



EDUCATION AND SKILLS DEVELOPMENT UNDER THE CAREC PROGRAM

SCOPING STUDY

SEPTEMBER 2019

EDUCATION AND SKILLS DEVELOPMENT UNDER THE CAREC PROGRAM

SCOPING STUDY

SEPTEMBER 2019





Creative Commons Attribution 3.0 IGO license (CC BY 3.0 IGO)

© 2019 Asian Development Bank
6 ADB Avenue, Mandaluyong City, 1550 Metro Manila, Philippines
Tel +63 2 632 4444; Fax +63 2 636 2444
www.adb.org

Some rights reserved. Published in 2019.

ISBN 978-92-9261-748-6 (print), 978-92-9261-749-3 (electronic)
Publication Stock No. TCS190448-2
DOI: <http://dx.doi.org/10.22617/TCS190448-2>

The views expressed in this publication are those of the authors and do not necessarily reflect the views and policies of the Asian Development Bank (ADB) or its Board of Governors or the governments they represent.

ADB does not guarantee the accuracy of the data included in this publication and accepts no responsibility for any consequence of their use. The mention of specific companies or products of manufacturers does not imply that they are endorsed or recommended by ADB in preference to others of a similar nature that are not mentioned.

By making any designation of or reference to a particular territory or geographic area, or by using the term “country” in this document, ADB does not intend to make any judgments as to the legal or other status of any territory or area.

This work is available under the Creative Commons Attribution 3.0 IGO license (CC BY 3.0 IGO) <https://creativecommons.org/licenses/by/3.0/igo/>. By using the content of this publication, you agree to be bound by the terms of this license. For attribution, translations, adaptations, and permissions, please read the provisions and terms of use at <https://www.adb.org/terms-use#openaccess>.

This CC license does not apply to non-ADB copyright materials in this publication. If the material is attributed to another source, please contact the copyright owner or publisher of that source for permission to reproduce it. ADB cannot be held liable for any claims that arise as a result of your use of the material.

Please contact pubsmarketing@adb.org if you have questions or comments with respect to content, or if you wish to obtain copyright permission for your intended use that does not fall within these terms, or for permission to use the ADB logo.

Corrigenda to ADB publications may be found at <http://www.adb.org/publications/corrigenda>.

Notes:

In this publication, “\$” refers to United States dollars.
ADB recognizes “China” as the People’s Republic of China.

On the cover: Skilled workers and students in vocational secondary schools in CAREC countries (photos from the ADB Photo Library).

Contents

Tables	v
Acknowledgments	vi
Abbreviations	vii
Executive Summary	viii
CHAPTER 1: Introduction	1
A. A New Strategy for the Central Asia Regional Economic Cooperation Program	1
B. Objectives and Scope of the Study	2
CHAPTER 2: Diversity of the Central Asia Regional Economic Cooperation Countries	4
A. Income Levels and Natural Resource Dependence	4
B. Labor Migration Patterns	4
C. A Wide Range of Regional Groupings	5
D. Divergent Education Traditions	5
E. Diverse Education and Human Resource Indicators	6
F. Institutional Responsibility for Technical and Vocational Education and Training and Higher Education	6
CHAPTER 3: Challenges In Higher Education	7
A. The Challenge of Quality and Contributing Factors	7
CHAPTER 4: Challenges in Labor Markets and Technical and Vocational Education and Training	11
CHAPTER 5: Benefits of Regional Cooperation	14
CHAPTER 6: Examples of Regional Cooperation in Education	15
A. European Higher Education Area	15
B. Association of Southeast Asian Nations Cooperation in the Education Sector	16
C. Cooperation under the Greater Mekong Subregion Program	17
D. University of the South Pacific	19
E. The Copenhagen Process for Vocational Education and Training	20
F. Caribbean Community Skills Certificate Scheme	21
CHAPTER 7: Potential Partnerships	22
A. University of Central Asia	22
B. Nazarbayev University	23

C. American University of Central Asia	24
CHAPTER 8: Institutional Considerations	25
A. Institutional Framework under CAREC 2020	25
B. Revised Institutional Framework under CAREC 2030	26
CHAPTER 9: Strengths, Weaknesses, Opportunities, and Threats Analysis	28
CHAPTER 10: CAREC Regional Education Workshop	31
CHAPTER 11: Conclusions and Recommendations	32
A. Potential Areas for Regional Cooperation in Education	32
B. Recommendations	34
Appendix: Key Education and Human Resource Indicators for the CAREC Countries	37
References	38

Tables

1	Main Contributing Factors to the Low Quality of Education in the CAREC Region	9
2	Strengths, Weaknesses, Opportunities, and Threats Analysis	28
3	Possible Topics for Technical Assistance for the Education Sector under CAREC	34

Acknowledgments

This study was undertaken on behalf of the Central Asia Regional Economic Cooperation (CAREC) Secretariat and the Asian Development Bank. The team would like to thank Werner Liepach, director general, Central and West Asia Department (CWRD); Nianshan Zhang, deputy director general, CWRD; Rie Hiraoka, director, Social Sector Division, CWRD; and Safdar Parvez, director, Regional Cooperation and Operations Coordination Division, CWRD, for the overall guidance.

The CAREC Secretariat at the Asian Development Bank administered and managed the production of this scoping study. The Secretariat team supporting CAREC education work includes Guoliang Wu, senior regional cooperation specialist and CAREC unit head; Jouko Sarvi, lead education specialist; Carmen Garcia Perez, regional cooperation specialist; Laura Izquierdo, regional cooperation specialist; Jennifer Lapis, CAREC regional cooperation coordinator; and Ruby Torralba, senior programs assistant.

The team expresses its appreciation to the regional cooperation coordinators and national focal points' advisors of all CAREC countries for the assistance extended in collecting relevant information from their respective countries and organizing the regional consultation workshop. The team would also like to extend its gratitude to all participants of the education workshop for their valuable inputs.

The principal author of this study is Robert Wihtol. The contributions of European Training Foundation, International Labour Organization, International Organization for Migration, and all CAREC member countries are acknowledged.

Abbreviations

ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
ASED	ASEAN Education Ministers' Meeting
AUCA	American University of Central Asia
CAREC	Central Asia Regional Economic Cooperation
EHEA	European Higher Education Area
EU	European Union
GER	gross enrollment ratio
GMS	Greater Mekong Subregion
HRD	human resources development
ICT	information and communication technology
LMI	labor–market information
OECD	Organisation for Economic Co-operation and Development
PIC	Pacific island countries
PRC	People's Republic of China
RCI	regional cooperation and integration
SFAP	strategic framework and action plan
SOM	Senior Officials' Meeting
SWOT	strengths, weaknesses, opportunities, and threats
TA	technical assistance
TVET	technical and vocational education and training
UCA	University of Central Asia
USP	University of the South Pacific
VET	vocational education and training
WGHRD	Working Group for Human Resources Development

Executive Summary

In October 2017, the Central Asia Regional Economic Cooperation (CAREC) Program approved a new strategy, CAREC 2030, with the mission to be “a regional cooperation platform to connect people, policies, and projects for shared and sustainable development.” The revised operational framework for CAREC 2030 groups activities in five clusters, including a new cluster on human development that covers education and health. The purpose of this study is to map out the scope for promoting regional cooperation in education. Given that most intercountry exchanges involve either skilled workers or personnel and students engaged in higher education, the study focuses on higher and professional education, labor markets, and technical and vocational education and training (TVET).

Diversity of the Central Asia Regional Economic Cooperation countries. The CAREC countries have many similarities, but are also marked by diversity. They include countries at different income levels, and members of different regional groupings, including the Eurasian Economic Union, the South Asian Association for Regional Cooperation, and the former Soviet Union. Their education traditions are also divergent. The former Soviet Union republics have systemic similarities and Russian as a lingua franca. Three countries (Azerbaijan, Georgia, and Kazakhstan) are also members of the European Higher Education Area (EHEA) or the Bologna Process, with others aspiring to join. Labor migration patterns differ. This is reflected in education and human resource indicators. Government expenditure on education and gross enrollments in higher education vary significantly. Rankings on the United Nations Human Development Index and World Bank Human Capital Index also vary greatly. However, except for Afghanistan and Pakistan, adult literacy is generally high.

Challenges in higher education. Higher and professional education standards in the CAREC countries vary significantly. The People’s Republic of China has a well-developed higher education system, three countries have joined the Bologna Process, and Kazakhstan and the Kyrgyz Republic have emerged as education centers for other former Soviet Union republics. However, by global comparison, standards remain low. In 2018, only three universities in the CAREC region were ranked among the top 100 in Asia and top 400 worldwide. Higher education standards lack uniformity and have declined in several countries. In many, the quality of physical facilities and equipment has deteriorated, in large part due to low financing levels. This, in turn, makes it difficult for universities to attract high-quality faculty and students. Harmonizing degree systems and quality assurance offers an opportunity for CAREC to provide support.

Challenges in labor markets and technical and vocational education and training. TVET systems in CAREC countries also differ significantly. They are generally less developed than in advanced economies and many Asian neighbors. Key challenges include (i) the low quality of TVET programs; (ii) the skills gap, or mismatch between the skills provided on TVET programs and labor-market needs; and (iii) the absence or weakness of national qualifications systems. There is a strong case for CAREC to consider strengthening the region's labor markets and making them more flexible. Potential areas for CAREC's support include harmonizing and strengthening the recognition of TVET qualifications across countries, and strengthening labor-market information (LMI) systems.

Benefits of regional cooperation. The direct benefits of regional cooperation in education include (i) raised standards of higher and secondary vocational education and their adaptation to the requirements of the national and regional labor markets; (ii) enhanced movement of faculty, students, and skilled workers; (iii) greater specialization and enhanced efficiency of labor markets; (iv) improved revenue-generating opportunities for educational institutions; and (v) increased sharing of ideas and experiences related to education. The broader benefits include the improved economic performance, increased economic diversification, and improved economic competitiveness of the CAREC countries individually and the CAREC region as a whole.

Examples of regional cooperation in education. EHEA or Bologna Process is perhaps the most comprehensive regional cooperation initiative in the education sector worldwide. EHEA covers a wide range of activities to guide public authorities, universities, teachers, students, and other stakeholders in the internationalization of higher and professional education. EHEA offers a potential entry point for CAREC in higher education. The Association of Southeast Asian Nations also promotes regional cooperation in the education sector. The Asian Development Bank's operational portfolio offers two models for promoting regional cooperation in education. The Greater Mekong Subregion has promoted cooperation in human resources for over 2 decades, and has generated lessons on key areas for cooperation, the most appropriate institutional arrangements, and what works and what does not. In the Pacific region, ADB has developed a model for providing regional loan financing to the University of the South Pacific that may be of relevance to CAREC.

Potential partnerships. A large number of organizations and institutions are active in the education sector in Central Asia. These include CAREC development partners and other international organizations such as the International Labour Organization; International Organization for Migration; United Nations Educational, Scientific and Cultural Organization; and United Nations International Children's Emergency Fund. Several regional universities also offer potential scope for cooperation, including the University of Central Asia and Nazarbayev University.

Institutional considerations. CAREC's institutional framework is an important enabling factor. CAREC 2020 had a three-tiered structure. Under CAREC 2030, the institutional framework was revised and provides more flexibility for CAREC to expand into new areas, including education and skills. In addition to the Ministerial Conference and Senior Officials' Meeting, the new structure provides for sector committees and subworking groups, supplemented as necessary by expert groups and group discussions.

Strengths, weaknesses, opportunities, and threats analysis. To pull the threads of the discussion together and set the stage for its conclusions and recommendations, the report provides a brief strengths, weaknesses, opportunities, and threats analysis of the scope for CAREC to strengthen regional cooperation in education and skills.

- **Strengths.** CAREC is well-established; several CAREC countries have strong historical links and systemic similarities; CAREC can draw on the experience of development partners currently active in the education sector and benefit from the experience of regional cooperation programs in other regions such as the GMS.
- **Weaknesses.** Education is a new sector and CAREC will need to build up its understanding of regional education and labor–market issues; there is limited awareness of CAREC among policy makers for TVET and higher education, and resources may also be limited. To address these weaknesses, initial cooperation should focus on a few priority areas.
- **Opportunities.** The harmonization of education standards offers a potential niche area for CAREC; the Bologna Process offers a potential entry point; cooperation in skill standards and LMI is also a potential niche; there is also scope for sharing experiences and mutual learning in many areas, including education approaches and innovations, labor migration, and remittances. Several countries have made good progress, which provides the basis for mutual support.
- **Threats.** The CAREC countries are economically diverse and geographically dispersed; their education indicators are divergent, and their education priorities have both similarities and differences; they also have systemic differences; finding a common denominator will not always be easy. To address the threats, CAREC may need to adopt a differentiated approach, focusing on subgroups of countries.

Conclusions and recommendations. The report recommends a phased approach. In the short term (1–2 years), it recommends that an expert group be established to continue the education work under CAREC. The scope of work of such expert group should be defined based on themes of regional relevance such as quality assurance and harmonization of standards, academic mobility, improvement of LMI, and the use of information and communication technology in promoting regional cooperation in education. In the medium term (3–5 years), CAREC could consider the establishment of a sector committee and strategic framework for regional cooperation in education and skills, and loan financing for regional activities.

A. New Strategy for the Central Asia Regional Economic Cooperation Program

1. The Central Asia Regional Economic Cooperation (CAREC) Program is a partnership of eleven countries and development partners working together to promote development through regional cooperation, leading to accelerated economic growth and poverty reduction.¹ The starting point for this scoping study is the new strategy of the CAREC program, CAREC 2030, which was approved by the 16th CAREC Ministerial Conference held in October 2017 in Dushanbe, Tajikistan. The strategy was prepared in response to the recommendations of the midterm review of CAREC 2020 and to key national, regional, and global developments expected to impact CAREC’s relevance and effectiveness going forward.² These included (i) the changing growth and macroeconomic context of CAREC countries, (ii) the changing global and regional trade environment, (iii) the emergence of new players in the region, and (iv) the adoption of new international development goals.

2. CAREC 2030 retains the vision of its predecessor strategy, CAREC 2020, “Good Neighbors, Good Partners, and Good Prospects.” To achieve this vision, the mission statement for CAREC 2030 is “a regional cooperation platform to connect people, policies, and projects for shared and sustainable development.”

3. To put this mission statement into practice, CAREC 2030 adopted a revised operational framework and increased the flexibility of its institutional framework. Compared with CAREC 2020, which grouped activities in four sectors (transport, energy, trade facilitation, and trade policy), the new operational framework groups activities in five clusters: (i) economic and financial stability; (ii) trade, tourism, and economic corridors; (iii) infrastructure and economic connectivity; (iv) agriculture and water; and (v) human development. The human development cluster covers education and health. Integrating the use of information and communication technology (ICT) across the spectrum of CAREC operations will be a cross-cutting priority.

4. CAREC 2030 stresses that “entry into new areas will be gradual and incremental; it will be tailored to the resources and capabilities made available by all member countries

¹ CAREC member countries include Afghanistan, Azerbaijan, Georgia, Kazakhstan, the Kyrgyz Republic, Mongolia, Pakistan, the People’s Republic of China, Tajikistan, Turkmenistan, and Uzbekistan.

² ADB. 2016. *CAREC 2020 Midterm Review*. Manila. pp. 20–22.

and development partners; and it will be backed by sound institutional arrangements and capacity development to ensure effective and timely execution of operations.”³

5. In addition to CAREC 2030, the importance of education and skills is highlighted in recent reports of CAREC’s development partners such as the Asian Development Bank (ADB) and the World Bank. ADB’s 2018 *Asian Development Outlook*, whose theme is the impact of technology on employment, highlights the importance of education and skills. New technologies are expected to improve productivity, lower production costs, and raise demand. However, they will also require countries to implement significant education reforms and increase the flexibility of labor markets.⁴ The recent World Bank report on the changing nature of work echoes these findings, noting that changing technology has disproportionately reduced demand for less skilled workers, while raising the premium on high-order cognitive skills. Building the skills currently in demand in the labor market requires strong human capital foundations and lifelong learning. Investing in human capital must be a priority for countries to take full advantage of the changing nature of work.⁵ These reports provide an important backdrop for CAREC’s proposed approach to education and skills.

B. Objectives and Scope of the Study

6. The overall objective of this scoping study is to assess the potential of CAREC as a regional platform to promote regional education and skills initiatives in the region. The scoping study is intended to help identify opportunities for enhancing and expanding cooperation among member countries in the education sector. This, in turn, is expected to contribute to increasing quality and access to education and skills programs, as well as improving the efficiency and effectiveness of higher and professional education; and technical and vocational education and training (TVET) in the region.

7. The purpose of this study is to map out the scope for establishing regional cooperation in education and skills under CAREC. To place the topic in context, the report distinguishes between three levels: (i) country-level cooperation, (ii) multicountry cooperation, and (iii) regional cooperation and integration (RCI). Country-level cooperation is defined as taking place within one country, for example a project to upgrade selected educational institutions. Multicountry cooperation is defined as activities to share experiences or address common concerns among several countries, for example, a series of workshops to discuss new approaches to curriculum development. Compared with multicountry activities, RCI is a more fundamental process that facilitates transactions and flows among countries. In the transport sector, an RCI program might build roads or transport corridors that straddle more than one country, and improve border and customs procedures to improve the flow of vehicles and goods.

8. In the education sector, RCI could mean promoting policies and measures that improve the flow of knowledge and skills between countries, mainly in the form of labor,

³ ADB. 2017. *CAREC 2030. Connecting the Region for Shared and Sustainable Development*. Manila.

⁴ ADB. 2018. *Asian Development Outlook 2018: How Technology Affects Jobs*. Manila.

⁵ World Bank. 2018. *World Development Report 2019: The Changing Nature of Work*. Washington, DC. <http://www.worldbank.org/en/publication/wdr2019>.

teaching professionals, or students. The improved flows would be expected to support and strengthen the functioning of CAREC countries' labor markets and the movement of skilled personnel and knowledge across borders, thus enhancing the performance of their economies. These flows would generally involve professionals or students engaged in higher education, or skilled or semiskilled labor. For this reason, this report focuses on higher and professional education, labor markets, and skills.

9. To review the scope for cooperation comprehensively, this report considers a wide range of issues. The report is presented in 11 chapters. Chapter 2 discusses the diversity of the CAREC countries. Chapters 3 and 4 review key challenges in higher education, labor markets, and TVET. Chapter 5 discusses the benefits of regional cooperation. Chapter 6 reviews other models of regional cooperation in education, including those of the European Union (EU), the Association of Southeast Asian Nations (ASEAN), and ADB-led activities. This is followed by a discussion in Chapter 7 of potential partnerships, in particular with regional universities. Chapter 8 reviews institutional considerations under CAREC 2030 compared with CAREC 2020. Chapter 9 summarizes strengths, weaknesses, opportunities, and threats (SWOT) in a brief SWOT analysis. Chapter 10 summarizes the highlights of the CAREC regional education workshop, followed in Chapter 11 by the report's conclusions and recommendations.

CHAPTER 2

Diversity of the Central Asia Regional Economic Cooperation Countries

10. The CAREC countries have many similarities. The fact that in the past the education and skill systems of many CAREC countries were harmonized under the former Soviet Union is a strength and offers a potential foundation for improving coordination between these countries. The region also has high adult literacy rates, and high primary and secondary enrollment for both genders (except in Afghanistan and Pakistan). At the same time, CAREC countries are also diverse, in particular, compared with the member countries of other regional cooperation programs such as the Greater Mekong Subregion (GMS) Program.⁶ The GMS countries benefit from both geographical proximity and relatively close cultural and linguistic affinity.

11. Partly due to their diversity, their relative physical isolation and sparse populations, and the resultant lack of large concentrations of economic activity, cooperation in education and skills has so far been weak in the CAREC region. This has prevented CAREC countries from maximizing the potential of their human resources. In framing the scope for cooperation among CAREC countries in higher and professional education and TVET, it is, therefore, important to understand both the similarities and the diversities.

A. Income Levels and Natural Resource Dependence

12. The CAREC countries include upper-middle-income countries (Azerbaijan, the People's Republic of China [PRC], Georgia, Kazakhstan, and Turkmenistan), lower-middle-income countries (the Kyrgyz Republic, Mongolia, Pakistan, and Uzbekistan) and low-income countries (Afghanistan and Tajikistan),⁷ major petroleum exporters (Azerbaijan, Kazakhstan, and Turkmenistan) and countries highly reliant on petroleum imports (the PRC).

B. Labor Migration Patterns

13. The region includes countries with widely divergent patterns of labor migration and reliance on remittances, both labor exporters and importers. Kazakhstan is a net importer of labor, mainly from neighboring countries; while the Kyrgyz Republic, Pakistan, Tajikistan, and Uzbekistan rely significantly on labor exports for foreign exchange revenue and employment. Workers from Georgia, Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan, and

⁶ The GMS member countries are Cambodia, the People's Republic of China, the Lao People's Democratic Republic, Myanmar, Thailand, and Viet Nam.

⁷ World Bank country classification by income, July 2019.

Uzbekistan migrate mainly to the Russian Federation; workers from Azerbaijan to Turkey; and workers from Afghanistan and Pakistan migrate mainly to the Middle East.⁸ Pakistan is dependent on migrant remittances for about 5% of gross domestic product, while in the Kyrgyz Republic and Tajikistan, the corresponding figure is over 33%.⁹

C. A Wide Range of Regional Groupings

14. The 11 CAREC countries are also members of different and only partly overlapping regional groupings. Seven countries (Azerbaijan, Georgia, Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan) were part of the former Soviet Union, with which Mongolia was also closely affiliated. Kazakhstan and the Kyrgyz Republic belong to the Eurasian Economic Union, which is led by the Russian Federation and offers incentives and social benefits to support labor migration within the union. Afghanistan and Pakistan are members of the South Asian Association for Regional Cooperation. Projects are also being planned or implemented under PRC's Belt and Road Initiative. These include the China–Pakistan Economic Corridor and many infrastructure projects traversing Central Asia.

D. Divergent Education Traditions

15. Although they have moved in different directions in the past 25 years, the education systems of the former Soviet Union republics are still closely aligned with one another as well as the education system in the Russian Federation. Although the Russian language continues to be a *lingua franca* in many CAREC countries, local languages are becoming increasingly important.

16. At the same time, several CAREC countries are looking to align themselves with European standards of higher and professional education. Azerbaijan, Georgia, and Kazakhstan already aligned their higher education systems with the EU's Bologna Process, which aims at raising the quality of higher education qualifications and ensuring that these are comparable across European countries.¹⁰ The process led to the creation of the European Higher Education Area (EHEA). The Kyrgyz Republic and Tajikistan also have plans to upgrade their higher education systems to meet the Bologna Process' standards. The Russian Federation is already a member.¹¹

17. The CAREC countries' TVET and higher education systems are also linked to different patterns of labor migration (para. 13), as well as cross-border movement of students for education. Kazakhstan attracts tertiary-level students from several of its neighboring countries and has emerged as something of a regional center for education. To some extent, the Kyrgyz Republic and Tajikistan also attract students from neighboring

⁸ ADB. 2018. *Asian Economic Integration Report*. Manila. pp. 191–193.

⁹ Footnote 8, p. 88.

¹⁰ This includes the approval of Azerbaijan's National Qualification Framework.

¹¹ Bologna Process and European Higher Education Area. 2018. https://ec.europa.eu/education/policy/higher-education/bologna-process_en.

countries. In addition to neighboring countries, Tajikistan also attracts students from India due to a combination of relatively high quality and low cost.

E. Diverse Education and Human Resource Indicators

18. The CAREC countries' diversity is reflected in key education and human resource indicators (Appendix). Government expenditure on education ranges from about 2% of gross domestic product in the PRC to over 6% in Kazakhstan and Uzbekistan. The gross enrollment ratio (GER) in tertiary education ranges from about 10% in Afghanistan, Pakistan, Turkmenistan, and Uzbekistan to 50% and above in Georgia, Kazakhstan, Mongolia, and the PRC. In contrast, except for Afghanistan and Pakistan, adult literacy is commendably high at 96% and above throughout the region.

19. Broad human resource indicators also vary considerably. The CAREC countries' ratings on the United Nations Human Development Index range from a high of 0.800 for Kazakhstan to a low of 0.498 for Afghanistan. Their rankings on the recently published World Bank Human Capital Index also range from the first quartile (Kazakhstan) to the fourth (Afghanistan and Pakistan), with all others placed in the second and third quartiles.¹²

F. Institutional Responsibility for Technical and Vocational Education and Training and Higher Education

20. In general, policy-level responsibility for TVET and higher and professional education in the CAREC countries lies with ministries of education (the specific names of the ministries vary per country). However, in the PRC, the Ministry of Education is responsible for formal education, while the Ministry of Human Resources and Social Security is responsible for skill training. A similar division of labor prevails in Mongolia between the Ministry of Education and the Ministry of Labor. In the CAREC countries where policy responsibility comes under one ministry, operational responsibility for TVET and higher education lies with different administrative bodies or departments within the ministry. As a result, to work effectively on higher education as well as labor market and TVET issues in the 11 CAREC countries, the program needs to work with at least twice that number of government agencies.

¹² Human Capital Index, the World Bank.

CHAPTER 3

Challenges in Higher Education

21. Higher education standards in the CAREC countries vary significantly, as do individual country challenges. The PRC has a well-developed higher education system in which many universities have received top rankings both globally and regionally. Azerbaijan, Georgia, and Kazakhstan are members of the Bologna Process, which helped them to align with the standards of the EHEA. The Kyrgyz Republic and Tajikistan also aspire to join the Bologna Process. Kazakhstan and, to some extent, the Kyrgyz Republic have emerged as regional educational centers that attract students from the other former Soviet Union republics in the region. Tajikistan also attracts students from Turkmenistan and Uzbekistan, due to the relatively closed nature of their education systems, and India.¹³ In the other CAREC countries standards are more varied, although several have well-regarded universities.

A. The Challenge of Quality and Contributing Factors

22. Despite these positive developments, with the exception of the PRC, the principal higher education challenge in the CAREC countries is one of low or moderate quality. Except for the PRC, in 2018, only three universities from CAREC countries (two in Kazakhstan and one in Pakistan) were ranked among the top 400 in the world and the top 100 in Asia.¹⁴ Low or middling quality makes it difficult for higher education institutions to attract top-tier faculty, students, and funding which, in turn, makes investment in quality improvements difficult. It also makes it difficult for industry and commerce in the region to recruit high-quality graduates. Educational standards in Asia and other parts of the world are improving fast, and there is a risk the CAREC region will be left behind, and talented faculty and students will be attracted elsewhere.

23. The underlying reasons for quality problems in higher and professional education vary significantly between countries. Frequently they are linked to constraints in the public budget, the competitive market for attracting financing through fees, the difficulty of attracting talented faculty, and the heavy teaching workload and limited time available for faculty to undertake research. Many universities also face severe constraints related to physical facilities and equipment. These factors combine in different ways to make quality improvements difficult.

¹³ ADB. 2015. *Assessment of Higher Education. Tajikistan*. Manila. p. 10.

¹⁴ These were Al-Farabi Kazakh National University (ranked 220 worldwide) and L. N. Gumilyov Eurasian National University (394) in Kazakhstan, and the Pakistan Institute of Engineering and Applied Sciences (397). 2018. <https://www.topuniversities.com/university-rankings/world-university-rankings/2019>.

24. A comparison of three CAREC countries highlights the different quality constraints. In Pakistan, lack of teachers, facilities, and equipment is often cited as the principal constraint.¹⁵ In Afghanistan, which has a tertiary GER of below 9%, higher education quality is constrained by a lack of resources and the country's turbulent recent past.¹⁶ In contrast, in Georgia, which is part of the Bologna Process and has a tertiary GER of nearly 58%, virtually unrestricted access to university education has led to a decline in quality.¹⁷

25. A study financed by the World Bank on higher education challenges in Central Asia also provides some indication of the nature of the challenge.¹⁸ Prior to independence in the early 1990s, Central Asian countries were part of an integrated education system and their education systems were relatively successful based on indicators such as literacy, primary and secondary coverage, and research. Part of this legacy still remains.

26. Since independence, higher and professional education in these countries followed different paths. The 1990s saw a sharp drop in higher education in Central Asian countries, with the GER in tertiary education declining from 29% to 19%. However, since the turn of the millennium, access to higher education expanded rapidly in some countries (e.g., 50% in Kazakhstan, 43% in the Kyrgyz Republic, and 30% in Tajikistan in 2017).¹⁹ In Kazakhstan, the Kyrgyz Republic, and Tajikistan, the number of higher education institutions increased slightly, while in Uzbekistan, it remained stable.²⁰ Kazakhstan and the Kyrgyz Republic adopted a mass education model, while in Uzbekistan and Tajikistan, higher education remained relatively elitist and is available to a smaller segment of the population.

27. Despite these differences, the study notes the generally slow pace of development in higher and professional education and the similarity of many of the countries' problems:

“... the significant and rapid pace of expansion of the tertiary education system has not brought significant changes to how the institutions are managed, or to how teaching learning and research are conducted. University faculty has changed very little and are aging rapidly with little hope of renewal due to outdated staffing practices and lack of incentives. Within this context, public universities and other tertiary education institutions are at risk of losing relevance, while the newly established private institutions still do not ensure the necessary quality. All this is happening while central government agencies (ministries as well as deconcentrated agencies and other buffer bodies) still have little capacity to hold the providers of tertiary education services accountable. An urgent task ahead is to build consensus on the direction universities and the sector at large should move towards.”²¹

¹⁵ S. Shakil. 2018. Higher Education System and Institutions, Pakistan. Unpublished. p. 8.

¹⁶ F. Hayward. 2015. *Transforming Higher Education in Afghanistan: Success Amidst Ongoing Struggles*. Ann Arbor: Society for College and University Planning.

¹⁷ E. Livny and D. Keshelava. 2018. *The Paradox of Over-Education in Georgia*. <https://blogs.adb.org/blog/paradox-over-education-georgia>.

¹⁸ World Bank. *Higher Education in Central Asia. The Challenges of Modernization*. Washington, DC. Four CAREC countries are included in the study: Kazakhstan, the Kyrgyz Republic, Tajikistan, and Uzbekistan.

¹⁹ Appendix.

²⁰ Footnote 18, pp. 31–34.

²¹ Footnote 18, p. 3.

28. The study highlights the importance of sector reforms and improvements in quality standards, a finding echoed in more recent reviews of higher education conducted by ADB for Mongolia,²² the Kyrgyz Republic, and Tajikistan.²³

29. Based on the above assessment (paras. 22–28), the major contributing factors to the low quality of education in the CAREC region are summarized in Table 1.

Table 1: Main Contributing Factors to the Low Quality of Education in the CAREC Region

Lack of uniformity of higher education standards	In the lower-income CAREC countries, higher education standards have been historically low. In the former Soviet Union republics, again, there was a shift away from Soviet-era standards, in some cases without these being replaced by updated standards. This was accompanied by the growth in the number of private institutions, and the weaknesses in the capacity of the public sector to supervise and regulate the sector. The alignment of standards with the EHEA is welcome in Azerbaijan, Georgia, and Kazakhstan, with the Kyrgyz Republic and Tajikistan planning to follow. However, unless the other CAREC countries adopt this approach, discrepancies within the region will widen.
Deterioration of physical facilities and equipment	<p>There have been significant efforts in several of the CAREC countries, with support from ADB, World Bank, and other sources of external finance, to upgrade the buildings, other physical facilities, and equipment of the education systems; improve teaching and learning materials; and strengthen teacher training. However, most of these efforts focused on basic and secondary education as well as technical and vocational education and training, but with less direct external support for higher education.</p> <p>Many tertiary institutions still have major shortcomings in physical facilities, buildings, and equipment; teaching and learning materials; and scientific infrastructure. The capacity to use information and communication technology and other modern technologies remains low. Given the current rapid pace of technological change, which affects learning needs in many areas, these constraints are significant. They will impact directly on the quality of higher education and the ability of the sector to meet the labor market's needs.</p>

continued on next page

²² ADB. 2011. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to Mongolia for the Higher Education Reform Project*. Manila, pp. 1–3.

²³ ADB. 2015. *Assessment of Higher Education. Kyrgyz Republic*. Manila; and ADB. 2015. *Assessment of Higher Education. Tajikistan*. Manila.

Table 1 *continued*

Low financing levels	<p>Low financing levels contribute to the poor quality of plant and equipment and, most significantly, to low levels of remuneration and incentives for teachers and faculty. This is exacerbated by the decline in several countries in the value of regional currencies, which makes it more difficult to attract international expertise.</p> <p>As a result of the resource constraints, public institutions started to raise funds through tuition fees and other user charges. In some CAREC countries, the role of fee-paying students increased significantly (e.g., 88% of fee-paying students in Kazakhstan, more than 70% in the Kyrgyz Republic, and over 50% in Tajikistan). The fees are mostly in public higher education institutions, while the role of private universities remained limited. In Kazakhstan, in particular, the high level of fee-paying students reflects an increase in the ability and willingness to pay that has accompanied economic growth. At the same time, the tuition fees limit access for students from low-income families, and increased the inequalities within the higher education system.</p>
-----------------------------	--

ADB = Asian Development Bank, CAREC = Central Asia Regional Economic Cooperation, EHEA = European Higher Education Area.

Source: CAREC Secretariat.

Challenges in Labor Markets and Technical and Vocational Education and Training

30. Mirroring the situation in higher and professional education, there is also significant variety in the TVET systems of the CAREC countries, and in individual country challenges. The TVET system in the PRC, as an upper-middle-income country, is the most developed. However, the PRC's manufacturing sector is currently facing challenges linked to technological change, and needs to adapt its TVET system to rapidly changing labor-market needs.²⁴ The TVET systems of the other CAREC countries are generally less developed than those of advanced economies and many of their Asian neighbors. In the low-income CAREC countries, TVET systems are severely resource-constrained, which is reflected in the low quality of TVET provision.

31. The most commonly cited problems in TVET systems are (i) they are not responsive to labor-market needs, and (ii) they are under-resourced and unable to raise funding through cost-recovery mechanisms. Resource constraints, in turn, prevent quality improvements in facilities, equipment, staffing, and information systems that would enhance the TVET system's ability to respond to labor-market needs. As a result, the problems persist and TVET systems have difficulty attracting qualified staff and students. Students and parents in many countries consider TVET a less preferable option than formal higher education.

32. An Organisation for Economic Co-operation and Development (OECD) study of skills development in seven CAREC countries outlines the many challenges.²⁵ These include (i) mismatches between the skills provided by national TVET systems and the actual skill needs of the labor market; (ii) low levels of resources for the sector, and limited opportunities for cost recovery; (iii) insufficient numbers of TVET students and graduates, in particular, at the technical and middle management levels; (iv) national qualifications systems either absent or poorly developed; (v) insufficient practical experience offered by TVET programs, which compounds their limited relevance for labor-market needs; (vi) the perception among potential students and trainees of the poor status of TVET compared with higher education; and (vii) weak sector planning and information systems.²⁶

33. Many of the above observations are confirmed by the background analytical work for recent ADB-financed TVET projects in the Kyrgyz Republic, Mongolia, and Tajikistan. These highlight problems of low standards and generally low quality of facilities and staff; weak links

²⁴ See, for example, ADB. 2018. *Report and Recommendation of the President to the Board of Directors. Proposed Loan to the People's Republic of China for the Shanxi Technical and Vocational Education and Training Development Demonstration Project*. Manila.

²⁵ Afghanistan, Kazakhstan, the Kyrgyz Republic, Mongolia, Tajikistan, Turkmenistan, and Uzbekistan.

²⁶ OECD. 2011. *Developing Skills in Central Asia through Better Vocational Education and Training Systems*. Private Sector Development Policy Handbook. Paris.

with industry, and a mismatch between TVET programs and changing labor-market needs; and the resulting low participation in skills programs.²⁷

34. To strengthen the countries' TVET systems, the study points to the need for (i) greater involvement of employers in the planning and implementation of TVET programs; (ii) strengthened information systems and databases, so that TVET can be more closely aligned with the needs of employers and students; and (iii) the development of national qualifications systems that are closely linked with student assessment and enhance policy makers' ability to develop needs-driven TVET policies.²⁸ The study also notes that the countries covered are making a significant effort to strengthen the involvement of social partners, including employers, in the design and delivery of TVET, and develop the information tools to support TVET systems. Action in both areas will help to improve the quality and relevance to labor markets of TVET programs.

35. In considering CAREC's potential role in helping to strengthen TVET systems and the region's labor markets, it is important to distinguish between national and regional issues. The most common TVET challenges are linked to country-level labor markets and are generally most appropriately addressed at the country level. National programs to strengthen TVET, including support from development partners, tend to focus on strengthening teaching capabilities, facilities, equipment, as well as qualifications, planning, and information systems in relation to country-level labor-market needs. There is little comparative advantage for regional programs to be used to address country-level issues. The GMS program, for example, recently shifted its priorities away from TVET because most issues were related to national rather than regional labor markets.²⁹

36. The situation in the CAREC region may be different. Several CAREC countries, in particular, the Kyrgyz Republic, Pakistan, Tajikistan, and Uzbekistan, are highly reliant on labor migration as a source of employment and remittances. Many others are also significant net exporters of labor, mainly to Kazakhstan and the Russian Federation. In addition to the Russian Federation, Azerbaijan exports labor to Turkey. Afghanistan and Pakistan export labor to the Middle East. During economic downturns, workers return, putting significant pressure on local economies and labor markets.

37. Given the preceding, there is a strong case for CAREC to consider ways of strengthening the region's labor markets and making them more flexible. The most obvious areas for regional cooperation include harmonizing or strengthening the recognition of TVET qualifications across more than one country, and strengthening and linking labor market information systems. It would help to ensure that workers moving across borders have recognized qualifications. Strengthening and linking systems would enhance national TVET planners' understanding of regional labor markets, and potentially offer workers broader information about employment opportunities.

²⁷ ADB. 2014. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to Mongolia for the Skills for Employment Development Project*. Manila; ADB. 2015. *Report and Recommendation of the President to the Board of Directors: Proposed Loan, Grant, and Administration of Grant to the Republic of Tajikistan for Strengthening Technical and Vocational Education and Training Project*. Manila; and ADB. 2017. *Report and Recommendation of the President to the Board of Directors: Proposed Grants to the Kyrgyz Republic for Skills for the Inclusive Growth Sector Development Program*. Manila.

²⁸ Footnote 27, p. 18.

²⁹ ADB. 2018. *The Ha Noi Action Plan. 2018–2022*. Manila. p. 11.

38. Given the diverse patterns of labor migration in the CAREC region, cooperation will likely need to be differentiated, designed to address the needs of different groups of countries. With the high level of labor migration among the former Soviet Union republics and to the Russian Federation, the Central Asian countries stand to gain from building on the joint foundations of their TVET and skill systems. For other CAREC countries, targeted cooperation related to specific labor markets and skill areas may also be justified.

CHAPTER 5

Benefits of Regional Cooperation

39. The direct potential benefits of regional cooperation in higher and professional education and skills include:

- (i) **Overall standards in higher and secondary vocational education in the CAREC countries are raised**, as a result of strengthened harmonization of standards and the enhanced exchange of faculty and students. This will help to raise the overall standard of academic work and the graduates produced within the CAREC region.
- (ii) **Enhanced movement of faculty members, students, and skilled workers** within the CAREC region and beyond, as a result of strengthened harmonization and mutual recognition of tertiary and TVET standards. This will provide students and faculty from the CAREC region with a wider range of choices, both regionally and internationally. It will also help to attract larger numbers of qualified faculty and students to the CAREC countries.
- (iii) **Greater specialization and enhanced efficiency of labor markets.** Harmonized and improved skill standards and strengthened labor–market information will help CAREC countries to address supply–demand gaps. They will also help to promote specialization, economies of scale, and efficient allocation of skilled workers and other resources.
- (iv) **Improved revenue-generating opportunities.** Improved quality standards and enhanced flows and exchanges of faculty and students will improve revenue generation, in particular, in tertiary institutions. Enhanced income flows will contribute to a virtuous circle of improvements in staffing, facilities, educational programs, and revenue generation.
- (v) **Increased sharing of ideas and experiences.** The enhanced flow of people and ideas, in particular, at the tertiary level, will help to disseminate new technologies and education approaches, and improve the planning and implementation of higher education and TVET programs.

40. Regional cooperation in education will also contribute more broadly to the economic development of the CAREC countries. Ultimately, the direct benefits outlined above will help to improve their economic performance. Several CAREC economies are reliant on commodity exports, vulnerable to external shocks, and would like to diversify. In an increasingly competitive global economy, in which several CAREC countries are geographically relatively isolated, they must make full use of their human resources. Improved cooperation in higher education, labor markets, and skill development will strengthen the foundation for economic diversification, and will help enhance CAREC countries' competitiveness, individually and jointly.

CHAPTER 6

Examples of Regional Cooperation in Education

41. Worldwide, the EHEA is perhaps the most comprehensive of various regional cooperation initiatives in the education sector. The Southeast Asia Ministers of Education Organization, under the auspices of the ASEAN, provides an example of regional cooperation in the education sector in the Asia region. There are also at least two existing models for promoting regional cooperation in the education sector in ADB's operational portfolio. The GMS program has included human resources development (HRD) as a strategic priority for over 2 decades. ADB's cooperation with the University of the South Pacific (USP) provides a model for lending to a regional university.

A. European Higher Education Area

42. EHEA, also referred to as the Bologna Process, is an intergovernmental arrangement initiated by the European Union (EU) to internationalize education and harmonize standards that currently covers 48 countries. The process covers a wide range of actions and is intended to guide “the collaborative effort of public authorities, universities, teachers, and students, together with stakeholder associations, employers, quality assurance agencies, international organizations, and institutions, including the European Commission, on how to improve the internationalization of higher education.” It focuses on three issues: (i) the introduction of the three-cycle system (bachelors, masters, and doctorate); (ii) strengthened quality assurance; and (iii) easier recognition of qualifications and periods of study.³⁰ The process was started in 1999 with a declaration of cooperation signed in the city of Bologna by education ministers from 29 European countries. Subsequently, it gradually expanded to its current coverage.

43. The reasons for establishing EHEA are of broad international relevance, including the challenges CAREC countries currently face:

- (i) Widely differing education and training systems in Europe have traditionally made it hard for Europeans to use qualifications from one country to apply for a job or a course in another. Increased compatibility between education systems makes it easier for students and job seekers to move within Europe.
- (ii) At the same time, the Bologna reforms help to make European universities and colleges more competitive and attractive to the rest of the world.

³⁰ Bologna Process and European Higher Education Area. 2018. https://ec.europa.eu/education/policy/higher-education/bologna-process_en.

- (iii) The Bologna Process also supports the modernization of education and training systems to make sure these meet the needs of a changing labor market. This is important as the proportion of jobs requiring high skills grows, and the demand for innovation and entrepreneurship increases (footnote 30).

44. Over the past 2 decades, the Bologna Process has made remarkable progress in harmonizing education standards and strengthening quality assurance, and in expanding the coverage of EHEA beyond the member countries of the EU to a broader group of countries with links to the EU. As a result, the recognition of qualifications within EHEA has improved greatly, together with student and faculty mobility and the ability of member countries' education systems to meet changing labor market and skill needs.

45. The Bologna Process currently addresses various new issues intended to boost mobility and student exchanges. These include establishing a network of European universities, automatic mutual recognition of diplomas, and a European student card. In addition to full membership, which currently includes three CAREC countries (Azerbaijan, Georgia, and Kazakhstan), EHEA also provides for consultative memberships and partnerships (footnote 30).

B. Association of Southeast Asian Nations Cooperation in the Education Sector

46. ASEAN also provides an example of how a regional organization can promote cooperation in the education sector. Since 2005, the ASEAN Ministers of Education have regularly convened ASEAN Education Ministers' Meetings (ASED). ASED agreed that this cooperation will have four priorities: (i) promoting ASEAN awareness among its citizens, particularly youth; (ii) strengthening ASEAN identity through education; (iii) building ASEAN human resources in the field of education; and (iv) strengthening ASEAN university networking. Many of the ASED activities are undertaken through the Southeast Asia Ministers of Education Organization.³¹

47. ASED also established the ASEAN University Network to (i) promote cooperation among ASEAN scholars, academicians, and scientists in the region; (ii) develop academic and professional human resources in the region; (iii) promote information dissemination among the ASEAN academic community; and (iv) enhance the awareness of an ASEAN identity among members (footnote 31).

³¹ Association of Southeast Asian Nations. 2018. <https://asean.org/asean-socio-cultural/asean-education-ministers-meeting-ased/>.

C. Cooperation under the Greater Mekong Subregion Program

48. The GMS program was ADB's first major RCI initiative. In HRD, the GMS program offers many examples and lessons for developing education sector cooperation under CAREC.

49. The GMS was launched in 1992 to promote economic and social development in its member countries. It organized its activities under major strategic areas of cooperation, of which there are currently seven. Cooperation in strategic areas is generally coordinated under working groups comprising representatives of the member countries, development partners, and ADB. The Fifth GMS Ministerial Conference, held in 1995, established the Working Group for Human Resources Development (WGHRD) to “address issues in education and skills development, labor and migration, health and social development.” Subsequently, cooperation in HRD was carried out through project-based activities.

50. In 2007, the midterm review of the GMS Strategic Framework noted that, although the WGHRD had addressed key HRD concerns, it lacked a strategic framework. In response, the WGHRD developed a Strategic Framework and Action Plan (SFAP) for the period 2009–2012, which was approved at the Third GMS Summit in 2008. The SFAP was intended “to (i) support HRD initiatives that directly facilitate the process of subregional cooperation and integration, such as managing labor migration and harmonizing HRD standards; and (ii) address cross-border issues directly linked to GMS integration such as cross-border transmission of communicable diseases and human trafficking.”³² Following successful implementation of the first SFAP, in 2011, the GMS WGHRD initiated the preparation of a new SFAP, for 2013–2017.³³

51. The 2016 midterm review of the GMS led to the formulation of a new action plan for 2018–2022. The plan entailed significant adjustments in the HRD strategic area based on the difficulties encountered in maintaining a regional cooperation program in the education sector. These included closing the WGHRD, agreeing to focus on communicable disease control, and leaving the future of cooperation in education open for consideration.³⁴

52. The GMS experience in HRD offers lessons for CAREC in at least three areas. The first relates to the key areas of cooperation in education and skills. Under the second SFAP, GMS cooperation in HRD focused on the following areas:

- (i) **Capacity development in economic corridors for both the public and private sectors.** The Phnom Penh Plan for Development Management has been implemented for 2 decades. It trains regional officials and strengthens regional institutions.

³² ADB. 2009. *Greater Mekong Subregion. Strategic Framework and Action Plan for Human Resource Development 2009–2012*. Manila.

³³ ADB. 2013. *Greater Mekong Subregion. Strategic Framework and Action Plan for Human Resource Development 2013–2017*. Manila.

³⁴ ADB. 2018. *Greater Mekong Subregion. The Ha Noi Action Plan 2018–2022*. Manila, 8 and 11.

- (ii) **Technical and vocational education and training.** The GMS strengthened the mutual recognition of skills, mutual recognition of teaching standards, standardization of learning materials, and development of subregional quality assurance systems.
- (iii) **Higher education and research.** The GMS supported the harmonization and networking of higher education programs, strengthening higher education in the economic corridors, and the development of a GMS knowledge platform.

53. In addition, the GMS worked in two cross-cutting areas that have relevance for HRD: (i) facilitating safe cross-border labor migration, and (ii) mitigating the social costs of the economic corridors. In several instances, this cooperation was also addressed through multicountry technical assistance (TA) projects. For example, in the TVET sector, a TA was used to develop a framework for the mutual recognition of skills and qualifications in three skill areas. It was tested and validated in some TVET schools in the Lao People's Democratic Republic, Thailand, and Viet Nam.³⁵

54. Second, the GMS institutional and implementation arrangements were developed and refined over 2 decades and offer important lessons. In the HRD area, the GMS institutional arrangements had three levels. At the top was the WGHRD. Initially it convened every 2 years, and from 2011 onward, once a year. It focused on strategic questions and results rather than information sharing. The WGHRD comprised five members from each country, a focal point from a government unit with broad inter-sector and crosscutting focus, and focal points for each of the four subgroups.³⁶ The WGHRD was matched in the member countries by national HRD working groups.

55. At the next level, the GMS had four sector subgroups, one each for the three main areas (education, health, and labor and migration) and a fourth for social development. The social development subgroup was considered separately because its role was to provide strategic guidance to the WGHRD and the three main subgroups on cross-cutting issues such as gender, ethnicity, children and youth, HIV/AIDS, human trafficking, and other social issues. The subgroups generally met in connection with WGHRD meetings.

56. In addition, the second SFAP specified that the WGHRD would form task-oriented groups as required to achieve the desired results. The establishment of the task-oriented groups was “based on the recognition that the achievement of some results requires a more flexible organization than that of the WGHRD, which is more policy-oriented than action-oriented.”³⁷

57. Third, the 2018 refocusing of the GMS' HRD programs away from education offers lessons on what works and what does not. The refocusing emphasized “the need to focus on activities that are truly regional in nature.” Significant progress was made in communicable disease control at the national and regional levels, which justified its selection as a priority

³⁵ ADB. 2009. *Technical Assistance for Implementing the Greater Mekong Subregion Human Resource Development Strategic Framework and Action Plan (Phase 1)*. Manila.

³⁶ ADB. 2013. *Greater Mekong Subregion. Strategic Framework and Action Plan for Human Resource Development 2013–2017*. Manila, p. 17.

³⁷ Footnote 36, p. 18.

area of focus. However, projects in the TVET subsector “consisted mainly of national interventions that catered to the unique characteristics and needs of the domestic labor markets.” Higher education cooperation in academic credit transfers, quality assurance, and mutual recognition, again, was taking place in the context of ASEAN.³⁸ Consequently, the rationale for the GMS to continue working in these areas was not clear.

58. In sum, the GMS program learned important lessons at three stages. After working for several years on a project-by-project basis, the midterm review drew attention to the need to have a broader strategic framework for cooperation. The second SFAP, again, highlighted three lessons: (i) effective monitoring and implementation is needed at the country level to ensure successful implementation; (ii) to achieve desired results, more use should be made of task-driven multisector groups focused on a particular issue or set of related issues; and (iii) active engagement of strategic partners improves effectiveness and sustainability.³⁹ Finally, the 2018 winding down of education sector activities highlighted the limitations of regional cooperation in education. Thus, when defining the scope for cooperation going forward, it is important that CAREC carefully assesses the existing regional education initiatives together with member countries’ needs and priorities to better understand and identify the gaps to be filled.

D. University of the South Pacific

59. The Pacific island countries (PICs) face education challenges that have parallels with the more remote CAREC countries. The PICs are spread over a wide area, although they are separated by water rather than large stretches of land; sparsely populated; and at a geographic disadvantage due to their difficulty accessing markets. To build their economies, they need a workforce with good skill levels and managerial competencies. The lack of higher education facilities has made it virtually impossible for the PICs to provide their citizens with equitable access to higher education. Prior to the establishment of USP in 1968, there were no higher education institutions in the PICs. As a result, the PICs were entirely reliant on higher education outside the region, mainly in Australia and New Zealand. This education was not affordable for most students, particularly from low-income groups, and only 5% of students seeking overseas scholarships could be accommodated.⁴⁰

60. To address their higher education challenges, 12 PICs established the USP.⁴¹ Its main campus is in Suva, Fiji, and it currently has 14 campuses spread over its 12 member countries. The largest are in Kiribati and Solomon Islands. In 2011, approximately 22,000 students were enrolled in USP’s pre-degree and degree programs across its member countries, an increase of 10% over the previous year. It is estimated that over 75% of all higher education students in the 12 member countries are enrolled at USP. By offering higher education programs locally, and at significantly lower cost than sending students outside the

³⁸ ADB. 2018. *Greater Mekong Subregion. The Ha Noi Action Plan 2018–2022*. Manila. p. 11.

³⁹ Footnote 38, p. 17.

⁴⁰ ADB. 2012. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranchise Financing Facility for the Higher Education in the Pacific Investment Program*. Manila.

⁴¹ The Cook Islands, Fiji, Kiribati, the Marshall Islands, Nauru, Niue, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, and Vanuatu.

region, the establishment of USP helped significantly to increase equitable access to higher education in the PICs.

61. Given USP's successful track record and that it was the sole provider of higher education programs in the PICs, ADB was keen to explore ways of cooperating with USP. In addition to TA grants, given the need to upgrade and expand USP's various campuses, ADB explored the scope for channelling loan funds to USP. In 2012, ADB approved a \$19 million concessional multitranche financing facility for the USP. The first tranche was intended to upgrade the USP campus in Kiribati and to strengthen USP's management capacity. The second tranche is expected to upgrade the campus in Solomon Islands and finance the construction of a new dormitory building at the main campus in Fiji.⁴² The model for financing ADB's project with USP provides valuable lessons and might in due course guide CAREC's cooperation with regional universities. However, CAREC should first establish a work plan for the higher education subsector and familiarize itself more closely with the potential partner universities.

E. The Copenhagen Process for Vocational Education and Training

62. Following the successful establishment of the Bologna Process, there were calls within the EU for the establishment of a similar mechanism for vocational education and training (VET). This led to the establishment in 2002 of the Copenhagen Process for VET at a conference of European ministers responsible for VET held in Copenhagen. The main purpose of the Copenhagen Process was the development of VET to promote the supply of "the highly skilled workforce necessary to make Europe one of the most competitive and dynamic knowledge-based economies and societies in the world."⁴³ The Copenhagen Process set out to establish a single framework for VET qualifications and competences; cooperation in quality assurance; a credit transfer system; strengthened policies, systems, and practices at the national level; and various support measures within the EU.

63. The Copenhagen Process achieved results in several areas, including establishing (i) a single framework for transparency of qualifications and competences, (ii) a range of EU resolutions on VET policies and quality assurance that provide the foundations for a consistent approach throughout the EU, and (iii) a VET credit transfer system. The Copenhagen Process helped to establish a degree of coherence between the VET policies of the participating countries, but its overall impact is, so far, significantly more limited than that of the Bologna Process. Participating countries are EU members, other countries from the European Economic Area, and a few contiguous countries, mainly Turkey, that have close labor-market ties to the EU.

⁴² ADB. 2012. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranche Financing Facility for the Higher Education in the Pacific Investment Program*. Manila, p. 6.

⁴³ European Commission. 2004. Memo/04/293: The Copenhagen Process-The European Vocational Education and Training Policy-Frequently Asked Questions (FAQ). Brussels.

F. Caribbean Community Skills Certificate Scheme

64. The Caribbean Community, comprising 15 small and island countries, has a skills certificate scheme that offers a practical model for facilitating mobility of university graduates and students with vocational qualifications. The program also sets common standards, which make it easier for employers to assess skills and the value of apprenticeships and work experience. The program is voluntary, with 12 of the 15 countries participating.⁴⁴ The Caribbean Community countries have several joint institutions, most notably the Caribbean Court of Justice, that facilitate implementing the program, which is binding on countries that joined.

65. Professionals who wish to make use of the scheme to move from one Caribbean Community country to another should apply in good time before departing. Once their application is approved, they receive both a skills certificate and rights to permanent residency in the destination country. Since 2014, about 14,000 certificates were issued under the scheme. While it was generally successful, it suffered from bureaucratic problems, and shortcomings in the legal protection of some skilled workers were noted.

⁴⁴ Participating countries include Antigua and Barbuda, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, and Trinidad and Tobago.

CHAPTER 7

Potential Partnerships

66. A large number of organizations and institutions are active in the education sector in CAREC countries and offer scope for partnerships. In addition to the development partners that participate regularly in CAREC meetings, these include the EU, bilateral donors, and specialized agencies such as the International Organization for Migration; the International Labour Organization; the United Nations Educational, Scientific and Cultural Organization; and the United Nations Children’s Fund. These organizations work mainly at the country level, but some of their activities also have a strong regional dimension, in particular, those related to migrant labor and education and skill standards. Several of these agencies might be interested in supporting the education work under CAREC through participation in expert groups’ meetings and development of joint initiatives.

67. In addition, as the CAREC region’s higher and professional education sector evolved, several promising regional universities emerged. Universities received less direct financing from international development partners, but benefited from the wide range of networks, exchange programs, and financial partnerships that exist at the tertiary level. Several of the principal regional universities are described below.

A. University of Central Asia

68. University of Central Asia (UCA) was established in 2000 as a private, not for profit, secular university through an international treaty signed by the Presidents of the Kyrgyz Republic, Tajikistan, and Kazakhstan; and the Aga Khan; ratified by their respective parliaments; and registered with the United Nations. UCA’s agenda is threefold: (i) to serve as a regional university bringing higher education studies to mountain societies, (ii) to offer continuing and professional education for employment and education mobility, and (iii) to undertake policy relevant research and capacity building focused on economic development.⁴⁵

69. UCA has undergraduate programs located at residential campuses in Naryn, Kyrgyz Republic; and Khorog, Tajikistan. It is currently building a campus in Tekeli, Kazakhstan, which is expected to start classes in 2021–2022. It also offers programs in Afghanistan. By locating its campuses in secondary cities and rural settings, UCA “hopes to be at the heart of an intellectual and economic transformation in the region.”⁴⁶

⁴⁵ University of Central Asia. 2017. “Serving the Development of Central Asia’s Mountain Societies.” PowerPoint presentation at the Regional Education Forum. 7–8 July 2017. Bishkek.

⁴⁶ University of Central Asia. <http://ucentralasia.org/about>.

70. UCA offers academic, short-term, and vocational programs to an international student body. It comprises three institutional programs. The School of Arts and Sciences plans to offer undergraduate courses at all three campuses, working through a range of international partnerships. The Graduate School of Development is intended to support evidence-based policy-making. It conducts public policy-related research, gathers data and conducts evaluations; offers short-term programs in various areas of public policy; and provides policy advice. The School of Professional and Continuing Education offers adult education programs in such subjects as accounting, applied languages, entrepreneurship and microfinance, ICT, tourism, and public administration. It also offers TVET programs, mainly in construction and automotive trades, with a focus on training for employment.

71. UCA's faculty is recruited internationally and from Central Asia. Reflecting its mission, its student body is a mix of Central Asian and international, largely from relatively disadvantaged areas. In 2017–2018, 78% of students were from Central Asia and 22% from other countries; 37% were from urban areas and 63% from secondary towns and small villages.

72. UCA has international partnerships with seven universities: Seneca College, the University of Toronto, University of British Columbia, and University of Victoria in Canada; the University of Technology Sydney in Australia; the Stockholm School of Economics in Riga, Latvia; and the National Research University's Higher School of Economics in Moscow. It also has a wide range of institutional partnerships, including several international organizations.⁴⁷

73. UCA has a broad mission that includes higher education, short-term, and vocational programs, and is interested in policy work with a focus on economic development. It is regional in nature, with an international student body, and is focused on supporting mountainous and remote parts of Central Asia with a high concentration of poor people who are beyond the reach of mainstream programs. These provide significant potential areas of common interest with CAREC.

B. Nazarbayev University

74. Nazarbayev University, although essentially a Kazakhstan university, is another major international player in the region. It was established in Nur-Sultan in 2010 “as the country's flagship academic institution with aspirations to become a global-level research university.” The university was established in the context of wide-ranging reforms of Kazakhstan's education system intended to drive the country's economic growth performance. It was also intended to be the hub of a network of 11 region- and industry-specific Kazakhstan universities to support the growth of different parts of the country that are closely linked to the development of applied research.⁴⁸

⁴⁷ In the past, UCA held discussions with ADB. Now that the CAREC Program is expanding its coverage to education, these discussions could be resumed.

⁴⁸ Nazarbayev University. 2017. “Recent Higher Education Reforms in Kazakhstan: The Case of Nazarbayev University.” PowerPoint presentation at the Regional Education Forum. 7–8 July 2017. Bishkek.

75. Nazarbayev University also has a strong international dimension. Its president is a former vice-president of the World Bank, its faculty is internationally recruited, and it uses English as its language of tuition and research. NU has strategic partnerships with nine universities, in the United States, United Kingdom, and Singapore. It was also a co-founder of the Asia Universities Alliance, a regional body with the objective of “developing a strong network of Asia’s top universities in order to compete with Western universities” (footnote 48).

76. In 2017, NU had a student body of nearly 4,000, an international faculty from over 55 countries, and significant research and publication achievements. It has also hosted conferences for ADB, the International Monetary Fund, OECD, World Bank, and various bilateral donors and private organizations. With its strong international background and focus on maintaining high standards, it may offer scope for collaborating with CAREC and promoting regional education cooperation in the region.

C. American University of Central Asia

77. American University of Central Asia (AUCA) was established in 1993 in Bishkek as an “international, multi-disciplinary learning community in the American liberal arts tradition that develops enlightened and impassioned leaders for the transformation of Central Asia.”⁴⁹ AUCA offers both academic preparatory programs and degree programs in a wide range of liberal arts subjects. Its primary teaching language is English, and its faculty and students come from about 25 countries.

78. A number of other universities may also offer potential for regional cooperation, including the recently established Silk Road Tourism University in Samarkand, and the initiative from the Higher Education Commission of Pakistan to establish a regional university—the University of Central Asia and Pakistan—in Islamabad.⁵⁰

79. In sum, several regional universities cover various parts of the CAREC region that could in due course serve as conduits for cooperation under CAREC. In the Pacific island countries, USP is the only institution based within the region that offers tertiary education, and the argument for providing financial and technical support to the university was, therefore, clear (see paras. 59–61). In contrast, in the CAREC countries, the scope and the most appropriate form of cooperation with regional universities will need to be further explored.

⁴⁹ AUCA. 2018. <http://www.auca.kg/>.

⁵⁰ S. Gul. 2017. University of Central Asia and Pakistan to be established in Islamabad. *Islamabad Scene*. 1 August.

Institutional Considerations

80. The institutional framework of the CAREC Program is an important enabling factor for regional cooperation in education and skills. CAREC's previous committee structure, with four well-established committees in transport, trade facilitation, trade policy, and energy, helped to keep the program's work focused. However, it also made it difficult for CAREC to review needs more broadly and expand into new areas. CAREC 2030 provides a more flexible framework.

A. Institutional Framework under CAREC 2020

81. Previously, the CAREC institutional framework had a three-tiered structure. The Ministerial Conference set the strategy and provided overall guidance for the CAREC program. At the next level, the Senior Officials' Meeting (SOM) functioned as the recommendatory body for the Ministerial Conference, and served as a forum for the review of issues prior to making decisions. The SOM comprised national focal points or their representatives from each of the member countries. The third level comprised four sector coordinating committees, with responsibility for the effective and timely implementation of the medium-term priority projects. There were four sector committees for transport, customs cooperation, trade policy, and energy. Participants in the sector coordinating committees generally represented the line agencies responsible for specific MTPPs.⁵¹

82. The CAREC 2020 institutional framework helped to keep CAREC participants focused. However, as each committee focused on its own area of responsibility, it also constrained CAREC from expanding into areas beyond those the committees covered. The 2016 midterm review of CAREC pointed out that the sector coordinating committee structure "tends to make CAREC supply-driven and limits its flexibility to explore new areas."⁵²

⁵¹ ADB. 2012. *CAREC 2020. A Strategic Framework for the Central Asia Regional Economic Cooperation Program 2011–2020*. Manila. pp. 18–20.

⁵² ADB. 2016. *CAREC 2020. Midterm Review*. Manila. p. 22.

B. Revised Institutional Framework under CAREC 2030

83. CAREC 2030 has a revised institutional framework designed to provide more flexibility for the program to expand into new areas. The new operational framework comprises five operational clusters (economic and financial stability; trade, tourism, and economic corridors; infrastructure and economic connectivity; agriculture and water; and human development). ICT is highlighted as an additional area cutting across all five clusters.

84. Organizationally, the structure has new levels. The Ministerial Conference and SOM levels were maintained, but with enhanced roles. Beneath the Ministerial Conference and SOM, CAREC 2030 envisages a more flexible structure, with sector committees and subworking groups, supplemented as necessary by expert groups. The structure is seen as flexible as need-driven. The strategy notes that “the institutional arrangements for each cluster will be defined based on the specific implementation requirements in each cluster.”⁵³

85. In determining the institutional arrangements, in particular, for the new areas of operations “where clarity on the actual scope of work needs to be further developed,” CAREC 2030 specifies the following:

“... a series of group discussions and workshops will be conducted. Such discussions could help develop a consensus on the key issues to be addressed, in what sequence, and the type of institutional structures that might be needed for successful implementation in the cluster or sector. Based on the outcomes of such discussions, expert groups in each area may be convened to kick off topical discussions, converge interest of member countries, identify concrete scope of activities and key issues of regional relevance, and conduct dialogue with key development partners. Ultimately, fully empowered sector committees, including necessary subworking groups, could be established as needed to develop and implement strategic action plans to move forward on the identified initiatives.”⁵⁴

86. CAREC 2030’s bottom-up and demand-driven approach to addressing key issues in the new and emerging areas provides a contrast to the more top-down approach of CAREC 2020. However, as the approach to education and skills emerges, at least two questions need to be addressed. First, CAREC, through group discussions, needs to identify the priority areas in which to establish expert groups.

87. Second, CAREC needs to determine the broader structure for the human development cluster. Will it be sufficient to have several need-driven expert groups in education and skills, and several in priority areas of health? Or will the human development cluster in due course require a sector or cluster committee to bring strategic coherence to the cluster and allow it to address cross-cutting issues? The experience gained by the GMS program offers valuable lessons (see paras. 54–58). This report recommends a

⁵³ ADB. 2017. CAREC 2030. *Connecting the Region for Shared and Sustainable Development*. Manila. p. 16.

⁵⁴ Footnote 53, p. 16.

two-stage approach. In the short term, CAREC could establish an expert group, supported by grant-financed TA projects. In the medium term, CAREC could consider establishing an education sector committee and strategic framework, and regional lending. These recommendations are described in detail in Chapter 11.

CHAPTER 9

Strengths, Weaknesses, Opportunities, and Threats Analysis

88. The preceding chapters 2–8 have discussed a diverse range of issues with a bearing on strengthening regional cooperation in education and skills under the CAREC. To pull the threads of the discussion together and set the stage for the conclusions and recommendations, this chapter presents the strengths, weaknesses, opportunities, and threats (SWOT) analysis of promoting regional cooperation in education and skills under CAREC. The strengths and weaknesses are defined as factors internal to CAREC. The opportunities and threats are defined as factors external to the CAREC program and relating to the member countries, education and skill sector in the CAREC region, and broader operating environment. These are summarized in Table 2.

Table 2: Strengths, Weaknesses, Opportunities, and Threats Analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> • CAREC is a well-established program with long experience and an established structure for promoting RCI. • Several CAREC countries have strong historical links and systemic similarities that provide a solid foundation for RCI. • Several CAREC development partners are active in the education sector, and CAREC can benefit from their programs and experience both within and outside the region. 	<ul style="list-style-type: none"> • Education is a new sector for CAREC; CAREC will need to build up its understanding of regional education, skill and labor–market issues. • Lack of familiarity of policy makers for technical and vocational education and training and higher education with the CAREC Program. • Limited resources.
Opportunities	Threats
<ul style="list-style-type: none"> • Three CAREC countries are aligned with the Bologna Process, and others show interest, which may offer an entry point for harmonization of education standards in the region. • Several CAREC countries have experience in labor migration and generating remittances, which offers a potential niche for cooperation in skill standards and labor–market information. 	<ul style="list-style-type: none"> • CAREC countries are economically diverse and spread over a wide geographical area. • CAREC countries’ education and human development indicators vary widely and, therefore, countries’ priorities and needs in the education sector may differ. • Lack of uniformity in higher education standards.

continued on next page

Table 2 *continued*

Opportunities	Threats
<ul style="list-style-type: none"> Several CAREC countries made good progress in raising educational standards and introducing educational innovations; this also provides an opportunity for mutual learning. CAREC may offer a means of cooperation to achieve education-related targets under the Sustainable Development Goals, to which all CAREC countries are signatories. 	<ul style="list-style-type: none"> Changing labor–market needs and diverse labor migration patterns.

CAREC = Central Asia Regional Economic Cooperation; RCI = regional cooperation and integration, SWOT = strengths, weaknesses, opportunities, and threats.

Source: CAREC Secretariat.

89. **Strengths.** As a regional program, CAREC has several notable strengths. It has been operational for nearly 2 decades and has well-established structures and mechanisms for promoting regional cooperation. Several CAREC countries have strong historical links and systemic similarities that provide a solid foundation for regional cooperation in education. In addition, several of CAREC’s development partners have ongoing education sector activities that can support the development of regional cooperation in education and skills. In addition, CAREC can also draw on the experience generated by the GMS Program, which has a long history of activity in the human resources sector.

90. **Weaknesses.** Education is a new sector for CAREC, and the program needs to build up its understanding of regional education, skill, and labor–market issues. Furthermore, there is a need to raise awareness of the CAREC Program among policy makers for technical and vocational education and training and higher education in the region. Limited resources may also be a constraint. To address these weaknesses, CAREC should initially focus on a few priority areas with clearly defined targets and ensure limited resources are used to maximum effect.

91. **Opportunities.** The CAREC countries offer significant potential for a regional program to support significant improvements in higher education standards and bring them in line with international standards. This would facilitate the movement of students and faculty within the region and with other parts of the world, and would contribute to an overall increase in quality. That three CAREC countries have joined the Bologna Process, with others showing interest, may offer a suitable entry point for the harmonization and mutual recognition of qualifications. In addition, several CAREC countries made good progress in raising educational standards and introducing educational innovations which could be shared with other countries. The education-related targets under the Sustainable Development Goals, to which all CAREC countries are signatories, provide a common framework for undertaking collective actions.

92. Several countries gained significant experience in questions of labor migration and generation of remittances. However, the movement of skilled workers within CAREC and between CAREC countries and countries outside the region could benefit from improved

information systems and other measures to facilitate the movement of labor. Thus, cooperation in skill standards and labor–market information also offers a potential niche for CAREC.

93. **Threats.** The principal threat to strengthened cooperation among the CAREC countries lies in their geographical dispersion and economic diversity. The CAREC countries' education-related indicators vary significantly. The upper-middle-income countries are in many instances facing different education and skill challenges from the lower-income countries. Despite historical and systemic similarities, the education sectors of the former Soviet Union republics have, in recent years, moved in different directions. Labor migration patterns are also diverse, with workers migrating within the region and to various destinations outside the region. Finding common denominators for cooperation will not always be easy.

94. To address these threats, CAREC may need to consider adopting a differentiated approach. This would entail promoting cooperation within subgroups of countries, such as the former Soviet Union republics, or the countries planning to align their higher education systems with the Bologna Process. On labor market and skill issues, cooperation will be most natural among countries that are geographically contiguous or with strong labor–market linkages and intercountry movement of skilled workers.

CHAPTER 10

CAREC Regional Education Workshop

95. A regional consultation workshop was held in March 2019 in Bishkek, Kyrgyz Republic. Participants included officials from 11 CAREC countries, representatives of leading regional universities, and key development partners. Participants highlighted that investing in human development is essential to achieving sustainable economic growth, and should be at the center of all national and regional development agendas.

96. In the CAREC countries, it was noted that there is evidence of a skills mismatch between labor demand and supply. To address this gap, it is key that higher education and vocational training institutions work closely with the industry to develop curricula and occupational standards to improve employability and job-readiness of students. Participants emphasized the need to focus on developing skills that are growing in demand in the evolving workplace fueled by the fourth industrial revolution.

97. Participants agreed that work in education and skills development under CAREC should pursue the overall objective of improving movement of faculty, students, and workers across countries and enhancing responsiveness to the rapidly evolving regional labor-market needs. Participants expressed their broad support for the initial areas for collaboration identified in the education scoping study, including: (i) mutual recognition of qualifications and skills; (ii) quality assurance and harmonization of standards; (iii) promotion of student, faculty, and worker mobility; (iv) improvement of labor-market information and services; and (v) exchange of information, knowledge, and educational innovations. Developing joint degrees and research programs, promoting the use of ICT tools to enhance regional cooperation in education, and strengthening linkages between the industry and education institutions were also mentioned as potential areas for collaboration going forward.

Conclusions and Recommendations

A. Potential Areas for Regional Cooperation in Education

98. The preceding chapters highlighted several challenges that offer an opportunity for fruitful regional cooperation in the context of CAREC. Several deserve priority, and may also lay the foundations for an eventual deepening of regional cooperation. However, some of the areas are most appropriately addressed through country-level support (e.g., investing in facilities and equipment, training teachers and faculty, and developing appropriate policies and standards). The priority areas described below offer the most promising opportunities for regional cooperation.

1. Harmonizing Education and Skill Standards

99. The significant variations that exist in educational standards and quality control mechanisms in the CAREC countries hamper comparability and mutual recognition of educational qualifications and are a constraint on the mobility of education sector professionals, students, and skilled workers within the CAREC region. They also limit the education and employment opportunities open to students and workers from the CAREC region in countries outside the region.

100. The CAREC countries' education systems come from several different traditions. Since independence, the previously uniform education systems of the former Soviet Union republics moved away from one another, resulting in significant gaps in standards and mutual recognition. A few CAREC countries moved toward compliance with higher education standards under the Bologna Process, while progress in other CAREC countries is modest.

101. The lack of uniformity in higher education standards, and the progress achieved by several countries in raising standards and aligning with the Bologna Process, suggest that a broad-based effort to harmonize standards and improve mutual recognition of qualifications across the region may be an area in which CAREC can provide support. Harmonization or strengthened mutual recognition of TVET and skills standards will also enhance labor mobility across the region. These are challenging tasks that will require close and sustained cooperation, a task for which a regional cooperation platform such as CAREC may offer a comparative advantage.

2. Enhancing Student and Worker Mobility

102. Within the context of harmonized standards and strengthened mutual recognition of qualifications, there is scope to develop a wide range of specific initiatives to promote student and worker mobility. These include the possible establishment of a regional qualifications framework, coordination between national quality assurance bodies, and the establishment of a harmonized credit transfer system.⁵⁵ Recognizing the diversity and dispersion of the CAREC countries, and the different levels of student and worker mobility between the countries, CAREC may need to adopt a differentiated approach working with specific subgroups of countries.

3. Strengthening Labor–Market Information and the Movement of Labor

103. Several of the CAREC countries are major exporters of labor and are highly reliant on migrant workers' remittances for foreign exchange and employment. Others are net importers of labor. The flows of migrant workers from and within the CAREC region are susceptible to economic shifts during downturns leading to major return flows of migrants. These have implications for the economies of the sending countries, and result in significant hardship for the return migrants and their families. One of the challenges facing CAREC countries is the mismatch between skills demand and supply, and this is often due to the limited availability of systematic information on labor–market needs. If information is lacking at the national level, the problem is likely exacerbated at the regional level.

104. A regional labor–market information system would facilitate the planning of labor–market and TVET policies in both the sending and receiving countries. The RLMIS would help the CAREC countries to understand future skill needs in the region. It could help higher education and TVET institutions in the CAREC countries to ensure their programs are responsive to labor–market needs. It could also in due course serve as the basis for establishing regional job search and placement services. The initiative would require sustained cooperation among the CAREC countries, a task for which CAREC may have a comparative advantage.

4. Facilitating the Exchange of New Ideas and Approaches

105. The global economy is evolving quickly, with new technologies such as artificial intelligence and robotics emerging. These are putting pressure on national economies and the private sector to remain competitive. They are also placing new demands on education and TVET, which need to keep pace with technological change and develop new education approaches. Given the geographical isolation of many of the CAREC countries, it will be particularly important to ensure their education and TVET systems keep abreast of new developments, remain competitive, and are not left behind. As new educational approaches are developed, CAREC can play an important role in facilitating the exchange of new ideas and educational technologies.

⁵⁵ Central and West Asia Department. 2018. *Briefing Note: Promoting Central Asia Regional Economic Cooperation Program Initiative: Promoting Skills Development in Central Asia*. Manila: ADB.

106. In taking forward regional projects and joint initiatives in the four areas outlined above, CAREC needs to adopt a phased approach and identify potential entry points in line with member countries' priorities that could eventually pave the way for deeper cooperation and integration in the education sector.

B. Recommendations

107. In the short term, this report recommends that CAREC development partners consider TA grant financing for the possible topics indicated in Table 3.

Table 3: Possible Topics for Technical Assistance for the Education Sector under CAREC

Topic	Summary Content
Harmonizing higher education standards and quality control in selected CAREC countries	This focused TA activity may need to be implemented as a series of TA projects. It would review the current status of harmonization among CAREC countries, identify major gaps and discrepancies, and provide support to address gaps and increase the degree of harmonization. Follow-up actions could be linked to country-level activities under loan or TA projects.
Regional cooperation in higher education under CAREC	A broad TA to provide resources for a wide range of studies and workshops on higher education. Topics could include the improvement of quality across the region, establishment of joint degree programs, improving the portability of credits between institutions, strengthening faculty exchanges, and strengthening student exchanges.
Establishing a regional labor-market information system for selected CAREC countries	This activity may need to be implemented as a series of TA projects. It would start with a review of existing labor-market information systems at the country level, determine the framework of a regional system, and the necessary stages for establishing the regional labor-market information system. Follow-up actions could be linked to country-level activities under loan or TA projects.
TA projects among subgroups of countries to support specific harmonization initiatives	These TA projects would involve subgroups of countries with a strong common concern for harmonization under the broader objectives CAREC pursues. This could mean providing support for a small group of countries that are preparing to join the EHEA. Following the model of support provided under GMS, it could also entail providing support for a small group of countries moving toward mutual recognition of skill standards.

CAREC = Central Asia Regional Economic Cooperation Program, EHEA = European Higher Education Area, GMS = Greater Mekong Subregion, TA = technical assistance.

Source: CAREC Secretariat

108. Given that the education sector is new for CAREC, and based on the analysis of the priority needs and areas that offer scope for regional cooperation, it is recommended that CAREC establish an expert group to continue and advance the regional education agenda. The scope of work of such expert group should be defined based on themes of regional relevance such as quality assurance and harmonization of standards, academic mobility, improvement of labor–market information, and the use of ICT in promoting regional cooperation in education. The establishment of such expert group will help confirm the priority issues to be addressed in the education sector, determine the initial goals to be achieved, firm up the scope of the work to be undertaken, and establish work programs setting out the actions required to move toward these goals. Given the importance of effectively responding to labor–market needs, it is recommended that the expert group should be composed not only of senior officials in charge of higher and professional education and skills development, but also education and training institutions; and representatives from the industry. Following an initial 1–2 years of operations, CAREC would review the expert group’s structure and consider whether changes and adjustments are required.

109. In the medium to long term, CAREC could consider (i) developing a strategic framework and action plan for the sector, (ii) the scope for lending for regional projects, and (iii) whether there is a need for establishing a sector committee.

- (i) The CAREC countries will ultimately need a strategic framework to guide their cooperation in education and skills. However, rather than adopting a top–down approach, it may be more practical to start by addressing several of the key priorities outlined in Table 3, and defer consideration to a broader strategic approach until initial cooperation is established. This was the experience of the GMS, which started with a wide range of activities and project–level cooperation under its working group, and waited over a decade to establish a strategic framework.
- (ii) Once the expert group has been established, is operational, and clearly defines its scope of work, which can be expected to take 1–2 years, CAREC can consider broadening its activities in the education sector and consideration can be given to regional lending. Harmonizing standards and strengthening regional labor markets are both long–term tasks, and are likely to require a sustained effort over several years. There are two approaches to providing loan financing to support regional cooperation for education and skills. The first entails incorporating regional approaches being promoted under CAREC into country–level loan projects. The second involves providing loan financing for regional projects, e.g., to support the operations of one or several regional universities. The GMS adopted the first approach that fits comfortably with an approach based on standards and harmonization. Incorporating regional measures developed under the CAREC expert group into country–level loan projects is a more straightforward approach to providing a link between regional cooperation and loan financing. For example, a multicountry TA to strengthen the mutual recognition of skill standards in several countries could be supported by components incorporated in TVET loans to these countries. This approach avoids the administrative complexities of lending to a regional institution.

- (iii) The need to establish one or more sector committee(s) for the human development cluster should also be considered in the medium term, once the work of the expert group takes shape. In preparing an eventual proposal for the establishment of a sector committee, CAREC will need to consider whether the committee can effectively cover TVET, labor–market issues and tertiary education, which in most CAREC countries will require the involvement of at least two government ministries, agencies, or departments. Given the broad scope of the human development cluster, CAREC will also need to consider whether, following the GMS model, health should be included under the same sector committee. This would entail the involvement of a third group of government counterpart agencies—the ministries of health.

Appendix

Key Education and Human Resource Indicators for the CAREC Countries (2017 or most recent year with data)

Indicator	AFG	AZE	GEO	KAZ	KGZ	MON	PAK	PRC	TAJ	TKM	UZB
Government expenditure on education (% of GDP) ^a	4.21 ^b	2.90	3.78	2.98	6.59	5.18	2.49	1.89 (1999)	5.23 (2015)	3.05 (2012)	6.91 ^b
Adult Literacy Rate (%) ^c	38.17	99.81 (2016)	99.76	99.79	99.5	98.37	56.44	96.36	99.78	99.69	100
Gross enrollment ratio in tertiary education (%) ^d	8.48 (2014)	27.07 ^e	57.53	49.57	43.65	64.84	10.12	51.01	30.87	7.97 (2014)	9.15
Human Development Index rating ^f	0.498	0.757	0.780	0.800	0.672	0.741	0.562	0.752	0.650	0.706	0.710
World Bank Human Capital Index (quartile)	4	3	3	1	3	3	4	3	2	–	–

AFG = Afghanistan, AZE = Azerbaijan, CAREC = Central Asia Regional Economic Cooperation, PRC = People's Republic of China, GDP = gross domestic product, GEO = Georgia, KAZ = Kazakhstan, KGZ = Kyrgyz Republic, MON = Mongolia, PAK = Pakistan, TAJ = Tajikistan, TKM = Turkmenistan, UZB = Uzbekistan.

^a 2016 figures unless otherwise indicated.

^b United Nations Educational, Scientific and Cultural Organization Institute for Statistics estimation.

^c 2015 figures unless otherwise indicated.

^d 2017 figures unless otherwise indicated.

^e National estimation.

^f Rank in 2015; rank among the 188 countries presented in Human Development Report 2016 of the United Nations Development Programme.

Sources: ADB. *Key Indicators for Asia and the Pacific 2018* (Literacy Rate for AZE 2016 and Human Development Index ranking); United Nations Educational, Scientific and Cultural Organization, Institute for Statistics Database. UIS.Stat. <http://data.uis.unesco.org/> (accessed 3 November 2018); World Bank. <http://www.worldbank.org/en/publication/human-capital>.

References

- American University of Central Asia. 2018. <https://www.auca.kg/>.
- Asian Development Bank. 2009. *Greater Mekong Subregion. Strategic Framework and Action Plan for Human Resource Development 2009–2012*. Manila.
- . 2009. *Technical Assistance for Implementing the GMS HRD Strategic Framework and Action Plan (Phase 1)*. Manila.
- . 2011. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to Mongolia for the Higher Education Reform Project*. Manila. [https://lnadbg1.adb.org/sec0063p.nsf/docbyno/36cb766f87c590f64825794200243adb/\\$file/r103-11.pdf](https://lnadbg1.adb.org/sec0063p.nsf/docbyno/36cb766f87c590f64825794200243adb/$file/r103-11.pdf).
- . 2012. *CAREC 2020. A Strategic Framework for the Central Asia Regional Economic Cooperation Program 2011–2020*. Manila.
- . 2012. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranches Financing Facility for the Higher Education in the Pacific Investment Program*. Manila.
- . 2013. *Greater Mekong Subregion. Strategic Framework and Action Plan for Human Resource Development 2013–2017*. Manila.
- . 2014. *Report and Recommendation of the President to the Board of Directors. Proposed Loan to Mongolia: for the Skills for Employment Development Project*. Manila. [https://lnadbg1.adb.org/sec0086p.nsf/docbyno/65330e71b9c9df1448257dc600282ef5/\\$file/r180-14.pdf](https://lnadbg1.adb.org/sec0086p.nsf/docbyno/65330e71b9c9df1448257dc600282ef5/$file/r180-14.pdf).
- . 2015. *Assessment of Higher Education. Kyrgyz Republic*. Manila.
- . 2015. *Assessment of Higher Education. Tajikistan*. Manila.
- . 2015. *Report and Recommendation of the President to the Board of Directors: Proposed Loan, Grant, and Administration of Grant to the Republic of Tajikistan for the Strengthening Technical and Vocational Education and Training Project*. Manila. [https://lnadbg1.adb.org/sec0062p.nsf/docbyno/a8f2c759af6bf20248257f2a0004fb49/\\$file/r109-15.pdf](https://lnadbg1.adb.org/sec0062p.nsf/docbyno/a8f2c759af6bf20248257f2a0004fb49/$file/r109-15.pdf).
- . 2016. *CAREC 2020 Midterm Review*. Manila.
- . 2017. *CAREC 2030. Connecting the Region for Shared and Sustainable Development*. Manila.
- . 2017. *Report and Recommendation of the President to the Board of Directors: Proposed Grants to the Kyrgyz Republic: for the Skills for Inclusive Growth Sector*

- Development Program*. Manila. [https://lnadbgl.adb.org/sec0062p.nsf/docbyno/22434ef839bd1b954825822100207d98/\\$file/r104-17.pdf](https://lnadbgl.adb.org/sec0062p.nsf/docbyno/22434ef839bd1b954825822100207d98/$file/r104-17.pdf).
- . 2017. *Reinventing Mutual Recognition Arrangements. Lessons from International Experiences and Insights in the ASEAN Region*. Manila. <https://www.adb.org/sites/default/files/publication/224071/reinventing-mras-asean.pdf>.
- . 2018. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the People's Republic of China for the Shanxi Technical and Vocational Education and Training Development Demonstration Project*. Manila.
- . 2018. *Asian Development Outlook 2018: How Technology Affects Jobs*. Manila.
- . 2018. *Asian Economic Integration Report 2018*. Manila. <https://www.adb.org/publications/asian-economic-integration-report-2018>.
- . 2018. *The Ha Noi Action Plan*. Manila.
- . 2018. *Strategy 2030. Achieving a Prosperous, Inclusive, Resilient and Sustainable Asia and the Pacific*. Manila.
- . 2018. Terms of Reference of Expert to Prepare Scoping Study. Manila.
- . Central and West Asia Department. 2018. *Briefing Note: Promoting Central Asia Regional Economic Cooperation Program Initiative: Promoting Skills Development in Central Asia*. Manila: ADB.
- Association of Southeast Asian Nations. ASEAN Education Ministers Meeting (ASED). <https://asean.org/asean-socio-cultural/asean-education-ministers-meeting-ased/>.
- European Commission. The Bologna Process and the European Higher Education Area. https://ec.europa.eu/education/policy/higher-education/bologna-process_en.
- . 2011. *Overview of the Higher Education Systems in Tempus Countries. Central Asia*. Brussels.
- European Union. 2004. The Copenhagen Process—The European Vocational Education and Training Policy—Frequently Asked Questions. Memorandum. 10 December.
- European Union. Enhanced EU Cooperation in Vocational Education and Training. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=legisum%3Aef0018>.
- . 2018. International Cooperation and Development website. https://ec.europa.eu/europeaid/regions/african-caribbean-and-pacific-acp-region/acp-multi-country-cooperation/education_en.
- Gul, S. 2017. University of Central Asia and Pakistan to be Established in Islamabad. *Islamabad Scene*. 1 August. <https://www.islamabadscene.com/university-of-central-asia-and-pakistan-to-be-established-in-islamabad/>.
- Hayward, F. 2015. *Transforming Higher Education in Afghanistan: Success Amidst Ongoing Struggles*. Ann Arbor: Society for College and University Planning.
- Livny, E. and D. Keshelava. 2018. *The Paradox of Over-Education in Georgia*. <https://blogs.adb.org/blog/paradox-over-education-georgia>.

- Nazarbayev University. 2017. Recent Higher Education Reforms in Kazakhstan: The Case of Nazarbayev University. PowerPoint presentation at the Regional Education Forum. Bishkek. 7–8 July 2017.
- Organisation for Economic Co-operation and Development. 2011. *Developing Skills in Central Asia through Better Vocational Education and Training Systems. Private Sector Development Policy Handbook*. Paris.
- Salmi, J. 2016. “Almaty–Bishkek Corridor Initiative: The Contribution of Tertiary Education and TVET.” Final report prepared for the Asian Development Bank. Manila.
- Shakil, S. 2018. Higher Education System and Institutions, Pakistan. Unpublished.
- Top University Rankings 2018. <https://www.topuniversities.com/university-rankings/world-university-rankings/2019>.
- University of Central Asia. 2017. Serving the Development of Central Asia’s Mountain Societies. PowerPoint presentation at the Regional Education Forum. Bishkek. 7–8 July 2017.
- World Bank. 2007. Higher Education in Central Asia. The Challenges of Modernization. Washington, DC.
- . World Development Report 2019: The Changing Nature of Work. <http://www.worldbank.org/en/publication/wdr2019>.
- World Economic Forum. 2018. *The Future of Jobs*. Washington, DC.

Education and Skills Development under the CAREC Program

A Scoping Study

The global employment and skills landscape is changing fast in the fourth industrial revolution. Investing in human development is essential to meet the needs of rapidly evolving competitive labor markets and achieve sustainable economic growth. Recognizing this, the CAREC Program's 2030 strategy features human development as one of its five operational priorities and specifies education as a key area of focus. This report examines how CAREC member countries can collaborate for education and skills development. It identifies important opportunities to harmonize education and skill standards, enhance student and worker mobility, strengthen labor market information and movement, and facilitate knowledge exchange.

About the Central Asia Regional Economic Cooperation Program

The Central Asia Regional Economic Cooperation (CAREC) Program is a partnership of 11 member countries and development partners working together to promote development through cooperation, leading to accelerated economic growth and poverty reduction. It is guided by the overarching vision of “Good Neighbors, Good Partners, and Good Prospects.” CAREC countries include: Afghanistan, Azerbaijan, the People's Republic of China, Georgia, Kazakhstan, the Kyrgyz Republic, Mongolia, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan.

About the Asian Development Bank

ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 68 members —49 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.



CAREC SECRETARIAT

www.carecprogram.org

ASIAN DEVELOPMENT BANK

6 ADB Avenue, Mandaluyong City
1550 Metro Manila, Philippines
www.adb.org