

China Pakistan Knowledge and Research Corridor

China and Pakistan are time tested friends with shared boundaries, culture and history dating back to the ancient silk route. The two countries have always stood for inclusivity, peaceful co-existence and sustainable growth in the region. While inaugurating, the China Pakistan Economic Corridor, President Xi-Jinping, said:” *Friendship between China and Pakistan is based on trust and mutual support, and we have been devoted friends through both good and hard times. Our friendship is a pacesetter for amicable relations.....*” The unwavering support of China to Pakistan’s stance on Indian Occupied Kashmir, Chinese Foreign Direct Investment (FDI) and the enormous allocation of resources to China Pakistan Economic Corridor as part of One Belt One Road (OBOR) Initiative of President Xi, now called Belt and Roads Initiative (BRI) are some of the major dividends of this friendship. To restrain the hegemonic and expansionist designs of the India and Narendra Moodi led BJP Government, the need for this partnership has further intensified in last few years.

These initiatives call for strengthening the regional development strategies through a robust and global trade network. The road networks at regional and global levels are strengthened with three major systems namely Yangtze River Economic Belt, Silk Road Economic Belt and 21st Century Maritime Silk Road. The principal and strategic component of this network is CPEC which is part of 21st Century Maritime Silk Road. The multibillion USD mega projects under CPEC are destined to usher a new era of

economic prosperity and peace in the region. These mammoth projects in the energy sector, strengthening of physical and telecommunication networks, upgradation and strengthening of Gawadar port and establishment of Export Promotions Zones across Pakistan, are collectively called the “*Destiny Changer*” in the region. The dividends of the first early harvest phase of CPEC have already created trickle-down effects to the masses in Pakistan.

With huge investment of Chinese Government in Research and Development, today more than 100 Chinese Universities are placed in the global best 500 Universities of the world, according to Times Higher Education Ranking (2021), Shanghai Jiao Thong Universities ranking (2020) and US News and World Report (2020). According to QS Ranking, the top 9 Chinese Universities include Tsinghua University, Peking University, Fujian University, University of Science and Tech China, Zhejiang University, Shanghai Jiao Thong University, Nanjing University, Sun Yat Sen University, Wuhan University, Harbin Institute of Technology, Xian Jiao Thong University. The academic and research collaboration between China and Pakistan have witnessed impressive growth in last few decades, in the areas of graduate studies, joint collaborative research, research funding, exchange programs, short term placement of students and faculty, organizing Conferences, Seminars and workshops etc. While looking at the significance of intellectual and knowledge connectivity, alongside the physical routes, Higher Education Commission has timely established the CPEC center at its headquarter. Under the aegis of this initiatives, a consortium of CPEC Universities has been created, which is comprised of more than 50 Universities now. HEC submitted a series of PC-1s for establishing Knowledge and Research Corridor between the two countries. The two important projects, have started its work, China Pakistan Joint Research Centre at Quaid-e- Azam University and Academic Collaboration under CPEC consortium Universities. In the former mega project, three centers will be established with main seat at QUA for earth Sciences, Labs for Cryosphere and Climate Studies at Karakoram International

University Gilgit and Marine Sciences Labs at Marine University Karachi.

The objectives of the project for establishing collaboration amongst the CPEC Consortium Universities include:

- a. Study the geo-strategic and geo-economic dimensions of the Chinese Belt and Road initiative and CPEC to understand their long-term impact on Pakistan.
- b. Develop mechanisms to fully exploit the opportunities arising out of the China's appetite for global talent, and facilitate absorption of their graduates by Pakistani economy.
- c. Support higher education institutions (HEIs) in the development of human resource to implement CPEC Long Term Plan.
- d. Develop capacity of Pakistani universities for providing policy inputs to the government on the challenges emerging in the wake of implementation of CPEC Long Term Plan.
- e. Develop an understanding of Chinese history, culture and governance system that has created the Chinese miracle, while drawing lessons for own development.

The various components of this knowledge and research collaboration are summarized below:

- i. Joint Research:* For implementation of these strategies, HEC has proposed some of the way forward like Joint research on selected themes of joint interest, which can include Climate Adaptation, Sustainable Mountain Development, Food Security, Urban Planning, Water Resource Management, Supply Chain Management, IT Entrepreneurship, Medicinal Plants, Gemstones and Mineral resource management etc.
- ii. Talent Cultivation and Training:* This component mainly focuses on the capacity building of faculty to strengthen the academic and intellectual relations. About 400 faculty

members will be trained under this component both at Pakistan and China

- iii. Post-doctoral research:* Post-doctoral research and trainings provide ample opportunities to faculty for exchange of latest knowledge, research and technologies. About 30 faculty member (15 on each side) will be provided with the opportunities for such research.
- iv. Short Term Trainings:* Due to shortage of qualified PhD faculty in the newly established Universities in Pakistan, it may not be affordable for them to place most of the faculty on PhD studies or Post Doc research. Hence a window of short term placement of 150 faculty and staff for short term trainings of 2-3 weeks will be provided
- v. Dual degree programs between Chinese and Pakistani Universities:* For internationalization of Universities in Pakistan, one option can be joint or dual degree programs. *International Dual/Double Degree program:* Two or more institutions in different countries collaborate on one-degree program. Upon completion, students receive degree certificates issued separately by each of the institutions involved in the program. These programs generally use the terminology 2+2 or 1+2+1. Under the proposed project 10 BS and 20 MS students will be provided with this opportunity to complete their degrees under dual degree programs of Chinese and Pakistani Universities.
- vi. Conferences, Seminars, Workshops, Colloquia etc.* In current phase, about 12 International Conferences will be arranged at Pakistan and China to showcase the research in both countries, which will be focused on the challenges faced by the two countries, with special emphasis over CPEC and BRI.
- vii. Establishment of China Study Centers:* At least 6 China Study Centers will be established across Pakistan, one each in 5 provinces including Gilgit Baltistan and AJ&K. These centers will focus on strengthening the Chinese

language teaching, cultural and history studies and act as Think Tank for paving long term understanding about CPEC.

Gilgit Baltistan is a region blessed with unique opportunities by nature. The region has a distinction of being the converging point of three of the mightiest mountain ranges in the world, namely: Himalaya, Karakoram and Hindu Kush. These ranges have many of the world's highest peaks and the world's largest concentration of glaciers outside the Polar Region, also called "*Third Pole*". In the Karakorum alone 30 peaks soar over 24,000 feet (7,500 m) and culminate in the 28,250 feet (8,612 m) high K2, second only to Mt. Everest in elevation. Sheer rock walls and ravines, plunging thousands of vertical feet down to the rivers flowing below, mark the unique panorama. These lofty mountains and valleys boast a spectrum of wildlife such as the snow leopard, brown bear, Marco Polo sheep, Himalayan ibex, Astore markhor, golden marmot, woolly flying quirrel and other species, some of which are rare or endangered. Substantial deposits of various minerals and semi-precious stones add to the natural wealth of the region. Glacier and snow melts are the source of fresh water in this arid region. Water flows into the valleys in the form of nullahs (streams) and makes human existence possible.

GB being a gateway to CPEC and Karakoram International University, being a pioneer seat of higher learning has been connected to China both physically, historically and traditionally. The flow of services and goods across the two region under regional trade arrangements, provide unmatched opportunities to the people on both sides of the boarder. KIU established its Confucius Centre , years back to impact Chinese Language literacy to the students and youth. All graduates of KIU are bound to learn the two level of Chinese literacy (HESI&II). Every year more than 1000 students are taught Chinese language by native Chinese teachers. A good number of the faculty of KIU also graduated from Chinese top Universities, who have brought, their rich experience to the region for quality education and research to

more than 7000 students at KIU. The faculty and students of Pakistani Universities and general and KIU in particular would need to abreast for harnessing the opportunities provided under CPEC Knowledge and Research Corridor. Drew Faust President Harvard University quoted: "Higher Education is the strongest, sturdiest ladder for socioeconomic mobility". CPEC knowledge and Research Corridor (CKRC), will enhance the intellectual capacity of the faculty and staff of Pakistani Higher Education Institutes, which will turn the youth force of Pakistan, as growth engine as envisaged by HEC.

Comparative Analysis of Pakistan China Higher Education Systems:

According to Dakar framework adopted by all nations of the world in 2000, education is the right of all (Education for All). Pakistan developed a comprehensive strategy under National Plan for Action to achieve three basic objectives of focusing on early childhood education, universal primary education and adult literacy during 2001-15. China issued *Higher Education Law of the People's Republic of China* in 1998, which provided a framework for broader collaboration among the higher education institutes across China and abroad.

Higher Education plays crucial role in the socioeconomic development of the country, as provides skilled and qualified human resource for the market. In Pakistan, the gap between the needs of employers and attributes of the graduates in general, has led to unemployment. In a cross sectional study of Pakistani graduates on the basis of Employers' perceptions, by Grant Thornton for HEC, some of very shocking facts were revealed. The study informed about the following major evidences from the survey¹:

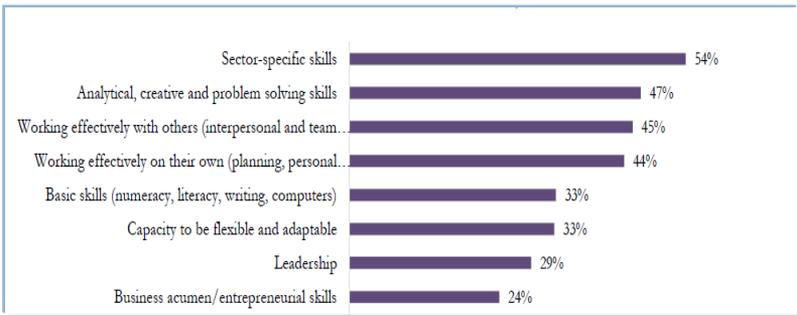
- i. Pakistani HEIs needs to improve their assessment methods, to more practical and hands on assessment, which can

1 Grant Thornton (2016)-Final Report-Employers' Perception Survey-Submitted to HEC. Available at https://hec.gov.pk/english/universities/projects/TESP/Documents/Employers%20Perception%20Survey_May%202016.pdf

- actually test the competence and capacity of the student, in addition to theoretical knowledge.
- ii. This approach will also inculcate the habit of research and inquisitiveness in students, who would focus more on the next phase, which is the application of knowledge.
 - iii. This will also address the issue raised by a majority of employers regarding their lack of satisfaction in some graduate skills that are important for them such as critical thinking, analytical approach, self-initiative and effective interpersonal communication.
 - iv. While **engineering, and information and communication technology are the second and third top most demanded faculties** by our employers, there is **very little development in our universities that cater to the dynamically evolving technological needs of our country**, and as a result employers are resorted to look abroad for their technology needs, as well as for people who have the requisite knowledge and training on latest technologies.
 - v. HEIs in Pakistan should take heed of the fact that a majority of employers, including government and private employers, have foreign qualified people in their work force. The reason attributed to this is the **lack of availability of quality resources in Pakistan, who have practical knowledge and experience in the subject of their specialization**, and also lack overall quality. These are areas that local HEIs need to focus more for being able to adequately meet, local demand of employers.
 - vi. In terms of expectations and satisfaction of employers from graduate skills and competences, **HEIs should focus on the aspects that are most important, but have a low satisfaction with employers, such as critical and analytical thinking, motivation and initiative, effective writing skills and quality consciousness.**
 - vii. Employers have strongly endorsed the use of various means to enhance engagement with HEIs, including; **cooperation on curriculum design and study programs, collaboration**

on research and innovation, recruitment of graduates, work placement opportunities for students, participation in debates/seminars organized by HEIs, structured discussions with course directors or senior management, and cooperation with career services/centers. A proactive and collaborative effort will be required by employers, HEIs and HEC to make progress on these fronts.

They also recommended various skills on the basis of Employers' perceptions for all graduates. These include sector or discipline specific skills, analytical and creative thinking, interpersonal skills, basic skills of numeracy, literacy and computer, flexibility and adaptability, leadership and basic acumen and entrepreneurial skills. The importance of these skills in order of priority responded by the employers is given below:



Grant Thornton (2016)-Final Report-Employers' Perception Survey-
Submitted to HEC. Available at

https://hec.gov.pk/english/universities/projects/TESP/Documents/Employers%20Perception%20Survey_May%202016.pdf

In Pakistan, Higher Education Commission (HEC) was established as a transformed form of previous University Grants Commission (UGC) in the early 21st century, with a mandate to provide quality, accessible, equitable and affordable higher education across the country. HEC, could perform very well in the last two decades in the areas of infrastructure development for

HEIs, Capacity building of faculty and staff, standardization of various processes and procedures at HEIs and improvement of their governance. However, after 18th constitutional amendment and transfer of higher education portfolio to provinces, HEC remained subject to many controversies. The recent orders of the Federal Government to annex HEC with Federal Education ministry has proved a great shock to higher education of Pakistan, as the autonomy of the HEIs and HEC both will be severely affected with the new Ordinance. Pakistan, still needs a lot of hard work to make the standards of higher education compatible to the neighboring countries including India, China and Bangladesh.

China has made heavy investment in higher education and 45 Chinese Universities were included in top 300 HEIs in 2018, as per QS ranking. Currently about 30,000 Pakistani Students are pursuing their higher education in Chinese Universities, out of which at least 10% are pursuing their master and doctoral studies. These students are mainly enrolled in Engineering and Medicine but enrolments in other disciplines is also increasing which include Computer Science, Business Administration, Finance, Chemistry, Architecture, international Law, Broadcasting, Journalism and Media studies etc. China has offered scholarship program for undergrad and graduate studies to attract overseas talent of researchers from Asian countries, particular Pakistan and India. The easy adaptability, good communication in English and hardworking attitude of Pakistani students are some of the preferred attributes for their selection under these scholarship programs.

CPEC consortium of Universities was found in 2017, under the auspices of Higher Education Commission of Pakistan (HEC) and China Association of Higher Education (CHAHE), with an aim to promote University to University linkages. The following Universities are currently members of the consortium:

People's Republic of China

- (1) Fudan University, Shanghai
- (2) Hong Kong Polytechnic University, Hong Kong

- (3) Nanjing University, Nanjing
- (4) Peking University, Beijing
- (5) Shanghai Jiao Tong University, Shanghai
- (6) Shanghai University, Shanghai
- (7) Tsinghua University, Beijing
- (8) University of Science & Technology of China, Hefei
- (9) Zhejiang University, Hangzhou
- (10) Xi'an Jiaotong University
- (11) Harbin Institute of Technology
- (12) Wuhan University
- (13) South-Central University for Nationalities
- (14) Yunnan University
- (15) Shanghai University of International Business and Economics
- (16) Institute of Mountain Hazards and Environment
- (17) Xi'an University of Architectural and Technology
- (18) Sias University
- (19) Northwest University.

Pakistan

- (1) Balochistan University of Information Technology, Engineering & Management Sciences (BUITEMS), Quetta
- (2) COMSATS University of Information Technology, Islamabad
- (3) Institute of Business Administration (IBA), Karachi
- (4) Sukkur IBA University, Sukkur
- (5) Institute of Management Sciences (IMS), Peshawar
- (6) Lahore University of Management Sciences, Lahore
- (7) National University of Computer and Emerging Sciences
- (8) National University of Sciences & Technology, Islamabad
- (9) Pakistan Institute of Development Economics, Islamabad
- (10) University of the Punjab, Lahore

- (11) University of Engineering & Technology, Lahore
- (12) Karakoram International University, Gilgit
- (13) Mehran University of Engineering & Technology, Jamshoro
- (14) University of Engineering & Technology, Peshawar
- (15) NED University of Engineering & Technology, Karachi
- (16) Quaid-i-Azam University, Islamabad
- (17) University of Agriculture, Faisalabad
- (18) Lasbela University of Agriculture, Water & Marine Sciences, Lasbela
- (19) University of Karachi, Karachi
- (20) University of Balochistan, Quetta
- (21) University of Peshawar, Peshawar
- (22) Azad Jammu & Kashmir University, Muzaffarabad
- (23) International Centre for Chemical & Biological Sciences, Karachi University
- (24) University of Agriculture, Peshawar
- (25) Sindh Agriculture University, Tandojam
- (26) Bahauddin Zakariya University, Multan
- (27) International Islamic University, Islamabad
- (28) University of Sargodha, Sargodha
- (29) National University of Modern Languages, Islamabad
- (30) Fatima Jinnah Women University, Rawalpindi
- (31) National University of Technology, Islamabad
- (32) Foundation University, Islamabad
- (33) University of Haripur, Haripur
- (34) Lahore College for Women University, Lahore
- (35) National Defence University, Islamabad
- (36) National University of Medical Sciences, Islamabad

For strengthening bilateral cooperation and collaboration in the areas of socio-economic development, agriculture, industries, infrastructure, energy and people-to-people contacts, the consortium Universities can play a pivotal role. Currently China is sponsoring 100 smart class rooms and establishment of 10 agricultural research centres in various of Pakistan. Chinese

Ambassador HE Yao Jing, highlighted that the next stage of CPEC will be more people oriented where academia, students, Universities and Higher Education and Research Institutes will play a pivotal role to strengthen the collaboration and create trickle-down effect of the CPEC projects of common masses².

The Business Schools of China and Pakistan along the CPEC, started with China Pakistan Management Initiative (CPMI) which is based at Lahore University of Management Sciences (LUMS). CPMI has high focus on on high-quality peer-reviewed research articles, concept notes, technical and policy papers, case studies and executive training to support CPEC³. Beijing Technology and Business University (BTBU) has established a “Pakistan Study Center of Science & Technology and Economy”. Similarly, Centre of Excellence-CPEC has been established at Planning Commission of Pakistan as a policy think tank to provide policy inputs to federal and provincial Governments of Pakistan. Some of the key areas for research under CPMI include: urban development in Pakistan under CPEC; socio-economic impact of CPEC; trade and industry cooperation; regional connectivity; financing and financial sector integration under CPEC; and, job growth and human resource development⁴. The seven key pillars of cooperation for CPEC Consortium Universities and Business Schools include connectivity (transport and information networks), energy, trade and industrial parks (SEZs), agriculture development and poverty alleviation, tourism, people's livelihood and non-governmental exchanges, and financial cooperation. A holistic perspective of such collaboration has been given in Fig⁷¹.

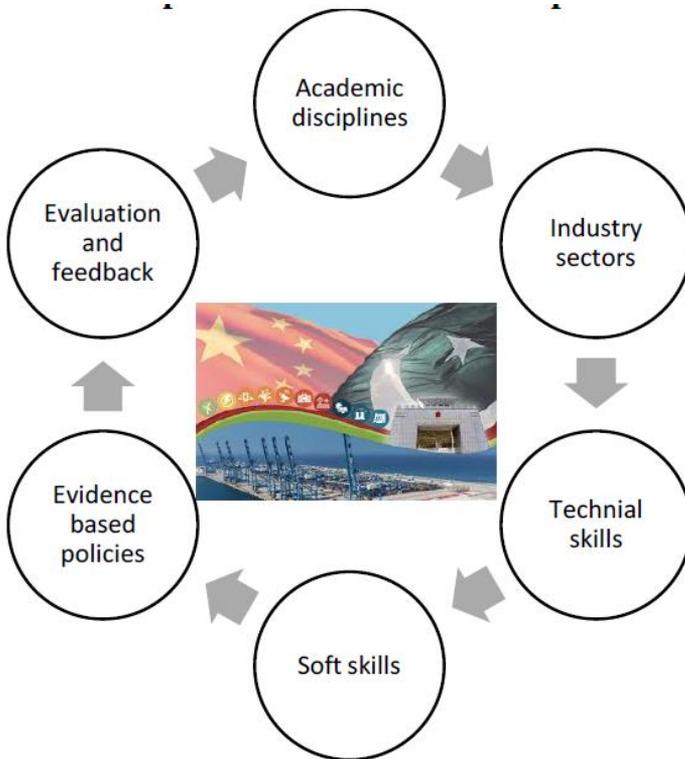
CPEC provides a unique opportunity for the education and research institutions of the countries along the Belts and Roads for collaborative research in the areas such as trade and finance, human resource development with special focus on techno-

2 Xinhua-Asia Pacific-PEC Consortium of Universities pledges to enhance cooperation in business, science, technology between China, Pakistan- Available at http://www.xinhuanet.com/english/2019-11/18/c_138564830.htm

3 Jawad Syed and Memoona Tariq (2018) Cooperation among Business Schools along the Belt and Road: A CPEC Perspective Working Paper: LUMS/CPMI/2018/05/1 (LUMS)

4 CoE (2017). Centre of Excellence - CPEC. Retrieved from: <https://cpec-centre.pk/about-us/>

vocational skills, industrial evaluation, evidence based policies formulation and soft skills etc. Another very important area of collaboration can be environmental sustainability, as with huge development of infrastructure, industries and transportation systems, the fragile ecosystem of the region will be subject to bigger disaster than we have today.



Major components of Universities Collaboration under CPEC Knowledge and Research Corridor

Gerard A. Postiglione (2015)-Research universities for national rejuvenation and global influence: China's search for a balanced model-*High Educ* (2015) 70:235-250

For Pakistan, CPEC will provide three major corridors, physical, intellectual and technological for the development of the region and Pakistani Universities need to prepare for such opportunities.

The soft power to create attraction for a country is comprised of three main State's sources; its culture, political values and its foreign policies. In western countries, this soft power has been linked to democracy and liberalism⁵. The CPEC and its multi-billion investments in Pakistan provide an interesting case study for soft power research⁶

Some of the soft power action of China in Pakistan include, Game Changer Narrative of CPEC, promotion of Chinese Language courses across different Universities of Pakistan, increased film industry cooperation between the two countries and collaboration in higher education.

China has rightly used higher education as soft power to win the hearts and minds of the people of Pakistan. The former ambassador of China to Pakistan HE Yao Jing said: 'the next stage of CPEC would be more people-oriented where students, academia, universities, institutions would be the main players in the China-Pakistan cooperation 7' (CPEC Consortium of Universities pledges 2019). In recent years for at least two decades, China's international collaboration and higher education and exchange of people from different walks of life remained unprecedented⁸. To develop close attraction for the people of Pakistan in the higher education sectors, China has ushered five prong strategy: hosting international students, providing Pakistan's universities with funds and equipment to improve their

5 Li, E. 2018. "The Rise and Fall of Soft Power. Joseph Nye's Concept Lost Relevance, but China Could Bring It Back." *Foreign Policy*, August 20.

<https://foreignpolicy.com/2018/08/20/the-rise-and-fall-of-soft-power/>

6 Kuszewska, A., and A. Nitzka-Makowska. 2021. "Multifaceted Aspects of Economic Corridors in the Context of Regional Security: The China-Pakistan Economic Corridor as a Stabilizing and Destabilizing Factor." *Journal of Asian Security and International Affairs* 8 (2): 218-248. doi:10.1177/23477970211017719.

7 CPEC Consortium of Universities to pave way for economic growth: Minister. 19 November 2019. "Nation." <https://nation.com.pk/19-Nov-2019/cpec-consortium-of-universities-to-pave-way-for-economic-growth-minister>

8 Yang, R. 2015. "China's Soft Power Projection in Higher Education." *International Higher Education* 46: 24-25. doi:10.6017/ihe.2007.46.7938

research and teaching capabilities, establishing centers for collaborative research on the CPEC and related themes, launching Confucius Institutes (ICs) and Chinese classes at universities, and building regional academic networks⁹.

The number of Pakistani students has significantly increased from 1000 in 2006 to more than 28000 by 2018 and about 30,000 at present. China stands at the top amongst the countries, who have received Pakistani students for higher studies, though China is regarded as second choice higher education destination by students coming from middle and lower middle class of Pakistan. China is attracting large number of students from the BRI countries and is gradually becoming the preferred higher education destination for them. This is mainly due to large number of scholarships offered by Chinese Universities, subsidized fee structure, more prospects for employment in BRI/CPEC projects and good reputation of the top Chinese Universities, as molarity of Chinese Universities enjoy higher standards than Pakistani Higher Education Institutes (HEI)¹⁰. The knowledge and Research Collaboration amongst the BRI countries and particularly Higher Education Institutes of China and Pakistan will grow further to act as soft power to mobilize the people to people contacts and to win the hearts and minds of people. The higher education and research as soft power mediator, to create their strong influence in the region. The success of these endeavors will depend on the understanding of people on both sides and higher education would continue to play the role of catalyst in this direction.

This chapter highlights the importance of knowledge and research integration between the two brotherly countries of Pakistan and China. Various options under CPEC collaboration

9 Agnieszka Nitza-Makowska (2021): Can the China-Pakistan Economic Corridor help Beijing Win Pakistanis' hearts and minds? Reviewing higher education as an instrument of Chinese soft power in Pakistan, *International Journal of Cultural Policy*, DOI: 10.1080/10286632.2021.1962849

10 Shah A (2021), "CPEC and China Pakistan Knowledge Corridor" PIVOT Quarterly Magazine of China-Pakistan Study Centre Institute of Strategic Studies Islamabad 3 (2): 9-10

for knowledge and research have been discussed in this chapter. Higher Education Commission, has embarked upon various initiatives for strengthening of intellectual and technology connectivity between the two countries, which has been discussed in this chapter, which include collaborative research projects, exchange of students and faculty, joint and split degree programs, trainings of human resource, joint workshops, conferences and seminars. The faculty and students of Pakistani Higher Education Institutes need to gear up for exploiting these opportunities.

In the next chapter, you will learn the objectives and targets envisaged under Establishment of China Study Centers at various HEIs. It is a matter of high honor for us that one such Centre is being established at Karakoram International University Gilgit Baltistan