable Mountain Valleys

Early Warning System

The existing flood early warning systems will be installed in the target locations along KKH to continuously transmit flash warning signals. Threat detection (sensor), warning stations, and relay stations are intended to be included in the EWS design.

i. GLOF watch advisories published in print and electronic media by Pakistan Metrological Department (PMD) for communities in danger.

ii. Establishment of an SMS message system to send alerts to government agencies, neighborhood NGOs, and community-based organizations (CBOs).

iii. Establishing a central voice response system will allow consumers to access flood risk information by phone or mobile call whenever they choose day or night.

iv. Community-level, real-time mock drills that imitate a GLOF disaster and test the EWS's functionality.

Selected local community and NGO members will receive training in the calibration, use, and maintenance of the sensor equipment that PMD has deployed at the target sites.

Community-Based Mitigation

Potential flood threats can be reduced using a variety of methods. The reduction of the likelihood of a lake flood is the main goal. Combining these methods with EWS-based procedures downstream is crucial because coordinated actions to safeguard life and property in the downstream area must also be performed. The most frequent structural mitigation strategies aim to lessen the lake's water level. The most efficient mitigation strategy is to reduce the lake's water level, which should lower both the projected peak surge discharge and the hydrostatic pressure on the moraine dam. Various approaches can be employed singly or in combination to accomplish this.1. Controlled breaching of the moraine dam

i. Building a building to restrict outlets.

ii. Pumping or syphoning water out of the lake.

iii. Tunneling under an ice dam or through the moraine barrier.

Community-Based Hazards Risk Assessment, Monitoring, and Early Warning System

- Create a network of local government and community organizations for early warning communications, using various communication channels such as the phone, cell phone, and SMS.
- Create a centralized early warning and response center that continuously receives and relays alerts over the phone.
- Develop and build the technical elements of a successful EWS, including hazard sensors, relay stations, warning signal installations, and a low-tech backup system to reduce technological hazards.
- At least one real-time GLOF simulated drill is carried out annually to check the effectiveness of the EWS and make any necessary adjustments. The use and care of it are covered in staff training.

Capacity Building

Training Awareness Sessions

- Inform end users/farmers at the local level in Gilgit-Baltistan and Chitral about the Pakistan Meteorological Department's climatic advisories.
- Arrange for district and local level authorities in Gilgit-Baltistan and Chitral to attend workshops and seminars on GLOF readiness and risk mitigation strategies.
- Engage in awareness-raising initiatives for the communities of Chitral and Gilgit-Baltistan, such as publishing newspaper articles, radio programs, localized posters and brochures, and regional consultations.
- Include awareness-raising initiatives for women and vulnerable populations (such as children, the elderly, and people with disabilities) in all communication efforts to lessen disproportionate vulnerabilities and guarantee the measures.

Identification of Safer Areas

- Hazard and risk maps already developed will be used to check the prevalent hazards downstream and prioritize the safer areas.
- Safer areas will be identified by considering all the hazards and risks in the surrounding areas.
- Safe havens will be identified within the safer zones, which will be used in case of any disaster to accommodate the affected community.

Safe Exit Routes

Through community participation using hazard and risk maps of the target villages, exit routes will be identified and marked on the map for safer evacuation in case of any disaster, so the risk of damage to lives can be reduced.

Mitigation Measures Downstream

In addition to the mitigation at the glacier and lake, downstream mitigation for the community is imperative to reduce the risk of flood in the case of GLOF. Several techniques and methods are used to minimize the existing threat, some of which are as follows.

Tunneling

Tunnels can be constructed to keep the road safe from rockfall and debris flow.

Retaining Walls

Due to road construction slope could be unstable, and there is the probability of slope failure and rock slump on the road. To avoid such hazards retaining walls can be constructed.

Channelization

Due to several flood events along the specific stream or river, the aggradation of the river/stream occurs due to a sudden decrease in the gradient. Excavation of the debris material can be done to increase the capacity of the stream to accommodate both massive and regular floods to reduce the risk of overflowing towards the settlements.

Check Dams

Depending on the ground situation and feasibility, several options can be utilized to reduce the risks. Check dams are one of the methods to check the debris material brought by the GLOFs or floods.

Gabion Wall/Diversion Spurs

Gabion walls are used to fall where there is a sharp turning of the stream change of overtopping towards the settlements. In the case of meandering river diversion, spurs are feasible to reduce erosion or to cut by the flood.

Suggested Citation

Baig, S.S., Khan, G, Alam., M. (2023). Geological Hazards along the CPEC route from Gilgit to Khunjerab. In *Silk Route Revisited: Essays and Perspectives on the China-Pakistan Economic Corridor and Beyond* (pp.212-227). CSC-KIU.

References

Abbas, H., Hussain, D., Khan, G., ul Hassan, S. N., Kulsoom, I., & Hussain, S. (2021). Landslide inventory and landslide susceptibility mapping for china pakistan economic corridor (CPEC)'s main route (Karakorum Highway). *Journal of Applied and Emerging Sciences, 11*(1), pp 18-30.

Ali, S., Biermanns, P., Haider, R., & Reicherter, K. (2019). Landslide susceptibility mapping by using a geographic information system (GIS) along the China–Pakistan Economic Corridor (Karakoram Highway), Pakistan. *Natural Hazards and Earth System Sciences, 19*(5), 999-1022.

Baghel, R., & Nüsser, M. (2015). Securing the heights: The vertical dimension of the Siachen conflict between India and Pakistan in the Eastern Karakoram. *Political Geography, 48*, 24-36.

Bruce, J. P. (1994). Natural disaster reduction and global change. *Bulletin of the American Meteorological Society, 75*(10), 1831-1835.

Butt, M. J., Umar, M., & Qamar, R. (2013). Landslide dam and subsequent dambreak flood estimation using HEC-RAS model in Northern Pakistan. *Natural Hazards, 65*, 241-254.

Derbyshire, E. (1996). Quaternary glacial sediments, glaciation style, climate and uplift in the Karakoram and northwest Himalaya: review and speculations. *Palaeogeography, Palaeoclimatology, Palaeoecology, 120*(1-2), 147-157.

Derbyshire, E., Fort, M., & Owen, L. A. (2001). Geomorphological hazards along the Karakoram highway: Khunjerab pass to the Gilgit River, northernmost Pakistan (Geomorphologische hazards entlang des Karakorum highway: Khunjerab Paß bis zum Gilgit River, nördlichstes Pakistan). *Erdkunde*, 49-71.

Derbyshire, E., & Miller, K. (1981). Highway beneath the Ghulkin. *The Geographical Magazine, 53*(11), 626-635.

Derbyshire, E., & Owen, L. A. (1990). *Quaternary alluvial fans in the Karakoram Mountains.* Paper presented at the Alluvial fans. A field approach.

Goudie, A. (1984). The geomorphology of the Hunza valley, Karakoram mountains, Pakistan. *The international Karakoram project, 2*, 359-410.

Hewitt, K. (1989). The altitudinal organisation of Karakoram geomorphic processes and depositional environments. *Z. Geomorph. NF Suppl., 76*, 9-32.

Hewitt, K. (2001). Catastrophic Rockslides and the Geomorphology of the Hunza and Gilgit River Valleys, Karakoram Himalaya (Katastrophale Bergstürze und die Geomorphologie der Hunza und Gilgit Flusstäler, Karakorum Himalaja). *Erdkunde*, 72-93.

Hussain, S. H., Sadiq, S., & Latif, M. (2010). Post disaster threats in atta abad and adjacent areas, hunza valley, gilgit-baltistan.

Kardon, I. B., Kennedy, C. M., & Dutton, P. A. (2020). China Maritime Report No. 7: Gwadar: China's Potential Strategic Strongpoint in Pakistan.

Khan, A., Shitao, Z., & Khan, G. (2022). Comparative analysis and landslide susceptibility mapping of Hunza and Nagar Districts, Pakistan. *Arabian Journal of Geosciences, 15*(21), 1644.

Kreutzmann, H. (2006). Karakoram in Transition. *Culture, development and ecology in the Hunza Valley*.

Kron, W., Tingsanchali, T., Loucks, D. P., Renaud, F. G., Bogardi, J. J., & Fekete, A. (2021). Water-related hazard and risk management. In *Handbook of Water Resources Management: Discourses, Concepts and Examples* (pp. 675-734): Springer.

Kulsoom, I., Hua, W., Hussain, S., Chen, Q., Khan, G., & Shihao, D. (2023). SBAS-InSAR based validated landslide susceptibility mapping along the Karakoram Highway: a case study of Gilgit-Baltistan, Pakistan. *Scientific reports, 13*(1), 3344.

Lilly, M., Brown, J., Thornley, J., Tahirkheli, S., Eitler, M. A., Levine, K., . . . Fu, L. (2021). *The Permafrost Monthly Alert (PMA) Program: Improving International Access to Permafrost Literature in Engineering and Science.* Paper presented at the AGU Fall Meeting Abstracts.

Maqsoom, A., Aslam, B., Khalil, U., Kazmi, Z. A., Azam, S., Mehmood, T., & Nawaz, A. (2022). Landslide susceptibility mapping along the China Pakistan Economic Corridor (CPEC) route using multi-criteria decision-making method. *Modeling Earth Systems and Environment, 8*(2), 1519-1533.

Owen, L., & Derbyshire, E. (1988). *Glacially deformed diamictons in the Karakoram Mountains, northern Pakistan.* Paper presented at the Glaciotectonics: forms and processes. Various meetings of the glaciotectonics work group.

Searle, M. P. (1991). Geology and tectonics of the Karakoram Mountains. *(No Title)*.

Walker, L. R., & Shiels, A. B. (2012). *Landslide ecology*: Cambridge University Press.

Wang, H., Sassa, K., & Xu, W. (2007). Analysis of a spatial distribution of landslides triggered by the 2004 Chuetsu earthquakes of Niigata Prefecture, Japan. *Natural Hazards, 41*, 43-60.

Whalley, W. (1984). Rock temperature observations and chemical weathering in the Hunza region, Karakoram: Preliminary data. *The International Karakoram Project., 2*, 616-633.

Windley, B. F. (1983). Metamorphism and tectonics of the Himalaya. *Journal of the Geological Society, 140*(6), 849-865.

Zeitler, P. K. (1985). Cooling history of the NW Himalaya, Pakistan. *Tectonics, 4*(1), 127-151.

Zhao, F., Meng, X., Zhang, Y., Chen, G., Su, X., & Yue, D. (2019). Landslide susceptibility mapping of karakorum highway combined with the application of SBAS-InSAR technology. *Sensors, 19*(12), 2685.

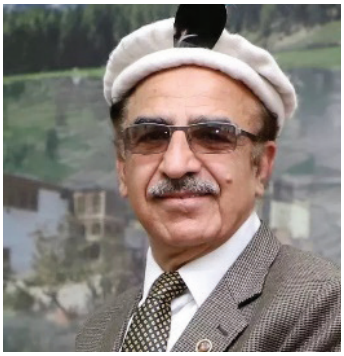
Zimmer, V. L., & Sitar, N. (2015). Detection and location of rock falls using seismic and infrasound sensors. *Engineering Geology, 193*, 49-60.

About the Editors

Faqeer Muhammad is currently working as Director of China Study Centre at Karakoram International University, Gilgit-Baltistan. He has 19 years of teaching and research experience at Public University in Pakistan. He holds a PhD in International Trade from Jiangxi University of Finance and Economics, China. He also holds an MA degree in Economics from University of Karachi and MS degree in Economics from the Dalarna University, Sweden. His areas of research interests are trade, tourism, financial development, and energy. Dr. Faqeer has attended several academic conferences in China and Pakistan.

Saranjam Baig is currently working as an assistant professor at the College of Economics and Political Science, Sultan Qaboos University, Muscat, Oman. He also teaches at the Department of Economics, Karakoram International University, Gilgit-Baltistan. Previously, he has also taught in the Unites States. His research has been published in reputed academic journals. His areas of research interest are political economy, public policy, governance, CPEC and BRI.

Khalid Mehmood Alam is currently working as an assistant professor in the China Study Centre, Karakoram International University, Gilgit-Baltistan. He holds a PhD in Applied Economics from Beijing Jiaotong University, China. He did M.Sc. in Economics from Quaid-i-Azam University Islamabad, Pakistan. Dr. Alam has actively participated in research and published several research articles in international journals. His areas of research interests are Transportation Economics, CPEC, BRI, and Economic Development.



Attaullah Shah is a leading researcher, educator, and practitioner with 35-year senior/executive level diverse experience in the fields of Academic leadership, Project design & management, teaching and research, public connectivity and high-performance team building in higher education across public and private sectors. He has been involved in connectivity with first grade think-tanks and policy makers nationally and internationally to frame dynamic strategies for implementing result driven policies across Pakistan and several other countries. His interest in the China studies has been created mainly due to his close interaction with the faculty and researchers at various Universities of PR China. During his visits to China, he developed strong partnerships with the research institution and Universities for joint research and collaboration. He also writes about the modern technologies and their impact on socio-economic development of the region, with special reference to CPEC and BRI.

About the Contributors

Abid Hussain is a visiting lecturer at the Department of Economics at Karakorum international university Gilgit, Pakistan. He earned his BS (Hons) in Economics from Karakorum international university, MS in Development Economics from International Islamic University, Islamabad Pakistan, and PhD in progress from Karakorum international university, Gilgit. Pakistan. In 2013, he served as a lecturer at The Gilgit College of Commerce and Economics, Gilgit. He is currently employed as visiting lecturer in the Department of Economics at Karakoram International University Gilgit. He has written a book titled; The local government, community mobilization, and living standard, A case study of devolution plan 2001 of Pakistan. As well as he Published more than 7 research papers in national and international journals.

Ajaz ul Haq did his masters in Sociology from University of Karachi back in 2011 and then he got Fulbright scholarship to study in China in 2015. In 2019 Mr. Haq, completed his M.Phil degree in Chinese Language and Culture from Sichuan Normal University China. He has a strong grip in Chinese language as he passed Chinese Language Proficiency Test HSK-6 and Chinese Language Spoken Proficiency Test, HSK-K advance level. He worked with Chinese Consulate Karachi for about 3 years as Chinese Language Interpreter and Assistant Visa Officer. Currently, He teaches Chinese Language to students of BS programs at Karakoram International University, Under the China Study Centre Teaching Chinese Language program since November 2021. Mr. Haq, imparts knowledge, fostering appreciation for Chinese language richness and cross-cultural understanding. Pursuing a PhD at Central South University China, he contributes to Chinese studies. He has vast experience of writing articles related to Chinese and Pakistani cultures and language both in local and Chinese magazines. As an accomplished writer, Mr. Haq, aims to bridge cultural gaps through his publications, promoting dialogue and deeper appreciation for language and culture nuances. His commitment extends beyond the classroom, inspiring others to embrace cultural diversity and the power of language.

Akber Ali is currently working as an assistant professor and Head of Department in the department of Media & Communication Studies, Karakoram International University (KIU), Gilgit, Pakistan. He earned his PhD in Communication Studies from Shanghai University, P.R. China focusing on international communication. He did his master's in media studies from the University of the Punjab Lahore. He is the current head of the department. He has more than 15 years of teaching and research experience. He has authored two book chapters on the China Pakistan Economic Corridor and the Non-Governmental Organizations in Pakistan in the book titled, "The Politically Economy of China Pakistan Economic Corridor' published by the Social Sciences Press China". He has published many academic papers both in national and international journals. Besides, he has worked on various projects including the UNDP, the WHO on environment and public health. His research interests include Intercultural communication, Health communication and Environmental Communication.

Ali Haqiqat, possesses a unique perspective on the profound connection between his homeland and China. Growing up near the Chinese border, Ali's childhood was marked by frequent interactions with Chinese culture and language. Recognizing the immense power of language, he embarked on a remarkable journey despite numerous obstacles, limited resources, and financial setbacks. In 2015, Ali's unwavering determination bore fruit when he was awarded a prestigious scholarship to pursue his passion for Chinese language and culture. He seized the opportunity and excelled in his studies, ultimately earning a master's degree in teaching Chinese Language to Speakers of Other Languages from Beijing Language and Culture University in 2020. A true scholar at heart, Ali conducted extensive research during his academic journey. His thesis, titled "A Research Survey on the Motivation of Pakistani Students Studying Chinese - A Case Study of Pakistani Students at Beijing Language and Culture University," showcased his meticulous approach. The empirical research, employing questionnaires and a micro application of macroscopic theory, focused on Pakistani students studying Chinese in China and explored the impact of their motivation on language acquisition. Ali's research garnered accolades for its profound analysis, systematic methodology, and insightful recommendations, making a significant contribution to the promotion of the Chinese language on a global scale. As an author, Ali is set to captivate readers with his profound understanding of the intricate ties between China and Pakistan, drawing from his personal experiences and rigorous academic pursuits.

Amjad Ali holds the position of Assistant Professor in the Department of Development Studies at Karakoram International University, Hunza Campus. Additionally, he is pursuing his PhD in Economics at the Department of Economics, KIU Main Campus in Gilgit. Mr. Ali is currently serving as a Research Fellow at the Institute of Sustainability Academy (ISA) in Hamburg, Germany. With a focus on the economics of the environment and tourism, particularly in high mountain regions, Mr. Ali has contributed extensively to the field. He has authored 15 research articles published in reputable international journals such as Environment, Development and Sustainability, Geo Journal, Environmental Science and Pollution Research, Irrigation and Drainage, and Journal of Public Affairs. Furthermore, Mr. Ali has actively participated in research and training workshops held in China, Thailand, and Nepal. He has also worked as a lead consultant on various projects related to environmental issues, tourism, and economic development. Notably, Mr. Ali was awarded the SANDEE research grant for the period 2020-2022, showcasing his expertise and dedication in his field of study.

Amjad Ali currently working as assistant professor in department of agriculture and food technology, Karakoram International University Gilgit, Pakistan. Amjad does research in starch-based antimicrobial, environmental edible & biodegradable films. He is also working on the post-harvest shelf extension of life of fruit and vegetables by edible coatings. He has obtained his doctoral degree from the renowned South China University of Technology Guangdong Guangzhou P. R. China. Till now he has published above 25 research articles in international journals as a first author, coauthor and as corresponding author in different jour-

nals having more than 100 impact factors and 900 citations in google scholars. Currently working as a course coordinator in the department of agriculture and food technology.

Ashiq Hussain is currently working as a Visiting Lecturer at the Department of Politics and International Studies KIU. Besides, he is an alumnus of PAIS KIU, and he has done M.Phil. in International Relations. Moreover, he has completed a diploma from alumnus of PAIS KIU, Academy of Sciences under the title Belt and Road international innovation development institute network (ANSO_BIDI 2022). He has also served as Social Mobilizer Forest and Wildlife Department Gilgit Baltistan. Furthermore, he is one of the young emerging syndicated authors of Gilgit Baltistan. So far, he has compiled two books on the antiquity and freedom movement of Gilgit Baltistan and currently he is working on his third book. He has also articulated many journal articles and newspaper articles as well.

Azhar Hussain has completed B.Sc. (Hons) in Agriculture with a specialization in the field of plant pathology at the University of Arid of Agriculture Rawalpindi (UAAR). Then he did a Master of Philosophy in the Department of Biological Sciences Quaid-E-Azam University (QAU) Islamabad with a specialization in Microbiology. During his stay at UAAR and QAU, he was involved in many research projects in the field of agriculture and published research articles and papers. In 2005, he joined Karakoram International University as a Lecturer in the Department of Agriculture and Food Technology. After his inception at KIU, he was deeply involved in teaching and research activities at both undergraduate and graduate levels. He is deeply involved in curricular activities as well as serves as co-curricular activities in-charge in the department. In 2011 he was promoted to assistant professor in the same department and left University for a Ph.D. He got EVK2-CNR Italian scholarship to pursue Ph.D. studies. Dr. Hussain is 1st Ph.D. alumni of Karakoram International University Gilgit. After completion of studies, he rejoined University. He has more than 70 scientific publications published in both National and International journals. So far, he has won seven competitive funding projects worth 13.748 million from HEC, PSF and HRI. Currently, he is working on projects; Disease management through trunk injection delivery system, Indigenous Production technology of morel mushrooms, Biodiversity conservation of high-value medicinal plants through farming as well as an Epidemiological study of Skin fungal Infection of School Children. He also worked as a consultant for the GB Government to develop Gilgit-Baltistan Agriculture and Food Security Policy. Dr. Hussain is also a country representative of the Himalayan University Consortium for Sustainable Mountain Agriculture and is a member of the Pakistan Phyto pathological Society and the Pakistan Botanical Society. Dr. Hussain participated in several National and International seminars/ Workshops/conferences.

Garee Khan has completed his bachelor's program (Hons) in the department of Computer science from Karakoram International University Science. Soon after he was awarded Post Graduate Diploma (PGD) in Geographic Information System and Remote Sensing from the Centre of Excellence in Geology (NCEG),

Peshawar. In 2017 he has completed his Ph.D. degree from Xinjiang Institute of Ecology and Geography (XIEG), Chinese Academy of Sciences, Beijing China. Since 2018 he has been serving as an Assistant Professor in the Department of Earth Sciences, Karakoram International University, Gilgit 15100 Pakistan. Being a faculty and a research scholar at KIU he has been taken a keen interest in research activities more particularly in Spatial modeling, Assessment of Natural Hazards, Climate Change impact on natural resources such as hydrology, Glaciers, and agriculture pattern, GIS/RS application for natural resource management, etc. He has been able to Principal investigator (PI), Co-principal Investigator (Co-PI), and author/co-author a number of scientific articles, and contributed in two book chapters, mapping for a field guide, as well as developed maps, brochures, fact sheets, posters, and wall charts on different themes and sustainable use topics for different target groups as awareness/educational material. He has supervised thesis and dissertation research of BS/MS Geology students, KIU on topics of common interest and value. His research approach emphasizes the need for interaction between modeling, analysis, scientific analysis withGIS/RS applications.

Hassan Daud Butt is serving as Associate Professor at Bahria University, Islamabad, and Advisor on China & Blue Economy at SDPI. He was the former Project Director CPEC. He also worked on HEC CPEC vision 2030 and university to university ALLIANCE with China. He was the project CEO Khyber Pakhtunkhwa Board of Investment & Trade (KP-BOIT), SEZA and the Focal Person for the Ease of Doing Business (EoDB) initiative of the Khyber-Pakhtunkhwa Government.

Junaid Alam Memon is a Professor of Development Studies at IBA Karachi and the current director of the Center for Business and Economic Research (CBER). He has a Ph.D. in Regional and Rural Development Planning from the Asian Institute of Technology, Thailand. For the last two decades, he has been studying the society-natural resources nexus, encompassing land, ground and surface water, forest, and energy resources with community and marginalized groups' participation as the cross-cutting theme. He has published in top academic journals in the field including but not limited to Environmental Management, Environmental Science and Policy, Environment, Development and Sustainability, and Energy Policy.

Kifayat Ullah has been a faculty member in the Department of Economics at Karakoram International University Gilgit (KIU) since 2004. He obtained his master's degree in economics from University of Karachi and MS Economics from the International Islamic University (IIU) Islamabad with distinction. He has completed his PhD degree in Economics from Pir Mehr Ali Shah Arid Agriculture University Rawalpindi (PMAS-AAUR), Pakistan. He has been awarded 'Best University Teacher Award from Higher Education Commission (HEC), Pakistan in recognition of his contribution to the teaching and research field. Dr. Ullah's primary areas of interest are Applied Economics, Development Economics, Environment, and Natural Resource Economics, Tourism Development and Management, Energy Economics and Financial Economics which is evident from

his research publications in these fields at various reputed national and international journals. Dr. Ullah is also a reviewer of several reputed National and International journals. He has been actively participating in national/international conferences and seminars.

Masroor Alam is working as a lecturer in the department of Earth Sciences Karakoram International University Gilgit. He did his PhD from Department of Earth Sciences and resources China University of Geosciences Beijing. His research interests are mineralogy, petrology, and mineral deposits with focus of gold deposits in Pakistan and China. He is also interested in studies related to climate change induced geological hazards such as GLOF, debris flows, landslides, flash floods etc.

Muhammad Idrees is a lecturer at the Department of Economics at Karakoram International University Gilgit, Pakistan. He earned his MSc in Economics from Karakoram International University, MS in International Political Economics from COMSATS University, Islamabad Pakistan, and a PhD Scholar at Karakoram international university, Gilgit. Pakistan. He has published research articles in national and international journals.

Muhammad Ismail is a Visiting Lecturer at Department of Politics and International Studies in Karakoram International University Gilgit, Pakistan. He earned his BS (Hons) in Politics and International studies from Karakorum International University Gilgit and an M. Phil in Political Science from the Federal Urdu University of Arts, Science, and Technology in Karachi. In 2018, he served as a Lecturer at Ideal Grammar Degree College in Karachi. He is currently employed as a Visiting Lecturer in the Department of Politics and International Studies at Karakorum International University Gilgit (DPIS). He has written a Book titled: China-Pakistan Economic Corridor (CPEC): A Case Study of Strategic-Economic Implications for Pakistan which is in publication process. As well as he Published more than ten research papers in national and international journals, he has also written at least one hundred Columns and features for local and national newspapers.

Nighat Moin is a Senior Faculty & Cluster Head (Economics) in the Management Studies Department at Bahria Business School, Bahria University-Karachi Campus. She has served as a permanent faculty member in various esteemed Universities of Pakistan named Jinnah University for Women, Dadabhoy Institute of Higher Education, Indus University, Karachi University Business School (KUBS), Hamdard University-Karachi since 2003-Date as faculty member in the subject of Economics. Her academic qualifications include MS (Economics) and she is currently pursuing a PhD (Management Sciences) from the University of Karachi. She has produced almost 18 research articles in National and International HEC recognized research journals and presented many research articles in National and International HEC recognized conferences. She is also a certified member of National Testing Service (NTS), Headquarter-NTS, Islamabad, Pakistan since 2012 as subject expert of NTS content bank. Having interest of research in area of Economics Development, Business, Employees Retention,

Public Policies and Education.

Sher Sultan Baig, currently working as Assistant Professor at Department of Earth Sciences, Karakoram International University Gilgit-Baltistan Pakistan. He has perceived his PhD from Kunming University of Science and Technology Yunnan China. His research focuses on Geological evolution of Karakoram Mountains. He has carried out extensive geological mapping and reported oldest rock from Karakoram dated 150 million years and published in Lithos.

Sartaj Ali has been holding a PhD degree in Food Science & Technology and serving the Karakoram International University (KIU) since 2003. He has previously served as Food Processing Expert in Aga Khan Rural Support Program (AKRSP) in whole apricot drying. He was responsible for training the farming community to produce export-quality dry apricot from Hunza and Nagar region, Gilgit-Baltistan. He has served the Ministry of Science & Technology as Scientific Officer for three years at PCSIR Skardu (2000-2003) and was involved in product development and entrepreneurship training for the farming community. His areas of interest are postharvest technology, product development, food composition, and food entrepreneurs. He has more than 35 publications and a US patent on his credit, along with one book, some book chapters and two manuals in press. He is also a member of the Pakistan Society of Food Scientists and Technologists (PSFST). He has won competitive funding projects from PSF and HEC and is currently working on two projects with four MS and one Ph.D. student. He also provides community services in food processing, preservation, and product development to promote small-scale food businesses in the region. He has served KIU as the founder head of Department of Agriculture and Food Technology, Assistant Faculty of Sciences, Director Academic Planning & Review and currently as Chairperson of the department.

Tahir Mahmood is working as professor of economics on A.G. N. Kazi memorial Chair of State Bank of Pakistan at Karakoram International University, Gilgit. He previously held the position of associate professor at Quaid-i-Azam University's school of economics. His post-Ph.D. research and teaching career spans 12 years. Macroeconomic dynamics and energy economics are his main research areas. He has served as the thesis advisor for two PhD theses and over 35 MPhil theses in the field of macroeconomic dynamics and energy economics. He has published several papers and completed national and international projects. In 2006, he earned a master's degree in economics from Denmark's Aarhus University. In 2011, he earned a PhD in economics from the University of Eastern Finland. "Sector Dynamics, Labor Productivity and Economic Growth in Europe" is the title of his PhD thesis. The primary goal of this thesis was to examine the long-term relationships between sector-level dynamics (i.e., those in the agricultural, industrial, and service sectors) and increases in labor productivity in the Schengen area.

Urooj Aijaz is an Economist by education and currently serve as a Managing Director IRP and as a faculty at Bahria University Karachi. She is also heading

(a subsidiary unit of media and broadcasting committee of FPCCI) as a Managing Director of WIO. She is appointed as the National Coordinator of Blue Economy (2018 till date). She is a Member of the National Advisory Board of Innovation and Member of Health & Education Committee of Karachi Chamber of Commerce & Industry. She is also working as a member of the water resource management committee of FPCCI. She is a regular writer and researcher having more than 100 publications in reputed journals and popular press focusing Economy, Blue Economy, Academia Industrial Linkage, promotion of entrepreneurial culture and social sciences. A book titled, Mapping Academic Response to COVID-19 is also on her credit.

Wajid Ali has a Baccalaureate degree with honors in Political Science and English Literature from Forman Christian College, Lahore, and a MPhil degree in Public Policy from PIDE (Pakistan Institute of Development Economics) in Islamabad. Currently, he serves as a Monitoring and Evaluation (M&E) Officer at the Forest, Wildlife, and Environment Department in Gilgit-Baltistan. His role involves assessing and analyzing the effectiveness of various projects and initiatives related to forestry, wildlife, and environment management, with a focus on governance and institutions. Wajid Ali's research interests encompass areas such as stakeholder analysis, tourism governance, environmental policy, and climate change.

Zaigham Ali is an esteemed academic professional currently serving as an Associate Professor and Head of the Department of Management Sciences at Karakoram International University's (KIU) main campus in Gilgit. With a Master of Science degree from the University of Bradford in the UK and a Doctorate from Dalian University of Technology in China, he has acquired a solid educational foundation. Dr. Ali's research focuses primarily on project management, project governance, and project sustainability. His expertise in these areas is evident through his numerous research papers published in reputable national and international journals. His contributions to the field have significantly advanced knowledge and understanding in project-related disciplines. With an impressive teaching career spanning two decades at KIU, Dr. Ali has honed his instructional skills and become a highly respected mentor to countless students. His passion for education extends beyond the confines of the university, as he has also served as a research associate at the University of Oregon in the USA. During his tenure there, he actively participated in various conferences and training sessions, ensuring that his knowledge and expertise remained at the forefront of his field. Dr. Ali is a certified trainer for esteemed organizations such as the International Finance Corporation (IFC) and YES (Youth Employability Services). Leveraging his extensive experience, he conducts diverse training programs on entrepreneurship and general management for various organizations. Through these initiatives, he helps individuals and businesses develop crucial skills necessary for success in the modern professional landscape.

Zia Ud Din has been a permanent faculty at the Directorate of Education (Colleges), Gilgit-Baltistan since January 2007. Before joining as lecturer in Eco-

nomics at Government Boys Degree College Skardu in July,2022. He taught Economics at Different Govt. Colleges in Gilgit-Baltistan, spanning from Higher Secondary to BS levels. Currently, Mr. Zia Uddin is pursuing his Ph.D. Degree in Economics from Karakorum International University (KIU). Prior to his Ph.D. studies, he completed his M.Phil. Degree from the Applied Economics Research Center (AERC), University of Karachi. Furthermore, He obtained his master's degree in economics and B.A. (Honors) from the esteemed Department of Economics, University of Karachi.

The China Study Centre (CSC) at Karakoram International University (KIU) is funded by the Higher Education Commission (HEC), Government of Pakistan, which frames the core objectives to value the foreseeable consequences of the establishment of this Center with special reference to the benefits that will achieve from creating a social space, which facilitates to study and research on diverse arts, culture, history and polity of China, GB-Pakistan and surrounding mountainous region. Hence, there is a deep understanding that the study or promotion of culture, history, society and polity is a shared objective of proposed China Study Centre at KIU and other partner institutions.

The establishment of centre aims to provide a base to learn not only Chinese society, but a window of opportunity to take advantage of this platform via developing research collaborations in Xinjiang and mainland China. These collaborations are key to conduct research with high relevance to GB. As referred above that, historically the GB (Pakistan) and Xinjiang (China) offer much in common to share, which includes languages, heritage sites, oral and documented traditions, religious traditions, socio-political and economic pacts, ethnography mapping of mountain communities, cultural diplomacy, etc. The commonalities of these wide range areas are significantly important to consider as an opportunity for collaboration between KIU, Chinese Universities and beyond.

Price: PKR1200/-

978-969-23900-1-9