

**FOR OFFICIAL USE ONLY**

R76-17  
Corrigendum 1  
18 September 2017

Corrigendum to Document R76-17  
Proposed Results-Based Loan and  
Technical Assistance Grant  
Guangxi Modern Technical and Vocational Education  
and Training Development Program  
(People's Republic of China)

The following corrections have been made in the above document to match the disbursement schedule with target years for disbursement-linked indicators (DLI) 3 and 7.

- |   |  |
|---|--|
| (i) Page 30, Appendix 3, Table A3.3: Disbursement Schedule                  | For DLI 3, under 2018 delete "7.0," and under 2019 and 2020 replace "5.0" with "8.5"   |
|   | For DLI 7, under 2018 add "9.0," and under 2019 delete "9.0"   |
|   | For Total, under 2018 replace "54.0" with "56.0;" under 2019 replace "52.5" with "47.0;" and under 2020 replace "76.0" with "79.5" |
| (ii) Linked Document 1: Loan Agreement, page 15, Attachment 1 to Schedule 3 | For DLI 3, under 2018 delete "7.0," and under 2019 and 2020 replace "5.0" with "8.5"   |
|   | For DLI 7, under 2018 add "9.0," and under 2019 delete "9.0"   |

(iii) Linked Document 18: Program Implementation Document, page 26, Table 5: Expected Disbursement Schedule

For Total, under 2018 replace "54.0" with "56.0;" under 2019 replace "52.5" with "47.0;" and under 2020 replace "76.0" with "79.5"

For DLI 3, under 2018 delete "7.0," and under 2019 and 2020 replace "5.0" with "8.5"

For DLI 7, under 2018 add "9.0," and under 2019 delete "9.0"

For Total, under 2018 replace "54.0" with "56.0;" under 2019 replace "52.5" with "47.0;" and under 2020 replace "76.0" with "79.5"



**FOR OFFICIAL USE ONLY**

(For consideration by the Board on or about 20 September 2017)

R76-17  
30 August 2017

Proposed Results-Based Loan and  
Technical Assistance Grant  
Guangxi Modern Technical and Vocational Education  
and Training Development Program  
(People's Republic of China)

1. The Report and Recommendation of the President (RRP: PRC 49308-002) on the proposed results-based loan and technical assistance grant to the People's Republic of China for the Guangxi Modern Technical and Vocational Education and Training Development Program is circulated herewith.
2. This Report and Recommendation should be read with *Country Operations Business Plan: People's Republic of China, 2017–2019*, which was circulated to the Board on 17 April 2017 (DOC.IN.102-17).

For Inquiries: A. Maruyama, East Asia Department  
(Ext. 6653)  
F. Connell, Office of the General Counsel  
(Ext. 5521)



# Report and Recommendation of the President to the Board of Directors

---

Project Number: 49308-002  
August 2017

## Proposed Results-Based Loan and Technical Assistance Grant People's Republic of China: Guangxi Modern Technical and Vocational Education and Training Development Program

Distribution of this document is restricted until it has been approved by the Board of Directors. Following such approval, ADB will disclose the document to the public in accordance with ADB's Public Communications Policy 2011.

Asian Development Bank

## **CURRENCY EQUIVALENTS**

(as of 23 August 2017)

Currency unit – yuan (CNY)

CNY1.00 = \$0.1501

\$1.00 = CNY6.6641

## **ABBREVIATIONS**

ADB	–	Asian Development Bank
ASEAN	–	Association of Southeast Asian Nations
DLI	–	disbursement-linked indicator
GED	–	Guangxi Education Department
GZAR	–	Guangxi Zhuang Autonomous Region
M&E	–	monitoring and evaluation
PAP	–	program action plan
PRC	–	People's Republic of China
RBL	–	results-based lending
TA	–	technical assistance
TVET	–	technical and vocational education and training

## **NOTE**

In this report, "\$" refers to United States dollars.

<b>Vice-President</b>	S. Groff, Operations 2
<b>Director General</b>	A. Konishi, East Asia Department (EARD)
<b>Director</b>	S. Penjor, Urban and Social Sectors Division, EARD
<b>Team leaders</b>	A. Maruyama, Education Specialist, EARD L. Wang, Senior Project Officer (Urban Development), EARD
<b>Team members</b>	F. Connell, Principal Counsel, Office of the General Counsel M. David, Senior Operations Assistant, EARD Z. Karimova, Principal Institutional Coordination Specialist, EARD M. Radstake, Senior Safeguards Specialist (Resettlement), EARD T. Rajadel, Education Specialist, Sustainable Development and Climate Change Department (SDCC) S. Sasaki, Senior Environment Specialist, EARD G. Tadevosyan, Social Development Specialist (Safeguards), EARD T. Yabut, Portfolio Management Officer, EARD
<b>Peer reviewer</b>	K. Veal, Senior Education Specialist, SDCC

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

## CONTENTS

	<b>Page</b>
RESULTS BASED PROGRAM AT A GLANCE	
I. THE PROPOSAL	1
II. THE PROGRAM	1
A. Strategic Context	1
B. Program Rationale	3
C. Program Scope	4
D. Program Results	5
E. Expenditure Framework and Financing Plan	6
F. Capacity Development and Program Action Plan	8
G. Technical Assistance	8
H. Implementation Arrangements	8
III. SUMMARY OF ASSESSMENTS	9
A. Program Technical Assessments	9
B. Program Systems Assessments	9
C. Integrated Risk Assessment and Mitigating Measures	10
IV. ASSURANCES	11
V. RECOMMENDATION	11
APPENDIXES	
1. Design and Monitoring Framework	12
2. List of Linked Documents	15
3. Disbursement-Linked Indicators, Verification Protocols, and Disbursement Schedule	16

## RESULTS BASED PROGRAM AT A GLANCE

<b>1. Basic Data</b>		<b>Project Number:</b> 49308-002	
<b>Project Name</b>	Guangxi Modern Technical and Vocational Education and Training Development Program	<b>Department /Division</b>	EARD/EASS
<b>Country Borrower</b>	China, People's Republic of People's Republic of China	<b>Executing Agency</b>	Guangxi Zhuang Autonomous Region Govt (GZARG)
<b>2. Sector</b>	<b>Subsector(s)</b>	<b>ADB Financing (\$ million)</b>	
✓ <b>Education</b>	Technical and vocational education and training		250.00
		<b>Total</b>	<b>250.00</b>
<b>3. Strategic Agenda</b>	<b>Subcomponents</b>	<b>Climate Change Information</b>	
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive Pillar 3: Extreme deprivation prevented and effects of shocks reduced (Social Protection)	Climate Change impact on the Project	Low
Regional integration (RCI)	Pillar 2: Trade and investment		
<b>4. Drivers of Change</b>	<b>Components</b>	<b>Gender Equity and Mainstreaming</b>	
Governance and capacity development (GCD)	Anticorruption Client relations, network, and partnership development to partnership driver of change Institutional development Institutional systems and political economy Organizational development Public financial governance	Some gender elements (SGE)	✓
Knowledge solutions (KNS)	Application and use of new knowledge solutions in key operational areas Pilot-testing innovation and learning		
Partnerships (PAR)	Commercial cofinancing Implementation International finance institutions (IFI) Official cofinancing Private Sector South-South partner		
Private sector development (PSD)	Public sector goods and services essential for private sector development		
<b>5. Poverty and SDG Targeting</b>		<b>Location Impact</b>	
Geographic Targeting	No	Rural	Medium
Household Targeting	No	Urban	Medium
SDG Targeting	Yes		
SDG Goals	SDG1, SDG4, SDG8		
<b>6. Risk Categorization:</b>	Complex		
<b>7. Safeguard Categorization</b>	<b>Environment:</b> B	<b>Involuntary Resettlement:</b> B	<b>Indigenous Peoples:</b> B
<b>8. Financing</b>			
<b>Modality and Sources</b>		<b>Amount (\$ million)</b>	
<b>ADB</b>		<b>250.00</b>	
Sovereign Results Based Lending (Regular Loan): Ordinary capital resources		250.00	
<b>Cofinancing</b>		<b>0.00</b>	
None		0.00	
<b>Counterpart</b>		<b>9,772.00</b>	
Beneficiaries		1,801.00	
Government		6,833.00	
Others		1,138.00	
<b>Total</b>		<b>10,022.00</b>	
Note: An attached technical assistance will be financed on a grant basis by the Technical Assistance Special Fund (TASF-OTHERS) in the amount of \$600,000.			

## I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed results-based loan to the People's Republic of China (PRC) for the Guangxi Modern Technical and Vocational Education and Training Development Program. The report also describes proposed technical assistance (TA) for Support for the Guangxi Modern Technical and Vocational Education and Training Development, and if the Board approves the proposed loan, I, acting under the authority delegated to me by the Board, approve the TA.<sup>1</sup>

2. The program will provide, in 2017–2022, timely and essential support for the establishment of a technical and vocational education and training (TVET) system that provides graduates with better employment opportunities in industries in Guangxi Zhuang Autonomous Region (GZAR) by enhancing the industry relevance of TVET, improving the quality of TVET, increasing the inclusiveness of TVET, and expanding the role of TVET in regional economic development.<sup>2</sup> The proposed results-based lending (RBL) program is critical for GZAR to implement a comprehensive TVET system reform package with a focus on results and system improvements, in accordance with the GZAR's Thirteenth Five-Year Plan, 2016–2020, which is in the second year of implementation. It is expected to create strong synergetic effects, together with the Guangxi Regional Cooperation and Integration Promotion Investment Program, on cross-border cooperation and training, particularly benefiting bordering Viet Nam.<sup>3</sup>

## II. THE PROGRAM

### A. Strategic Context

3. The economic structure of GZAR has undergone significant change since 2000, with primary industry shrinking and secondary industry expanding, supported by steady economic growth. The gross domestic product growth rate recorded in 2015 was 8.1%, higher than the national average of 6.9%. Yet GZAR remains one of the poorer provinces, with per capita gross domestic product of CNY37,712, ranking 27th out of 31 provinces. About 9.9% of the population is living below the poverty line compared with the national average of 5.2%. A significant part of GZAR is mountainous and it has the largest ethnic minority population in the PRC—accounting for 37.1% of GZAR's total population in 2015. Nevertheless, GZAR's growth prospects are robust because of its strategic location, and it aspires to become the PRC's gateway to the Association of Southeast Asian Nations (ASEAN), a strategic pivot in the opening up and development of the western and central regions, and an important pathway connecting the Silk Road Economic Belt and the 21st Century Maritime Silk Road (Belt and Road Initiative).

4. However, concern is growing that shortages of labor, especially skilled labor, constrain the socioeconomic development of GZAR. With low production costs and improvements in infrastructure, logistics, and transport systems, enterprises in other parts of the PRC started investing in GZAR, transforming it into a burgeoning production and processing base. As the

---

<sup>1</sup> The design and monitoring framework is in Appendix 1.

<sup>2</sup> The Asian Development Bank (ADB) provided program preparatory TA for Guangxi Modern Technical and Vocational Education and Training Development Program (TA 9096-PRC).

<sup>3</sup> ADB. 2016. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranchise Financing Facility to the People's Republic of China for the Guangxi Regional Cooperation and Integration Promotion Investment Program*. Manila; Government of the People's Republic of China, Guangxi Development and Reform Commission. 2015. *Thirteenth Five-Year Plan on Guangxi Zhuang Autonomous Region Economic and Social Development Plan, 2016–2020*. Nanning.

GZAR government promotes the development of “14+10” industries (14 key traditional industries and 10 emerging and strategic industries that require intermediate- and high-level skills) for the Thirteenth Five-Year Plan period, 2016–2020, skilled labor shortages are becoming acute.<sup>4</sup> Although TVET has been a source of skilled labor supply, students typically do not opt for TVET in GZAR because of its poor relevance and quality.<sup>5</sup> Dropout rates at secondary TVET schools in GZAR are high. Completion and employment data indicate that not all TVET students graduate with the necessary competencies in the areas in which they were trained (67% in 2016). Consequently, even though about 95% of TVET graduates are guaranteed employment in industries nearby upon graduation, over half of them (51% in 2016) leave their first job within 6 months.

5. The underlying issue is the poor relevance and quality of TVET. The TVET system in GZAR, comprising 313 secondary TVET schools, 36 tertiary TVET colleges, and 12 application-oriented universities, is under-resourced and supply-driven.<sup>6</sup> Course offerings at TVET institutions, the teaching and learning environment and materials, and practical training facilities do not adequately match the economic structure of GZAR, and TVET provision is not well aligned with the needs of GZAR’s priority industries. Although school–enterprise cooperation has increased, the involvement of employers and industry in the development of curriculum and training materials, establishment of practical training facilities, and delivery of practical training has been largely ineffective without clearly defined competencies required for graduates, which reduces the relevance of TVET.

6. Moreover, TVET institutions, especially secondary TVET schools in rural counties, lag in quality, and no system is in place to ensure consistent quality across TVET institutions. As the PRC does not have a national qualifications framework, provincial education departments are expected to develop detailed quality standards for TVET institutions in line with strategic directions set by the Ministry of Education for quality assurance. Qualified teachers are in short supply, resulting in high student–teacher ratios and low proportions of technical teachers with a teaching license and industry experience.

7. Such poor relevance and quality of TVET have been the main cause of dropouts from secondary TVET schools, followed by financial difficulties faced by students from poor families. This has negative impacts on poverty reduction, since the percentage of students from poor families is as high as 80% in some TVET institutions, and dropouts often end up with low paying, unstable, and vulnerable employment. Although GZAR is one of the five ethnic minority autonomous regions in the PRC, TVET has not contributed much to promote and rejuvenate its rich ethnic culture and traditions. Additionally, despite its strategic location, exchanges and regional cooperation activities between TVET institutions in GZAR and ASEAN countries have been limited in scope and effectiveness, lacking a long-term strategy to encourage cross-border trade and investment, and technology transfer.

---

<sup>4</sup> “14+10” industries refer to 14 industries with an annual output value of over CNY100 billion each (food; automobile; petrochemical; electric power; nonferrous metal; metallurgy; machinery; building materials; paper making; electronic information; pharmaceutical manufacturing; textile clothing and leather; biology; and ship building, repair, and ocean engineering equipment) and 10 emerging and strategic industries (new materials; new energy; energy-saving and environmental protection; marine economy; biopharmaceutical; new information technology; new energy vehicles; biological agriculture; advanced equipment manufacturing; and regimen, longevity, and health).

<sup>5</sup> In 2015 the average years of schooling for people aged 15–64 years old in GZAR was 8.60 years.

<sup>6</sup> Application-oriented means having engineering and applied science specializations, and practical training orientation.

8. To establish a modern TVET system, the GZAR government issued the GZAR Modern TVET System Development Plan, 2015–2020 and associated 10 implementation plans. The 10 implementation plans cover priority areas identified in the GZAR Modern TVET System Development Plan, including (i) use of information and communication technology, (ii) infrastructure development, (iii) quality improvement, (iv) enhancement of technical teachers' industry experience, (v) increase in courses of study and practical training facilities in GZAR's priority industries, (vi) TVET group development, (vii) TVET park development, (viii) use of TVET to support poverty alleviation, (ix) ethnic culture inheritance and innovation, and (x) regional and international cooperation.

## **B. Program Rationale**

9. The program builds on the experience of the Asian Development Bank (ADB) and other development partners with lending and nonlending operations for TVET, including RBL, in the PRC, and will support the implementation of the GZAR Modern TVET System Development Plan.<sup>7</sup> Lessons have been reflected in the program, including the importance of sustained incremental adjustments and improvements to the existing system based on national and international good practices, rather than introducing new practices in a fragmented manner, and the need for institutional mechanisms to engage industries in TVET. The program is aligned with two of the strategic priorities set out in ADB's country partnership strategy for the PRC, 2016–2020: supporting inclusive economic growth, and promoting regional cooperation and integration.<sup>8</sup>

10. The use of the RBL modality is proposed for the program because the wide range of interventions required to establish a modern TVET system needs a clear focus on overall results—increased TVET graduates who entered stable employment in GZAR's industries—and system improvements, rather than a limited number of discrete interventions designed for specific TVET institutions. The program will involve 265 public TVET institutions spread across 14 municipalities of GZAR, which would be difficult if the conventional investment lending modality were used. RBL has the potential to expand the development impact of ADB financing, which accounts for only 2.5% of the total program financing (Table 4). The GZAR government has strong ownership of the program, and demonstrates deep commitment to results-based planning and management as opportunities for system improvements and institutional capacity development. RBL also provides a platform for development coordination, relying on sector-wide and programmatic approaches. ADB and German development cooperation through KfW will cofinance the program based on a common program results framework, disbursement-linked indicator (DLI) matrix, program action plan (PAP), and program implementation document.<sup>9</sup> Due diligence assessments provide assurance for effective achievement of results through RBL, with measures to strengthen government plans and program systems built into the program design.

11. ADB's involvement in the government program will add value by (i) facilitating access to knowledge, expertise, and national and international good practice in quality assurance, industry partnership, and skills and knowledge transfer cooperation between TVET institutions in GZAR

---

<sup>7</sup> ADB. 2015. *Report and Recommendation of the President to the Board of Directors: Proposed Results-based Loan and Technical Assistance Grant to the People's Republic of China for the Guizhou Vocational Education Development Program*. Manila.

<sup>8</sup> ADB. 2016. *Country Partnership Strategy: Transforming Partnership: People's Republic of China and Asian Development Bank, 2016–2020*. Manila.

<sup>9</sup> If KfW cofinancing does not materialize, the government has committed to fund the program. Financial sustainability analysis confirmed the possibility (para. 26). Program Implementation Document (accessible from the list of linked documents in Appendix 2).

and ASEAN countries; (ii) promoting dialogues and partnerships among the government, TVET institutions, enterprises, and industries; and (iii) strengthening the capacity of the government to provide guidance and supervision for TVET institutions. ADB will conduct an impact evaluation study of the key program initiatives on student learning and labor market outcomes, and employer satisfaction, using experimental and quasi-experimental approaches.<sup>10</sup> Findings of the impact evaluation study will be used to improve the government program.

### C. Program Scope

12. The program will support the implementation of the government program in public TVET institutions by focusing on key interventions designed to improve the relevance, quality, and inclusiveness of TVET; and expand regional cooperation with ASEAN countries. These interventions are expected to continue and are likely to be upgraded after completion of the government program. The scope of these programs is summarized in Table 1.

**Table 1: Program Scope**

Item	Broader Government Program	Results-Based Lending Program
<b>Outcome</b>	A modern TVET system that supports socioeconomic development in GZAR established	A TVET system that provides graduates with better employment opportunities in GZAR's industries established
<b>Key outputs</b>	Secondary and tertiary TVET better articulated, pathways to general academic education expanded, education and industry training integrated, TVET aligned with industrial development, poverty alleviated through TVET, continuing education provided, unique features of ethnic groups promoted through TVET, TVET opened up for regional and international cooperation	Industry relevance of TVET enhanced; quality of TVET improved; inclusiveness of TVET increased; role of TVET in regional economic development expanded
<b>Activity types</b>	Use of information and communication technology, infrastructure development, quality improvement; enhancement of technical teachers' industry experience, increase in courses of study and practical training facilities in GZAR's priority industries, TVET group development, TVET park development, use of TVET to support poverty alleviation, ethnic culture inheritance and innovation, and regional and international cooperation	Same as the broader government program, with focus on key interventions related to industry partnerships, quality improvement, infrastructure development, increase of technical teachers with industry experience, poverty alleviation, ethnic culture inheritance and innovation, and regional cooperation with ASEAN countries
<b>Program expenditure</b>	\$12.98 billion (2016–2020)	\$10.02 billion (2017–2020)
<b>Main financiers and the respective financing amounts</b>	Government: \$8.45 billion; public TVET institution tuition and other fees: \$2.21 billion; private TVET institutions: \$790 million; commercial banks: \$1.08 billion; ADB: \$250 million; KfW: \$200 million	ADB: \$250 million; KfW: \$200 million equivalent (in euros); government: \$6,833 million; public TVET institutions: \$1,801 million; commercial banks: \$938 million
<b>Geographic coverage</b>	GZAR	GZAR (public TVET institutions only; excluding activities categorized A under ADB's Safeguard Policy Statement [2009])
<b>Implementation period</b>	2016–2020	2017–2022

ADB = Asian Development Bank, ASEAN = Association of Southeast Asian Nations, GZAR = Guangxi Zhuang Autonomous Region, TVET = technical and vocational education and training.

Sources: ADB and GZAR government.

<sup>10</sup> Peking University has been engaged to design the impact evaluation study. A baseline survey is planned for late 2017.

## D. Program Results

13. The RBL program's impact will be socioeconomic development in GZAR accelerated (GZAR Thirteenth Five-Year Plan, 2016–2020). The outcome will be a TVET system that provides graduates with better employment opportunities in GZAR's industries established. TVET graduates who entered stable employment will increase (DLI 1), as will those with dual certification, i.e., certificates issued by the (i) TVET institution, and (ii) authorized occupational skills assessment and certification agency. The program will have four outputs.

14. **Output 1: Industry relevance of technical and vocational education and training enhanced.** The program will provide support for industry steering committees to improve TVET provision based on industry needs (DLI 2). It will also support, on a pilot basis, new methods of engaging industries in defining competencies and developing curriculum, training materials and methods, and assessments to increase courses of study being offered using competency-based training (DLI 3). The methods pilot tested will be evaluated to explore the possibility of scaling up. The program will assist the establishment of practical training facilities in GZAR's priority industries, in cooperation with enterprises (DLI 4). Modern apprenticeship programs being pilot tested by three tertiary TVET colleges will be scaled up. TVET groups will be strengthened as a mechanism for promoting partnerships between TVET institutions, enterprises, and industries.<sup>11</sup>

15. **Output 2: Quality of technical and vocational education and training improved.** The program will support TVET institutions, especially at the secondary level, in undertaking self-improvement projects to meet comprehensive provincial standards for model TVET institutions. The provincial standards cover the teaching and learning environment and materials, practical training facilities, teachers, the relevance and quality of course offerings, and employment outcomes (DLI 5). The program will also improve student–teacher ratios, especially in secondary TVET, by recruiting more teachers and providing various opportunities for training. Concurrently, it will support the introduction of a new policy and framework to increase full-time teachers in technical fields with industry experience (DLI 6). The delivery of TVET will be informed by improved monitoring and reporting of TVET institutions in a phased manner, following both the national and provincial guidelines for improved monitoring and reporting and based on the Ministry of Education's information system (DLI 7).

16. **Output 3: Inclusiveness of technical and vocational education and training increased.** The program will reduce dropouts through improvements in the relevance and quality of TVET. In addition to the PRC and GZAR governments' poverty alleviation programs, TVET students from poor families receiving financial assistance will be provided with other types of support (e.g., counseling, career guidance, employment services) to complete TVET and find employment or self-employment after graduation. The program will support the establishment of TVET bases to promote ethnic culture inheritance and innovation.<sup>12</sup>

17. **Output 4: Role of technical and vocational education and training in regional economic development expanded.** The program will support regional cooperation and integration in TVET between GZAR and ASEAN countries by promoting partnership agreements for long-term cooperation between TVET institutions and enterprises in GZAR and ASEAN countries, and increasing the number of participants in partnership training and other cross-border

<sup>11</sup> TVET groups comprise TVET institutions that offer similar courses of study in an industry, enterprises operating in the industry, and research institutes.

<sup>12</sup> It aims to develop new generations of successors of ethnic culture and traditions (e.g., Chinese medicines, traditional folk crafts, ethnic art, food, and architecture) to prevent them from disappearing and rejuvenate them.

training programs between TVET institutions and enterprises in GZAR and ASEAN countries (DLI 8). It will also increase the number of students from ASEAN countries who receive vocational education certificates from TVET institutions in GZAR.

18. To focus on the main elements of a modern TVET system, eight DLIs have been selected. Large portions of ADB financing will be allocated to DLIs 1, 4, and 5. An increased number of TVET graduates who attain stable employment is the key outcome of any modern TVET system (DLI 1). By the end of the program, the percentage of TVET graduates who stay in their first job for more than 6 months will increase from 49% to 54% (about 74,500 graduates over the program period). This indicates an improved TVET system that has established mechanisms for producing TVET graduates with competencies relevant to employers. Enhancing practical training facilities in GZAR's priority industries (DLI 4) is indispensable in addressing the increasingly acute shortages of skilled labor, while raising the number of TVET institutions that meet comprehensive standards for model TVET institutions is essential for ensuring the quality of TVET (DLI 5). DLIs and disbursement allocation are summarized in Table 2.

**Table 2: Disbursement-Linked Indicators**

Indicator	Disbursement Allocated (\$ million)	Share of Total ADB Financing (%)
<b>Outcome</b>		
1. TVET graduates who entered stable employment increased	40.0	16.0
<b>Outputs</b>		
<b>Industry relevance of TVET enhanced</b>		
2. TVET provision based on industry needs improved	20.0	8.0
3. Competency-based approach in TVET piloted	22.5	9.0
4. Practical training facilities established in priority industries	47.5	19.0
<b>Quality of TVET improved</b>		
5. Model TVET institutions established	40.0	16.0
6. TVET teachers with industry experience increased	37.5	15.0
7. TVET delivery informed by stronger management information	22.5	9.0
<b>Role of TVET in regional economic development expanded</b>		
8. Contribution of TVET to promote regional cooperation and integration enhanced	20.0	8.0
<b>Total</b>	<b>250.0</b>	<b>100.0</b>

ADB = Asian Development Bank, TVET = technical and vocational education and training.

Source: ADB.

19. The annual DLI targets, verification protocol, and disbursement schedule are in Appendix 3. Rigorous verification protocols, including independent third-party verification of the outcome DLIs and some output DLIs under the attached TA, have been established. Verification of the other DLIs will be based on policy documents published by Guangxi Education Department (GED); data generated by GED's management information system; and reviews, evaluations, and inspections conducted by GED's expert groups. ADB will perform annual review missions to verify achievement of DLIs, review program progress, and discuss annual work plans and budgets.

## **E. Expenditure Framework and Financing Plan**

20. **Program expenditures.** The RBL program expenditures are estimated to be \$10,022 million from 2017 to 2020 (Table 3).

**Table 3: Summary of Program Expenditure Framework, 2017–2020**  
(in 2015 prices)

Item	Amount (\$ million)	Share of Total (%)
<b>1. Recurrent Expenditures</b>		
Salaries and benefits	3,218.0	32.1
Subsidies	1,032.0	10.3
Administrative expenses	1,621.0	16.2
<b>2. Capital Expenditures</b>		
Materials and equipment	856.0	8.5
Building construction, maintenance, and repair	3,295.0	32.9
<b>Total</b>	<b>10,022.0</b>	<b>100.0</b>

Source: Asian Development Bank.

21. **Program financing.** The government will finance \$6,833 million, while public TVET institution tuition and other fees will contribute \$1,801 million. Loans from commercial banks will be sought to fill the funding gap.<sup>13</sup> The government will fund the program if loans or other financing cannot be obtained.<sup>14</sup> The government has requested a regular loan of \$200 million from ADB's ordinary capital resources and \$50 million from ordinary capital resources set aside for regional cooperation and integration to help finance the RBL program. The loan will have a 26-year term, including a grace period of 5 years; an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; a commitment charge of 0.15% per year; and such other terms and conditions set forth in the draft loan agreement. Based on the straight-line method, the average maturity is 15.75 years, and the maturity premium payable to ADB is 0.10% per year. KfW is expected to provide cofinancing of \$200 million equivalent (in euros) on a joint collaborative basis.<sup>15</sup> The financing plan is summarized in Table 4.

**Table 4: Program Financing Plan**

Source	Amount (\$ million)	Share of Total (%)
Government	6,833.0	68.2
Public TVET institution tuition and other fees	1,801.0	18.0
Commercial banks	938.0	9.3
Cofinancier	200.0	2.0
Asian Development Bank		
Ordinary capital resources (loan)	250.0	2.5
<b>Total</b>	<b>10,022.0</b>	<b>100.0</b>

TVET = technical and vocational education and training.

Source: Asian Development Bank.

22. **Disbursement arrangements.** Disbursement will be made in accordance with ADB's *Loan Disbursement Handbook* (2017, as amended from time to time) and detailed arrangements agreed between the government and ADB. The loan proceeds will be disbursed to a dedicated account to be opened by the government based on the verified achievement of DLIs. The government will ensure that the total program expenditures exceed the total loan amount withdrawn. Advance financing is allowed to address financing requirements. The government will refund any advance financing amount outstanding if DLIs are not achieved. The outstanding advance will not exceed the ceiling of 25% of the loan amount. Financing of prior results achieved not more than 12 months before loan signing is allowed to support the government in initiating actions required to achieve the first year's DLIs. The total amount of such financing will not exceed

<sup>13</sup> Tertiary TVET institutions sometimes seek loans from commercial banks if they cannot obtain funds from the government.

<sup>14</sup> Financial sustainability analysis confirmed that the government can provide funds if needed (para. 26).

<sup>15</sup> ADB and KfW signed a cofinancing memorandum of understanding on 5 May 2017. KfW received an official request for the loan from the government on 23 June 2017.

20% of the loan amount. The combined outstanding balance of advance financing and amount of financing for prior results must not exceed 30% of total ADB financing. Partial disbursements are allowed for DLIs 4 and 6 upon achievement of agreed percentages of the target values, because the DLI targets require efforts of all the TVET institutions rather than a limited number of TVET institutions in GZAR, and are difficult to achieve. Disbursements are also allowed for early or late achievement of DLIs. Before the disbursement of loan proceeds, GED will prepare and submit, through Guangxi Finance Department, a withdrawal application, along with evidence verifying achievement of the DLIs in accordance with the verification protocols.

## **F. Capacity Development and Program Action Plan**

23. The program will strengthen the capacity of the TVET system in GZAR to develop and implement key interventions related to model TVET institutions; practical and in-company training mechanisms for TVET teachers; monitoring and reporting of TVET institutions; industry steering committees; industry partnerships in the definition of competencies and development of curriculum, training materials and methods, and assessment; modern apprenticeship programs and TVET groups; and cooperation between TVET institutions and enterprises in GZAR and ASEAN countries. It will also improve monitoring and evaluation (M&E), fiduciary, and safeguards systems, as well as gender and social inclusion. Capacity development activities are in the PAP.<sup>16</sup>

## **G. Technical Assistance**

24. TA is attached to the program.<sup>17</sup> The TA is estimated to cost \$700,000, of which \$600,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-other sources). The TA will have four outputs: (i) mechanisms for ensuring the quality of TVET (e.g., monitoring and reporting of TVET institutions, practical and in-company training arrangements for TVET teachers) improved; (ii) measures to strengthen TVET groups and modern apprenticeship programs developed; (iii) new cooperation models between TVET institutions and enterprises in GZAR and ASEAN countries developed; and (iv) capacity of TVET administration to provide guidance and supervision for TVET institutions and manage the program strengthened by establishing systems for managing and monitoring environment, resettlement, and social impacts; and improving operating procedures, financial management, and M&E. Independent third-party verification of DLIs will be performed, and baseline and follow-up surveys for an impact evaluation study will be conducted under the TA. GED is the executing agency. The government will support the TA in the form of counterpart staff, office and meeting space, coordination support, data, information, and other in-kind contributions. The TA will be implemented upon approval of the loan until 31 December 2022.

## **H. Implementation Arrangements**

25. The GZAR government is the executing agency. Through ADB-financed multicomponent urban development projects and two ongoing TVET projects, it has developed and demonstrated solid capacity to manage and implement challenging projects. GED is the principal implementing agency and will implement the program through its program management office. A leading group for the utilization of foreign loans, comprising Guangxi Finance Department, Guangxi Development and Reform Commission, GED, and other departments with responsibilities for TVET institutions, has been established to provide strategic guidance and direction in implementing the program. The RBL program implementation will use the country's program

---

<sup>16</sup> Program Action Plan (accessible from the list of linked documents in Appendix 2).

<sup>17</sup> Attached Technical Assistance Report (accessible from the list of linked documents in Appendix 2).

fiduciary and safeguard systems. The existing financial management systems for GED and TVET institutions will be used to manage the loan proceeds. GED and TVET institutions will undertake the procurement of civil works, goods, and services.

### III. SUMMARY OF ASSESSMENTS

#### A. Program Technical Assessments

26. Technical assessments concluded that the TVET system in GZAR needs to (i) enhance its responsiveness to the human resources needs of industries, especially emerging and strategic industries; (ii) improve the quality of TVET, in particular county secondary TVET in terms of the teaching and learning environment and materials, and teachers; (iii) increase the number of teachers with industry experience; (iv) strengthen mechanisms for engaging employers and industries in TVET; (v) improve the retention of students, especially from poor families and disadvantaged backgrounds, and their employment or self-employment; and (vi) expand cooperation activities between TVET institutions and enterprises in GZAR and ASEAN countries. These findings have been incorporated in the program results framework, DLIs, and PAP. Analysis of historical and predicted data on revenues, budgets, expenditures, and results confirmed that the program expenditure framework and financing plan are robust. The program was assessed as financially sustainable, since the GZAR government reports revenue surplus annually, and TVET budget accounts for only about 2% of the GZAR government revenue.

27. Economic benefits of the program include (i) higher wages expected for graduates owing to the improved relevance and quality of TVET, and (ii) wage differentials between unskilled workers and additional numbers of graduates who have been prevented from dropping out or who have chosen TVET over work because of financial assistance and other types of support provided for students from poor families. The program is deemed economically viable, with an economic internal rate of return at 11.16%. It has a strong poverty focus, as TVET enrolls a higher percentage of students from poor families, disadvantaged backgrounds, and rural areas than academic education because of its lower entry requirements and affordability. Gender analysis revealed that girls tend to perform better academically than boys and enroll less in TVET than academic education; and female teachers generally enjoy fewer opportunities for training, promotion, and managerial responsibilities. The program is designed with some gender elements. Specific gender targets and actions for teacher and manager training, students who receive poverty-related subsidies, and students from ASEAN countries who receive vocational education certificates have been included in the PAP.

#### B. Program Systems Assessments

28. **Monitoring and evaluation systems.** Assessment of the M&E system found that it has the potential to generate most of the information required to monitor the program. The following weaknesses were identified: (i) information on some indicators rely on self-reporting by TVET institutions, which could compromise quality and accuracy; (ii) lack of socioeconomic information to assess the impacts of TVET; (iii) limited availability of data disaggregated by sex, ethnicity, and poverty status at GED; (iv) limited availability of data on application-oriented universities segregated from those on academic colleges and universities; and (v) fragmented data collection and reporting mechanisms for skills and knowledge transfer activities between TVET institutions and enterprises in GZAR and ASEAN countries. The PAP contains actions to strengthen GED's M&E systems.

29. **Fiduciary systems.** The program will use the country’s program systems for financial management, procurement, and anticorruption. Financial management assessment confirmed that the GZAR government and TVET institutions have adequate financial management systems, and staff capacity was found to be relatively strong. Weaknesses identified include inadequate staff capacity for internal audit at GED and TVET institutions, and generally lower financial management capacity at county TVET institutions. Procurement assessment concluded that the procurement framework is aligned with the principles of competition, efficiency, economy, transparency, fairness, and equal opportunities. Weaknesses found include lack of qualified procurement staff and training opportunities, and a lack of technical skills at TVET institutions to prepare technical specifications and cost estimates. Procurement involving high-value contracts will be excluded from ADB financing.<sup>18</sup> Actions to strengthen financial management and procurement systems have been included in the PAP and attached TA. The Guidelines to Prevent or Mitigate Fraud, Corruption, and Other Prohibited Activities in Results-Based Lending for Programs were explained to and discussed with the PRC and the GZAR governments.<sup>19</sup>

30. **Safeguard systems.** The program is categorized B for environment, involuntary resettlement, and indigenous peoples safeguards. Outputs 1 and 2 will involve civil works on existing campuses or reserved lands that may have some temporary and site-specific environmental impacts, and potential involuntary resettlement impacts. Any physical activity of the program that may be classified category A for the ADB environment and involuntary resettlement safeguards is excluded from the program scope. Output 3 will support students from poor ethnic minority families and ethnic culture inheritance and innovation. Gaps identified include (i) inadequate disclosure of environmental monitoring reports and public engagement during construction, and some difference in categorization criteria for civil works and related environmental impact assessment requirements; (ii) on involuntary resettlement safeguards, lack of identification of the poor and vulnerable groups during the screening process, lack of documentation of the consultation and information disclosure activities, and grievances received, and inadequate institutional arrangements, monitoring, and reporting arrangements; and (iii) lack of an effective monitoring and reporting system to analyze the performance of students from ethnic minority groups other than the Zhuang. Actions to address safeguard system gaps have been identified in the PAP and included in the attached TA.

**C. Integrated Risk Assessment and Mitigating Measures**

31. Major risks and mitigating measures are summarized in Table 5. The overall RBL program risk was assessed *moderate*. The benefits and impacts are expected to outweigh the costs.

**Table 5: Summary of Integrated Risk Assessment and Mitigating Measures**

<b>Risks</b>	<b>Ratings</b>	<b>Key Mitigating Measures</b>
<b>Results.</b> TVET institutions cannot complete self-improvement projects or meet provincial standards for modal TVET institutions within 3 years, negatively affecting the achievement of the program outcomes.	Substantial	Implementation status of self-improvement projects will be monitored regularly to identify the need for additional support and provide it on time. A margin of 1 year has been built into the program design to enable TVET institutions to complete their projects.
<b>Expenditures and financing.</b> Measures to close the funding gap may not be found on time, which may slow down the program implementation.	Moderate	Measures to increase efficiency in fund use are being implemented. The PRC and GZAR governments plan to increase budgets for TVET relative to general education.

<sup>18</sup> The amounts are \$50 million for works, turnkey and supply, and installation contracts; \$30 million for goods; \$20 million for information technology systems and non-consulting services; and \$15 million for consulting services.  
<sup>19</sup> ADB. 2013. *Piloting Results-Based Lending for Programs*. Manila (Appendix 7).

<b>Risks</b>	<b>Ratings</b>	<b>Key Mitigating Measures</b>
<b>Fiduciary.</b> Staff capacity for internal audit at GED and TVET institutions is inadequate to ensure efficiency and effectiveness of fund use.	Moderate	A financial management specialist will be engaged under the attached TA to provide training for audit staff on modern risk-based approaches to internal control.
<b>Safeguards.</b> Safeguards screening, planning, coordination, and monitoring are inadequate to comply with safeguards requirements.	Moderate	A resettlement framework has been adopted. Adequate staff at the program management office will be assigned as safeguards coordinators. Qualified staff will be assigned at TVET institutions to coordinate environmental management plan implementation. Safeguards specialists will be engaged under the attached TA.
<b>Overall RBL program risk</b>	<b>Moderate</b>	

GED = Guangxi Education Department, GZAR = Guangxi Zhuang Autonomous Region, PRC = People's Republic of China, RBL = results-based lending, TA = technical assistance, TVET = technical and vocational education and training. Note: Risk factors are assessed against two dimensions: (i) the likelihood that the risk will occur, and (ii) the impact of the risk on the outcome. Rating scale: low = low likelihood and low impact; moderate = substantial to high likelihood but low to moderate impact; substantial = low to moderate likelihood but substantial to high impact; high = high likelihood and high impact.

Source: Asian Development Bank.

#### **IV. ASSURANCES**

32. The government and the GZAR government have agreed with ADB on certain covenants for the RBL program, which are set forth in the loan and program agreements.

#### **V. RECOMMENDATION**

33. I am satisfied that the proposed results-based loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the loan of \$250,000,000 to the People's Republic of China for the Guangxi Modern Technical and Vocational Education and Training Development Program, from ADB's ordinary capital resources, in regular terms, with interest to be determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; for a term of 26 years, including a grace period of 5 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan and program agreements presented to the Board.

Takehiko Nakao  
President

30 August 2017

## DESIGN AND MONITORING FRAMEWORK

<b>Impact the RBL Program is Aligned with</b> Socioeconomic development in GZAR accelerated (GZAR Thirteenth Five-Year Plan, 2016–2020) <sup>a</sup>			
<b>Results Chain</b>	<b>Performance Indicators with Targets and Baselines</b>	<b>Data Sources and Reporting</b>	<b>Risks</b>
<b>Outcome</b> A TVET system that provides graduates with better employment opportunities in GZAR's industries established	By 2022 a. Percentage of TVET graduates who stayed in their first job for more than 6 months increased to 54% (2016 baseline: 49% of TVET graduates) (DLI 1)  b. Percentage of TVET graduates who have dual certification increased to 72% (2016 baseline: 67% of TVET graduates)	a. GED's management information system; GED's reports; reports of an independent third party  b. GED's management information system; GED's reports	Overall labor market conditions inadvertently affect employment opportunities for TVET graduates.
<b>Outputs</b> 1. Industry relevance of TVET enhanced	1a. Industry advisory plans to align TVET provision with industry needs implemented in 16 industries by 2021 (2016 baseline: no concrete steps and/or plans available) (DLI 2)  1b. 15 courses of study at secondary TVET level and 9 courses of study at tertiary TVET level being offered using competency-based training approach by 2020 (2016 baseline: industry-validated job profiles not available) (DLI 3)  1c. 380 practical training facilities in priority industries established in cooperation with enterprises by 2020 (2016 baseline: 0) (DLI 4)  1d. 120 students completed pilot modern apprenticeship programs, of which at least 12 were female, by 2020 (2016 baseline: 0)  1e. 15 TVET groups certified as model TVET groups by 2020 (2015 baseline: 0)	1a. Reports of an independent third party  1b. Reports of expert groups; semiannual program progress reports  1c. GED's management information system, GED's completion inspection reports; semiannual program progress reports  1d–1e. GED's management information system; semiannual program progress reports	Measures to close the funding gap may not be found on time, slowing down the program implementation.
2. Quality of TVET improved	2a. 30 secondary TVET schools and 6 tertiary TVET colleges meeting provincial standards for model TVET institutions by 2021 (2015 baseline: 0 secondary TVET schools; 0 tertiary TVET colleges) (DLI 5)  2b. Student–teacher ratio in secondary TVET schools improved to 20:1, and	2a. Evaluation reports of GED's completion evaluation teams; GED's management information system; reports of an independent third party  2b–2c, 2e. GED's management	

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
	<p>tertiary TVET colleges, to 18:1 by 2020 (2015 baseline: 36.5:1 in secondary TVET schools; 23:1 in tertiary TVET colleges)</p> <p>2c. 100% of full-time teachers at TVET institutions received practical and in-company training for at least 6 months from 2016 to 2020 (2015 baseline: 0%)</p> <p>2d. 100% of technical teachers certified with industry experience against the framework by 2020 (2015 baseline: no framework for industry experience of technical teachers in place) (DLI 6)</p> <p>2e. 500 managers at secondary TVET schools (of which 50 were female), and 100 managers at tertiary TVET colleges (of which 10 were female) reporting improved knowledge in leadership and management by 2020 (2015 baseline: 0)</p> <p>2f. 35 secondary TVET schools and 20 tertiary TVET colleges meeting provincial guidelines for monitoring and reporting by 2020 (2016 baseline: provincial guidelines for improved monitoring and reporting not in place) (DLI 7)</p>	<p>information system; semiannual program progress reports</p> <p>2d. GED's management information system; GED's reports; semiannual program progress reports</p> <p>2f. Reports of an expert group; semiannual program progress reports</p>	
3. Inclusiveness of TVET increased	<p>By 2020</p> <p>3a. 90,000 TVET students annually on average received poverty-related subsidies, of which at least 35% were females (2015 baseline: 92,500, of which 32% were female)</p> <p>3b. 40 TVET bases for ethnic culture inheritance and innovation established (2015 baseline: 30)</p>	3a–3b. GED's management information system; semiannual program progress reports	
4. Role of TVET in regional economic development expanded	<p>By 2020</p> <p>4a. Number of participants in partnership training and cross-border training programs between selected TVET institutions in GZAR and ASEAN TVET institutions and/or enterprises increased to at least 10% over the 2018 number (2017 baseline: scope of regional cooperation partnership defined in consultation with relevant institutions) (DLI 8)</p> <p>4b. 1,600 students from ASEAN countries received vocational education certificates annually from GZAR's TVET institutions, of which 10% were female (2016 baseline: 1,544)</p>	<p>4a. Information and reports from GED, and selected TVET institutions in GZAR; reports of an independent third party</p> <p>4b. GED's management information system; semiannual program progress reports</p>	<p>Measures to close the funding gap may not be found on time, slowing down the program implementation.</p> <p>Broader economic and political contexts discourage exchanges and cooperation activities between TVET institutions and enterprises in GZAR and ASEAN countries.</p>

<p><b>Key Program Actions</b></p> <p><b>Output 1: Industry relevance of TVET enhanced</b></p> <ol style="list-style-type: none"> <li>1.1 Provide guidance for the development of terms of reference for industry steering committees (Q3 2017–Q4 2017)</li> <li>1.2 Monitor the functioning of industry steering committees against their terms of reference and review the status of implementing industry advisory plans (Q1 2018–Q4 2021)</li> <li>1.3 Identify courses of study and TVET institutions to pilot test new methods of engaging industries in defining competencies and developing curriculum, training materials and methods, and assessment (Q3 2017–Q4 2017)</li> <li>1.4 Engage consulting services for industry partnerships (Q4 2017–Q1 2018)</li> <li>1.5 Pilot new methods of defining competencies and developing curriculum, training materials and methods, and assessment (Q2 2018–Q4 2020)</li> <li>1.6 Conduct an evaluation of the pilot methods of defining competencies and developing curriculum, training materials and methods, and assessment (Q3 2020–Q2 2021)</li> <li>1.7 Require enterprises and industries to provide advice in planning and developing practical training facilities in GZAR's priority industries (Q1 2018–Q3 2018)</li> <li>1.8 Monitor the development of practical training facilities in GZAR's priority industries in cooperation with enterprises (Q1 2018–Q4 2020)</li> </ol> <p><b>Output 2: Quality of TVET improved</b></p> <ol style="list-style-type: none"> <li>2.1 Issue a call for proposals and provincial standards for model TVET institutions, including updated criteria, comprehensive standards for model TVET institutions, reporting requirements, and evaluation criteria for self-improvement projects; screen TVET institutions and evaluate proposals based on the updated criteria; and select applicant TVET institutions to undertake self-improvement projects (Q4 2017–Q1 2018)</li> <li>2.2 Monitor implementation status of self-improvement projects and conduct completion evaluations (Q2 2018–Q1 2021)</li> <li>2.3 Improve training mechanisms for TVET teachers, including practical and in-company training mechanisms, especially at county level and for female TVET teachers (Q1 2018–Q4 2018)</li> <li>2.4 Ensure the collection of data on female teachers and managers, and monitor the participation of female teachers and managers in training (Q1 2018–Q4 2020)</li> <li>2.5 Review the national and provincial guidelines and information systems for improved monitoring and reporting of TVET institutions (Q1 2018–Q2 2018)</li> <li>2.6 Facilitate TVET institutions in strengthening monitoring and reporting based on MOE's information system, and monitor the functioning of monitoring and reporting of TVET institutions (Q2 2018–Q4 2020)</li> <li>2.7 Conduct training for TVET institutions on improved monitoring and reporting (Q3 2018–Q4 2020)</li> </ol> <p><b>Output 3: Inclusiveness of TVET increased</b></p> <ol style="list-style-type: none"> <li>3.1 Ensure data collection and monitoring of TVET students from poor families who receive financial assistance (Q1 2018–Q4 2020)</li> <li>3.2 Ensure financial and other types of support (e.g., counseling, career guidance, employment services) for TVET students from poor families to complete TVET (Q1 2018–Q4 2020)</li> <li>3.3 Identify TVET institutions to become bases for ethnic culture inheritance and innovation and develop curriculum, training materials and methods, and practical training facilities (Q1 2018–Q4 2020)</li> </ol> <p><b>Output 4: Role of TVET in regional economic development expanded</b></p> <ol style="list-style-type: none"> <li>4.1 Increase budgets for exchanges and cooperation activities between TVET institutions and enterprises in TVET institutions and enterprises in GZAR and ASEAN countries (Q1 2018–Q4 2019)</li> <li>4.2 Monitor acceptance, progression, and graduation of students from ASEAN countries with data disaggregated by institution, course of study, sex, and country; and develop a graduate database (Q1 2018–Q4 2020)</li> </ol>
<p><b>Financing Plan</b></p> <p>Total program financing from 2017 to 2020: \$10.02 billion  Government: \$6.8 billion (2017–2020)  Public TVET institution tuition and other fees: \$1.8 billion  Commercial banks: \$938 million  ADB: \$250 million (loan); \$600,000 (technical assistance)</p>
<p><b>Assumptions for Partner Financing</b></p> <p>KfW (\$200 million) will cofinance the program on a joint collaborative basis. The partner financing will support the outputs based on the common results framework agreed with the government and ADB.</p>

ADB = Asian Development Bank, ASEAN = Association of Southeast Asian Nations, DLI = disbursement-linked indicator, GED = Guangxi Education Department, GZAR = Guangxi Zhuang Autonomous Region, MOE = Ministry of Education, RBL = results-based lending, TVET = technical and vocational education and training.

<sup>a</sup> Government of the People's Republic of China, Guangxi Development and Reform Commission. 2015. *Thirteenth Five-Year Plan on Guangxi Zhuang Autonomous Region Economic and Social Development Plan, 2016–2020*. Nanning.

Source: ADB.

**LIST OF LINKED DOCUMENTS**

<http://www.adb.org/Documents/RRPs/?id=49308-002-3>

1. Loan Agreement
2. Program Agreement
3. Country Economic Indicators
4. Summary Sector Assessment: Education
5. Program Soundness Assessment
6. Program Results Assessment
7. Program Results Framework
8. Program Expenditure and Financing Assessment
9. Program Monitoring and Evaluation System Assessment
10. Program Fiduciary Systems Assessment
11. Program Safeguard Systems Assessment
12. Integrated Risk Assessment and Mitigating Measures
13. Program Action Plan
14. Attached Technical Assistance Report
15. Contribution to the ADB Results Framework
16. Development Coordination
17. Summary Poverty Reduction and Social Strategy
18. Program Implementation Document

**Supplementary Documents**

19. Economic Analysis
20. Environmental Safeguard System Assessment
21. Resettlement Framework

## DISBURSEMENT-LINKED INDICATORS, VERIFICATION PROTOCOLS, AND DISBURSEMENT SCHEDULE

**Table A3.1: Disbursement-Linked Indicators**

DLIs <sup>a</sup>	Baseline Value and Year	Prior Results (2017)	Target Values				
			2018	2019	2020	2021	2022
<b>Outcome: TVET system that provides graduates with better employment opportunities in GZAR's industries established</b>							
DLI 1: TVET graduates who entered stable employment increased	49% of TVET graduates stayed in the first job for more than 6 months by end 2016				52% of TVET graduates stayed in the first job for more than 6 months		54% of TVET graduates stayed in the first job for more than 6 months
<b>Output: Industry relevance of TVET enhanced</b>							
DLI 2: TVET provision based on industry needs improved	No concrete steps and/or plans to align TVET provision with industry needs available by end 2015	Terms of reference for 15 industry steering committees approved		Industry advisory plans in 8 industries implemented	Industry advisory plans in 12 industries implemented	Industry advisory plans in 16 industries implemented	
DLI 3: Competency-based approach in TVET piloted	Industry-validated job profiles not available by end 2016	24 courses of study, within 8 host TVET institutions, selected for piloting competency-based training		12 courses of study being offered using competency-based training approach	24 courses of study being offered using competency-based training approach	GED report evaluating the pilot projects completed	
DLI 4: Practical training facilities established in priority industries	No practical training facility in priority industries established in cooperation with enterprises by end 2016	60 practical training facilities established in cooperation with enterprises	166 practical training facilities established in cooperation with enterprises	275 practical training facilities established in cooperation with enterprises	380 practical training facilities established in cooperation with enterprises		

DLIs <sup>a</sup>	Baseline Value and Year	Prior Results (2017)	Target Values				
			2018	2019	2020	2021	2022
<b>Output: Quality of TVET improved</b>							
DLI 5: Model TVET institutions established	No model TVET institutions by end 2015		Provincial standards for model TVET institutions approved		24 TVET institutions meeting provincial standards for model TVET institutions	36 TVET institutions meeting provincial standards for model TVET institutions	
DLI 6: TVET teachers with industry experience increased	No framework for industry experience of technical teachers in place by end 2015		Policy and assessment framework for industry experience of technical teachers adopted	55% of technical teachers certified with industry experience against the framework	85% of technical teachers certified with industry experience against the framework	100% of technical teachers certified with industry experience against the framework	
DLI 7: TVET delivery informed by stronger management information	Provincial guidelines for improved monitoring and reporting not in place by end 2016	Provincial guidelines for improved monitoring and reporting of secondary TVET schools issued	10 TVET institutions meeting provincial guidelines for monitoring and reporting		55 TVET institutions meeting provincial guidelines for monitoring and reporting		
<b>Output: Role of TVET in regional economic development expanded</b>							
DLI 8: Contribution of TVET to promote regional cooperation and integration enhanced	Scope of regional cooperation partnership defined in consultation with relevant institutions in 2017	At least 5 TVET institutions in GZAR selected as partner of ASEAN TVET institutions and/or enterprises and plans for	Partnership agreements for long-term cooperation established between the selected TVET institutions in GZAR and ASEAN TVET institutions and/or enterprises	Participants in partnership training and cross-border training programs between selected TVET institutions in GZAR and ASEAN TVET	Participants in partnership training and cross-border training programs between selected TVET institutions in GZAR and ASEAN TVET institutions and/or enterprises in 2019 increased over		

DLIs <sup>a</sup>	Baseline Value and Year	Prior Results (2017)	Target Values				
			2018	2019	2020	2021	2022
		regional cooperation outlined		institutions and/or enterprises in 2018 increased over 2017 baseline by 10%	2018 number by at least 10%		

<sup>a</sup> Definitions of terms used in this part are in Table A3.2: Verification Protocols.

ASEAN = Association of Southeast Asian Nations, DLI = disbursement-linked indicator, GED = Guangxi Education Department, GZAR = Guangxi Zhuang Autonomous Region, TVET = technical and vocational education and training.

Source: Asian Development Bank.

**Table A3.2: Verification Protocols**

DLIs	Definition and Description of Achievement	Information Source and Frequency	Verification Agency and Procedure	Verification Time Frame
<b>DLI 1: TVET graduates who entered stable employment increased</b>				
<p><u>2020</u>: 52% of TVET graduates who stayed in the first job for more than 6 months</p> <p><u>2022</u>: 54% of TVET graduates who stayed in the first job for more than 6 months</p>	<p>Definitions:</p> <p>The “first job” means a full-time waged employment that a TVET graduate obtained for the first time after graduation.</p> <p>This DLI is achieved when the percentage of TVET graduates who stayed in their first job for more than 6 months reaches the targets.</p>	<p>GED’s management information system; GED’s reports; reports of an independent third party; 2020, 2022</p>	<p>Using graduate data reported by TVET institutions in GED’s management information system, GED prepares a report showing the percentage of TVET graduates who stayed in their first job for more than 6 months.</p> <p>An independent third party<sup>a</sup> engaged under the attached TA verifies graduate data reported by TVET institutions on a sample basis and prepares a report.</p>	<p>Information as of 31 December 2020, 2022</p>
<b>DLI 2: TVET provision based on industry needs improved</b>				
<p><u>Prior Results (2017)</u>: Terms of reference for 15 industry steering committees approved</p>	<p>Definitions:</p> <p>“Terms of reference for an industry steering committee” refers to a document, acceptable to ADB and KfW, governing the work of such steering committee which specifies its key functions in detail and requires the committee to provide time-bound deliverables to GED and TVET institutions to align TVET with human resources needs in the relevant economic subsector.</p> <p>“Industry steering committee” means a committee comprised of senior TVET professionals and senior representatives from economic subsectors expected to hire graduates from TVET courses of study relevant to the particular economic subsector, established in accordance with GED’s 2016</p>	<p>Terms of reference for each of 15 industry steering committees approved by GED; 2017</p>	<p>ADB and KfW provide comments on a template for the terms of reference and agree with GED on any changes required.<sup>b</sup></p>	<p>Information as of 31 December 2017</p>

DLIs	Definition and Description of Achievement	Information Source and Frequency	Verification Agency and Procedure	Verification Time Frame
	<p>“Announcement of Establishing the Industry TVET Steering Committee in GZAR” and entrusted by GED to provide research, recommendations, and guidance for TVET to serve the needs of the relevant economic subsector.</p> <p>This prior result is achieved (with respect to each of 15 industry steering committees) when the terms of reference for (such) committee, using the agreed template, adapted as necessary to suit the mandate of (each) industry steering committee, has been approved by GED.</p>			
<p>2019: Industry advisory plans in 8 industries implemented</p> <p>2020: Industry advisory plans in 12 industries implemented</p> <p>2021: Industry advisory plans in 16 industries implemented</p>	<p>Definitions:</p> <p>An “industry advisory plan” means a document which identifies human resources needs in the relevant economic subsector and specifies actions and steps to take to improve course offerings, training content and methods, training materials and practical training facilities, and other aspects of training to align TVET provision with industry needs based on surveys, research, and analyses conducted by industry steering committees.</p> <p>This DLI is achieved when industry advisory plans in the target number of industries have been evaluated as implemented.</p>	<p>Reports of an independent third party; annual</p>	<p>An independent third party engaged under the attached TA reviews industry advisory plans, surveys, research, and analyses at industry steering committee secretariats, conducts key informant interviews, and prepares a report which evaluates the implementation status of industry advisory plans in the relevant economic subsectors.</p>	<p>Information as of 31 December 2019, 2020, and 2021</p>
<b>DLI 3: Competency-based approach in TVET piloted</b>				
<p><u>Prior Results (2017):</u> 24 courses of study, within 8 host TVET institutions, selected for piloting competency-based training</p>	<p>Definitions:</p> <p>A “course of study” refers to a series of courses that all students are required to complete to obtain an</p>	<p>GED’s notification approving pilot courses of study and host TVET institutions issued and</p>	<p>GED proposes terms of reference for consulting services which includes a list of courses of study and host</p>	<p>Information as of 31 December 2017</p>

DLIs	Definition and Description of Achievement	Information Source and Frequency	Verification Agency and Procedure	Verification Time Frame
	<p>academic certificate, as listed in the national catalogue of courses of study, for secondary TVET schools or tertiary TVET colleges issued by MOE.</p> <p>“Competency-based training” refers to an approach that places emphasis on what a person is required to do in the particular occupation/job and implies deep involvement of industry. Training content, materials, methods, and assessments of a program of training are developed and delivered based on competencies. Those competencies are identified based on job profiles developed jointly with industries and verified by industries.</p> <p>“Curricula” mean a document which specifies training standards, content, methods, and duration that a course of study should follow.</p> <p>“Training materials” mean textbooks and other materials used by teachers and students in teaching and learning.</p> <p>“Job profile” refers to a document that describes duties, tasks, and competencies involved in performing the job and that provides a basis for the development of curriculum and training materials.</p> <p>“Validated by industries” means that partner enterprises of the host TVET institution concerned with the job have confirmed that the job involves the duties, tasks, and competencies identified in the job profile.</p>	<p>posted on GED’s website; 2017</p>	<p>TVET institutions selected for ADB and KfW’s comments.</p>	

DLIs	Definition and Description of Achievement	Information Source and Frequency	Verification Agency and Procedure	Verification Time Frame
	This prior result is achieved when GED has approved terms of reference acceptable to ADB and KfW for consulting services which includes a list of courses of study and host TVET institutions (at least 5 secondary TVET schools and 3 tertiary TVET colleges) to implement the pilot projects.			
<p><u>2019</u>: 12 courses of study being offered using competency-based training approach</p> <p><u>2020</u>: 24 courses of study being offered using competency-based training approach</p>	This DLI is achieved when GED has confirmed that it has received a report of an expert group <sup>c</sup> confirming that the target number of courses of study are being offered using curricula and training materials developed based on job profiles validated by industries.	Reports of expert groups; 2019, 2020	Expert group confirms by onsite visits that curricula and training materials have been developed based on job profiles validated by industries for the target number courses of study and that these curricula and training materials are being implemented.	Information as of 31 December 2019 and 2020
<u>2021</u> : GED report evaluating the pilot projects completed	This DLI is achieved when GED has confirmed that it has received a report of an expert group evaluating the methodology applied in the pilot projects, and providing recommendations to GED on the possibility of applying the piloted methodology more broadly to strengthen competency-based approach in TVET.	GED's pilot evaluation report; 2021	Expert group prepares and delivers a report for GED, evaluating the methodology applied in the pilot projects, and providing recommendations to GED on the possibility of applying the piloted methodology more broadly to strengthen competency-based approach in TVET.	Information as of 31 December 2021
<b>DLI 4: Practical training facilities established in priority industries</b>				
<p><u>Prior Results (2017)</u>: 60 practical training facilities established in cooperation with enterprises</p> <p><u>2018</u>: 166 practical training facilities established in cooperation with enterprises</p>	<p>Definitions:</p> <p>"Priority industries" mean Guangxi's "14+10" key industries.<sup>d</sup></p> <p>A "practical training facility" means infrastructure, equipment, and other facilities for delivering practical, job-relevant training.</p>	GED's management information system; GED's completion evaluation reports; annual	GED conducts completion inspections of TVET institutions to confirm they have established practical training facilities in priority industries in cooperation with enterprises, and prepares a report showing the number of practical training facilities in priority industries established	Information as of 31 December 2017, 2018, 2019, and 2020

DLIs	Definition and Description of Achievement	Information Source and Frequency	Verification Agency and Procedure	Verification Time Frame
<p><u>2019</u>: 275 practical training facilities established in cooperation with enterprises</p> <p><u>2020</u>: 380 practical training facilities established in cooperation with enterprises</p>	<p>“Established in cooperation with enterprises” means that enterprises provide knowledge, financial, and material support in establishing practical training facilities.</p> <p>This DLI is achieved when GED’s completion inspection reports show that the target number of practical training facilities in priority industries have been established in cooperation with enterprises.</p> <p>70% of the scheduled disbursement in 2018 will be made when the number of practical training facilities in priority industries reaches 116 in 2018. 70% of the scheduled disbursement in 2019 will be made when the number of practical training facilities in priority industries reaches 192 in 2019.</p>		in cooperation with enterprises.	
<b>DLI 5: Model TVET institutions established</b>				
<p><u>2018</u>: Provincial standards for model TVET institutions approved</p>	<p>Definitions:</p> <p>“Provincial standards for model TVET institutions” mean standards for screening applicant TVET institutions and criteria for evaluating their proposals for self-improvement projects newly developed by GED and its expert groups, together with comprehensive standards (teaching and learning environment and materials, practical training facilities, teachers, quality and relevance of courses of study, employment outcomes) against which applicant TVET institutions will be evaluated after completing their self-improvement projects and certified as</p>	<p>Provincial standards for model TVET institutions issued in GED’s notice to TVET institutions; evaluation reports of expert groups; reports of independent third party; 2018</p>	<p>Two expert groups formed by GED, one for secondary TVET schools and one for tertiary TVET colleges, review provincial standards for model TVET institutions issued in GED’s notice to TVET institutions, screen applicant TVET institutions based on the provincial standards specified in GED’s notice to TVET institutions requesting applications, review proposals for self-improvement projects (“demonstration TVET projects”), and prepare evaluation reports. After reviewing the evaluation</p>	<p>Information as of 31 December 2018</p>

DLIs	Definition and Description of Achievement	Information Source and Frequency	Verification Agency and Procedure	Verification Time Frame
	<p>model TVET institutions (“demonstration TVET institutions”).</p> <p>“Self-improvement project (“demonstration TVET project”)” means a 3-year program of activities of an applicant TVET institution designed to enable the institution to achieve the comprehensive standards for model TVET institution (“demonstration TVET institution”).</p> <p>This DLI is achieved when GED approves provincial standards newly developed by GED and its expert groups and issues them in GED’s notice to TVET institutions; evaluation reports of expert groups, screening applicant TVET institutions and evaluating proposals for self-improvement projects (“demonstration TVET projects”) based on the provincial standards, have been accepted by GED; and GED has issued notifications to at least 36 applicant TVET institutions (at least 30 secondary TVET schools and at least 6 tertiary TVET colleges) informing them that they have been selected for undertaking self-improvement projects (“demonstration TVET projects”).</p>		<p>reports, GED considers the recommendations of the reports and issues a public notice naming selected TVET institutions.</p> <p>An independent third party, engaged under the attached TA, reviews the provincial standards for model TVET institutions, evaluation reports of expert groups, and prepares a verification report.</p>	
<p><u>2020</u>: 24 TVET institutions meeting provincial standards for model TVET institutions</p> <p><u>2021</u>: 36 TVET institutions meeting provincial standards for model TVET institutions</p>	<p>Definitions:</p> <p>“TVET institution meeting provincial standards for model TVET institution” means a TVET institution that has successfully completed a self-improvement project (“demonstration TVET project”) and has been evaluated as meeting comprehensive</p>	<p>Evaluation reports of GED’s completion evaluation teams; GED’s management information system; reports of independent third-party; 2020, 2021</p>	<p>After the applicant TVET institutions have submitted their completion reports, completion evaluation teams formed by GED conduct field visits, verify the achievement of self-improvement project (“demonstration TVET project”) outcomes, evaluate</p>	<p>Information as of 31 December 2020 and 2021</p>

DLIs	Definition and Description of Achievement	Information Source and Frequency	Verification Agency and Procedure	Verification Time Frame
	<p>standards for model TVET institutions (teaching and learning environment and materials, practical training facilities, teachers, quality and relevance of courses of study, employment outcomes) by an expert group.</p> <p>This DLI is achieved when the target number of TVET institutions have been evaluated as satisfactorily completed self-improvement projects (“demonstration TVET projects”) and meeting the comprehensive standards, and the target number of TVET institutions have been notified that they have been certified as model TVET institutions (“demonstration TVET institutions”).</p>		<p>whether the applicant TVET institutions have met the comprehensive standards for model TVET institutions and prepare evaluation reports which conclude “completion”<sup>e</sup> and meeting the model TVET institution standards.</p> <p>An independent third party engaged under the attached TA reviews the evaluation reports, conduct visits to at least six sample self-improvement projects (“demonstration TVET projects”) at secondary institutions and at least two at tertiary institutions, in each case as selected by the independent third party, and prepares a verification report.</p>	
<b>DLI 6: TVET teachers with industry experience increased</b>				
<p><u>2018</u>: Policy and assessment framework for industry experience of technical teachers adopted</p>	<p>Definitions:</p> <p>“Policy and assessment framework for industry experience of (“dual qualification”) of technical teachers” means a new framework of detailed criteria and standards for assessing industry experience (“dual qualification”) of technical teachers (i.e., full-time teachers in technical fields in TVET institutions who have a teaching license for the level at which they teach and an occupational skills certificate relevant to the subject or subjects that they teach) which clarifies technical teachers’ career progression in terms of industry experience and supports technical teachers in gaining more industry</p>	<p>Policy and assessment framework document issued and posted on GED’s website; 2018</p>	<p>GED officially publishes the policy and assessment framework for industry experience (“dual qualification”) of technical teachers and posts it on GED’s website.</p>	<p>Information as of 31 December 2018</p>

DLIs	Definition and Description of Achievement	Information Source and Frequency	Verification Agency and Procedure	Verification Time Frame
	<p>experience. The framework is currently unavailable in the PRC and GED will roll out this new framework in GZAR (piloted in 2016–2017) ahead of the other provinces.</p> <p>The 2018 DLI is achieved when GED officially publishes the policy and assessment framework for industry experience (“dual qualification”) of technical teachers and posts it on its website.</p>			
<p><u>2019</u>: 55% of technical teachers certified with industry experience against the framework</p> <p><u>2020</u>: 85% of technical teachers certified with industry experience against the framework</p> <p><u>2021</u>: 100% of technical teachers certified with industry experience against the framework</p>	<p>Definitions:</p> <p>“Certified with industry experience” means industry experience of technical teachers has been verified against certification and other documents evidencing it as per criteria and assessment standards specified in the policy and assessment framework.</p> <p>This DLI is achieved when the GED data shows that the target percentage of technical teachers whose industry experience has been certified by GED against the framework.</p> <p>80% of the scheduled disbursement in 2019 will be made when the percentage of technical teachers whose industry experience has been certified by GED reaches 40% in 2019.</p>	<p>GED’s management information system; GED’s reports; 2019, 2020, 2021</p>	<p>GED reviews certification and other documents of technical teachers submitted by TVET institutions, and certifies their industry experience (“dual qualification”) of each technical teacher against the criteria and assessment standards. GED then prepares a report showing the percentage of full-time teachers in technical fields whose industry experience has been certified.</p>	<p>Information as of 31 December 2019, 2020, and 2021</p>
<b>DLI 7: TVET delivery informed by stronger management information</b>				
<p><u>Prior Results (2017)</u>: Provincial guidelines for improved monitoring and reporting of secondary TVET schools issued</p>	<p>Definitions:</p> <p>“Provincial guidelines for improved monitoring and reporting of secondary TVET schools” refers to</p>	<p>GED’s guidelines for improved monitoring and reporting of secondary TVET schools issued and posted on GED’s website;</p>	<p>GED officially publishes the guidelines and posts on its website.</p>	<p>Information as of 31 December 2017</p>

DLIs	Definition and Description of Achievement	Information Source and Frequency	Verification Agency and Procedure	Verification Time Frame
	<p>an official document, issued by GED, on the implementation of improved monitoring and reporting of secondary TVET schools, specifying procedures, standards, criteria, methods, and templates based on MOE's guidelines and information system.</p> <p>This prior result is achieved when the provincial guidelines have been issued by GED.</p>	2017		
<p><u>2018</u>: 10 TVET institutions meeting provincial guidelines for monitoring and reporting</p> <p><u>2020</u>: 55 TVET institutions meeting provincial guidelines for monitoring and reporting</p>	<p>Definitions:</p> <p>Provincial guidelines for monitoring and reporting are "met" when the TVET institution regularly collects and analyzes data for monitoring and reporting in compliance with the procedures, standards, criteria, methods, and templates specified in the provincial guidelines.</p> <p>This DLI is achieved when the target number of TVET institutions have been assessed as meeting provincial guidelines for improved monitoring and reporting by expert group.</p>	Reports of an expert group; 2018, 2020	An expert group formed by GED reviews TVET institutions' procedures, standards, criteria, methods and templates for monitoring and reporting, and subsequently, their actual reporting, and prepares reports on their status of meeting provincial guidelines for improved monitoring and reporting.	Information as of 31 December 2018 and 2020
<b>DLI 8: Contribution of TVET to promote regional cooperation and integration enhanced</b>				
<p><u>Prior Results (2017)</u>: At least 5 TVET institutions in GZAR selected as partner of ASEAN TVET institutions and/or enterprises and plans for regional cooperation outlined</p>	<p>The prior result is achieved when GED provides a list of the selected TVET institutions (hereafter the "selected institutions") and a report on their respective plans.</p>	List of selected institutions and summary of their plans; 2017	GED provides list of selected institutions and summary of their plans.	Information as of 31 December 2017

DLIs	Definition and Description of Achievement	Information Source and Frequency	Verification Agency and Procedure	Verification Time Frame
<p><u>2018</u>: Partnership agreements for long-term cooperation established between the selected TVET institutions in GZAR and ASEAN TVET institutions and/or enterprises</p>	<p>Definitions:</p> <p>“Partnership agreement” refers to a memorandum of understanding or other form of framework agreement between a selected institution and one or more ASEAN TVET institutions and/or enterprises agreeing to engage in partnerships continuing through 2020 or longer to increase skills and knowledge transfer through cross-border exchanges of trainees, teachers, and experiences.</p> <p>“Baseline for 2017 exchanges” means the number of trainees and trainers from the selected institutions or those hosted by the selected institutions who participated in partnership training and other cross-border training programs in 2017, or, where the selected institution did not engage in cross-border exchanges in 2017 the baseline for 2017 exchanges will be deemed to be 500.</p> <p>This DLI is achieved when the selected institutions have entered into partnership agreements with ASEAN TVET institutions and/or enterprises and when the baseline for 2017 exchanges is determined.</p>	<p>Partnership agreements and data provided by selected TVET institutions in GZAR; report of an independent third party; 2018</p>	<p>GED provides ADB and KfW copies of partnership agreements and data on 2017 trainees and trainers sufficient to determine the baseline for 2017 exchanges.</p> <p>An independent third party engaged under the attached TA reviews copies of partnership agreements and data on 2017 trainees and trainers, verifies the baseline for 2017 exchange, and prepares a report.</p>	<p>Information as of 31 December 2018</p>
<p><u>2019</u>: Participants in partnership training and cross-border training programs between selected TVET institutions in GZAR and ASEAN TVET institutions and/or enterprises in 2018 increased over 2017</p>	<p>This DLI is achieved when trainee and trainer data reported by the selected TVET institutions in GZAR show that the target number of trainees and trainers have participated in partnership training and other cross-border training programs between the selected TVET institutions in GZAR and</p>	<p>Information and reports from GED, and selected TVET institutions in GZAR; reports of an independent third party; 2019, 2020</p>	<p>Selected TVET institutions in GZAR prepare reports on trainees, trainers, partnership training, and cross-border training programs. Based on the reports, GED prepares a report.</p>	<p>Information as of 31 December 2019 and 2020</p>

DLIs	Definition and Description of Achievement	Information Source and Frequency	Verification Agency and Procedure	Verification Time Frame
baseline by 10%  <u>2020</u> : Participants in partnership training and cross-border training programs between selected TVET institutions in GZAR and ASEAN TVET institutions and/or enterprises in 2019 increased over 2018 number by at least 10%	ASEAN TVET institutions and/or enterprises.		An independent third-party engaged under the attached TA reviews the reports, conducts visits to the selected TVET institutions in GZAR, and prepares a report.	

<sup>a</sup> “Independent third party” as used in the verification protocols means experts who meet standards of independence and expertise specified in the project implementation document. Where the verification protocols require independent third-party review or verification, unless ADB otherwise determines, in its sole discretion, the DLI or partial DLI will not be considered achieved until the independent third party’s report confirming achievement is accepted by ADB and KfW.

<sup>b</sup> If KfW does not provide a loan to the program, references to KfW reviews or approvals in these verification protocols can be disregarded.

<sup>c</sup> “Expert groups” means committees or teams comprised of qualified TVET professional, industry, and government experts, selected by GED from an expert’s list it maintains, to assist GED in the tasks and functions specified to be performed by “expert groups” in the verification protocols. GED will establish different expert groups as appropriate for the different tasks and functions specified in the verification protocols.

<sup>d</sup> The “14+10” industries refer to 14 industries with an annual output value of over CNY100 billion each (food; automobile; petrochemical; electric power; nonferrous metal; metallurgy; machinery; building materials; paper making; electronic information; pharmaceutical manufacturing; textile clothing and leather; biology; ship building, repair, and ocean engineering equipment) and 10 emerging and strategic industries (new materials; new energy; energy-saving and environmental protection; marine economy; biopharmaceutical; new information technology; new energy vehicles; biological agriculture; advanced equipment manufacturing; and regimen, longevity, and health).

<sup>e</sup> Where a completion evaluation team determines based on the completion reports and field visits that the applicant TVET institutions fail to complete self-improvement projects (“demonstration TVET projects”) and to meet comprehensive standards for model TVET institutions (“demonstration TVET institutions”), it recommends that the relevant TVET institutions implement further improvements. Where an applicant TVET institution repeatedly fails to complete its self-improvement project (“demonstration TVET project”) and to meet comprehensive standards for model TVET institutions, GED may consider replacing it with a different institution.

ASEAN = Association of Southeast Asian Nations, DLI = disbursement-linked indicator, GED = Guangxi Education Department, GZAR = Guangxi Zhuang Autonomous Region, MOE = Ministry of Education, PRC = People’s Republic of China, TA = technical assistance, TVET = technical and vocational education and training.

Source: Asian Development Bank.

**Table A3.3: Disbursement Schedule**  
(\$ million)

<b>Disbursement-Linked Indicators</b>	<b>Total ADB Financing Allocation</b>	<b>Share of Total ADB Financing (%)</b>	<b>Financing for Prior Results</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
<b>Outcome</b>								
DLI 1: TVET graduates who entered stable employment increased	40.0	16.0				20.0		20.0
<b>Outputs</b>								
DLI 2: TVET provision based on industry needs improved	20.0	8.0	5.0		5.0	5.0	5.0	
DLI 3: Competency-based approach in TVET piloted	22.5	9.0	3.5		8.5	8.5	2.0	
DLI 4: Practical training facilities established in priority industries	47.5	19.0	7.5	22.5	12.5	5.0		
DLI 5: Model TVET institutions established	40.0	16.0		7.0		20.0	13.0	
DLI 6: TVET teachers with industry experience increased	37.5	15.0		10.5	15.0	8.0	4.0	
DLI 7: TVET delivery informed by stronger management information	22.5	9.0	4.5	9.0		9.0		
DLI 8: Contribution of TVET to promote regional cooperation and integration enhanced	20.0	8.0	3.0	7.0	6.0	4.0		
<b>Total</b>	<b>250.0</b>	<b>100.0</b>	<b>23.5</b>	<b>56.0</b>	<b>47.0</b>	<b>79.5</b>	<b>24.0</b>	<b>20.0</b>

ADB = Asian Development Bank, DLI = disbursement-linked indicator, TVET = technical and vocational education and training.  
Source: ADB.