

PROGRAM SOUNDNESS ASSESSMENT

A. Program Description

1. The Guangxi Modern Technical and Vocational Education and Training (TVET) Development Program will support, in 2017–2022, the Guangxi Zhuang Autonomous Region (GZAR) Modern TVET System Development Plan, 2015–2020 (the government program), prepared in response to the National Modern TVET System Development Plan, 2014–2020. The overall goal of the plan is to establish a modern TVET system that supports socioeconomic development in GZAR, by better articulating secondary and tertiary TVET, expanding pathways to general academic education, further integrating education and industry training, better aligning it with industrial development, contributing to poverty alleviation, providing continuing education, promoting unique features of different ethnic groups, and opening up TVET for international and regional cooperation. To provide more detailed guidance, including concrete actions, indicators, and targets, the GZAR government issued 10 implementation plans covering priority areas such as (i) the use of information and communication technology, (ii) infrastructure development, (iii) quality improvement, (iv) enhancement of teachers’ industry experience, (v) an increase in courses of study and practical training facilities in GZAR’s priority industries, (vi) TVET group development, (vii) TVET park development, (viii) the use of TVET to support poverty alleviation, (ix) ethnic culture inheritance and innovation, and (x) regional and international cooperation.

2. The Asian Development Bank (ADB) results-based lending (RBL) 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 the Association of Southeast Asian Nations (ASEAN) countries, which are expected to continue and likely to be upgraded after completion of the government program. The RBL program’s impact will be socioeconomic development in GZAR accelerated.¹ The outcome will be a TVET system that provides graduates with better employment opportunities in GZAR’s industries established. The priority areas covered by the 10 implementation plans have been grouped into four outputs of the RBL program to increase synergy between actions specified in the plans and provide focus on key results. The four outputs will include (i) industry relevance of TVET enhanced, (ii) quality of TVET improved, (iii) inclusiveness of TVET increased, and (iv) the role of TVET in regional economic development expanded.

3. The RBL program expenditures are estimated to be \$10,022 million from 2017 to 2020, whereas the government program expenditures, including those on private TVET institutions, are estimated to be \$12,981 million from 2016 to 2020. ADB’s RBL will provide \$250 million and German development cooperation through KfW is anticipated to provide \$200 million equivalent (in euros). 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. The government will fund the program if loans or other financing cannot be obtained. The scope of the government program and RBL program is in Table 1.

Table 1: Program Scope

Item	Broader Government Program	Results-Based Lending Program
Outcome	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

¹ 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.

Item	Broader Government Program	Results-Based Lending Program
Key outputs	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
Activity types	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, enhancement of teachers' industry experience, poverty alleviation, ethnic culture inheritance and innovation, and regional cooperation with ASEAN countries
Program expenditure	\$12.98 billion (2016–2020)	\$10.02 billion (2017–2020)
Main financiers and the respective financing amounts	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
Geographic coverage	GZAR	GZAR (public TVET institutions only; excluding activities categorized A under ADB's Safeguard Policy Statement [2009])
Implementation period	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.

B. Program Soundness

1. Relevance and Justification

4. Since the Twelfth Five-Year Plan, 2011–2015, the Government of the People's Republic of China (PRC) has been attaching great importance to TVET, supporting an expansion of student enrollments in TVET equal to those in general academic education.² One of the reasons behind this policy was the lower level of educational attainment among the working age population in the PRC, compared with developed countries, which would become a constraint to sustained economic growth. According to the 2010 census, the average years of schooling for people aged 15–64 years old was 9.60 years, a little beyond 9 years of compulsory education. Against this background, the National Plan for Medium- and Long-term Education Reform and Development, 2010–2020 set forth the goal of increasing the average years of schooling for the working age population to 11.2 years by 2020.³ TVET, especially secondary TVET, was considered suitable to provide additional years of schooling for junior secondary graduates who would have otherwise entered directly into the labor market because of academic, social, and economic reasons. By the

² Government of the People's Republic of China, National Development and Reform Commission. 2011. *The Outline of the Twelfth Five-Year Plan, 2011–2015*. Beijing.

³ Seventeenth Communist Party of China National Congress. 2010. *Outline of China's National Plan for Medium- and Long-term Education Reform and Development, 2010–2020*. Beijing.

end of the Twelfth Five-Year Plan, student enrollments in TVET expanded substantially, nearly equal to those in general academic education, thanks to supporting policies of the government, such as tuition fee exemption and lowering of entry requirements for secondary TVET (no competitive selection, unlike senior secondary education), and increased financial assistance for students from poor families and rural areas. Students from poor families, disadvantaged backgrounds, and rural areas have particularly benefited from these policies, as TVET enrolls a higher proportion of these groups of students than general academic education. In this context, the main justifications for public provision of TVET are its equalizing effects on access to education and the spillover effect on the economy resulting from the increased productivity of the workforce.

5. To maximize its spillover effect on the economy, TVET should be closely aligned with the human resources needs of industries and employers. In GZAR, however, the degree of industry and employer engagement in TVET has been insufficient, and at best limited to individual TVET institutions rather than the TVET system. As a result, course offerings, practical training facilities, and teachers' qualifications at TVET institutions do not adequately match the industry structure. Such mismatch has increased as GZAR's economy has grown rapidly, with primary industry shrinking (from 26.8% in 2000 to 15.3% of the gross domestic product [GDP] in 2015) and secondary industry expanding (from 35.2% in 2000 to 45.9% of GDP in 2015). Shortages of skilled labor are becoming acute, particularly in the "14+10" industries, which the GZAR government prioritizes in the Thirteenth Five-Year Plan, 2016–2020.⁴ To align TVET with the human resources needs of industries and employers, the program has incorporated interventions to strengthen mechanisms for engaging industries and employers in TVET.

6. **Beneficiaries.** The direct beneficiaries of the program are all the students and their families, teachers, and managers of TVET institutions in GZAR. These include, as of the end of 2015, about 1,099,948 students (736,360 in secondary TVET and 363,588 in tertiary TVET) and 43,191 teachers (27,431 in secondary TVET and 15,760 in tertiary TVET). The program will also directly benefit students, teachers, and employees of enterprises in ASEAN countries who participate in partnership training and exchange programs with TVET institutions in GZAR. Moreover, enterprises and industries in GZAR will indirectly benefit from the program, as they can find and recruit more work-ready graduates who meet their needs. Additionally, enterprises and industries in Guangdong province will benefit from the program because many skilled workers in GZAR have been drawn to neighboring Guangdong, which hosts two of the PRC's economic centers, Guangzhou and Shenzhen, by virtue of their proximity and significantly higher wages.

7. **Stakeholder support.** The National Modern TVET System Development Plan, 2014–2020 on which the GZAR Modern TVET System Development Plan is based, was a product of various studies and analyses, and extensive stakeholder consultations undertaken in the early 2010s. The draft plan was presented and discussed at the national conference on TVET organized by the Ministry of Education in 2014, the third of its kind since 1978. While adopting the outline of the national plan, the GZAR Modern TVET System Development Plan also reflects local issues, such as poverty, and ethnic minority culture and traditions, which were identified through stakeholder consultations, studies, and analyses conducted by the Guangxi Education Department (GED) and its expert groups. In preparing the RBL program, GED and its expert

⁴ "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; regimen, longevity, and health).

groups, which were also involved in the preparation of the 10 implementation plans of the GZAR Modern TVET System Development Plan, were extensively consulted, as well as students, teachers, and managers at TVET institutions, enterprises, and other relevant government agencies. Their suggestions and recommendations have been incorporated in the RBL program design.

8. **Poverty reduction and social impacts.** GZAR is one of the poorest provinces in the PRC, with per capita GDP of CNY37,712, ranking 27th out of 31 provinces, and 9.9% of the population living below the poverty line (per capita income of CNY2,300) compared with the national average of 5.2%. The poor is concentrated in rural areas (17.8% in 2016), exceeding the national rural poverty rate (9.2%). This is contrasted by the urban poor (1.02%), which is slightly lower than the national average (1.97%). Among the five ethnic minority autonomous regions in the PRC, GZAR has the largest ethnic minority population (17.8 million). Most of the ethnic minority population lives in mountainous rural areas, and the poverty rate is higher among the ethnic minority population than the majority Han population. TVET, especially secondary TVET, is an accessible and affordable option for the poor, the disadvantaged, and rural population, as it has no strict entry requirements or tuition fees. As a result, the share of students from poor families ranges from 20% to as high as 80% among secondary TVET institutions in GZAR. Large numbers of ethnic minority students also enroll in TVET (28.3% at secondary TVET schools and 37.8% at tertiary TVET colleges in 2016), and they come from poor families, especially those in secondary TVET. Because of the poor quality and relevance of TVET, and other socioeconomic factors, the dropout rate in secondary TVET is particularly high, especially at county-level TVET schools. This has serious implications for poverty reduction as dropouts are not equipped with skills required for employment or self-employment, and often end up with low paying, unstable, vulnerable employment. Although the government provides financial assistance for students from poor families, disadvantaged backgrounds, and rural areas, given its limited financing, not all students from families with financial difficulties can receive needed financial assistance.

9. The program has incorporated key design features to ensure benefits for the poor, the disadvantaged, and ethnic minorities, such as (i) improving the overall relevance and quality of secondary TVET in which many students from poor families, disadvantaged backgrounds, and rural areas enroll; (ii) ensuring financial assistance and other types of support (e.g., counseling, career guidance, employment services) for students from poor families to complete TVET and find employment or self-employment after graduation; and (iii) establishing TVET bases to promote ethnic culture inheritance and innovation.

10. **Gender impacts.** Girls tend to perform better academically than boys, and enroll less in TVET than academic education. The percentage of full-time female students in secondary TVET is 45.9% (and part-time female students, 36.2%), and in tertiary TVET, 45.2%. Although many students (both female and male) drop out, especially from secondary TVET, the dropout rate is slightly higher among male students than female students. In general, the TVET teaching workforce has a broad gender balance (about 48.8% of teachers are women). However, female teachers tend to enjoy fewer opportunities for training, promotion, and managerial responsibilities. The program includes gender targets in the program results framework and gender actions in the program action plan.

2. Adequacy

11. **Effectiveness.** The sector assessment revealed that the TVET system in GZAR faces the following issues and challenges: (i) an inadequate teaching and learning environment, and teachers' qualifications that do not meet provincial standards or higher national standards;

(ii) misalignment of TVET with human resources needs in industries, resulting in oversupply of certain courses of study, insufficient standardization of similar courses of study offered by secondary and tertiary TVET, and poor relevance of curriculum, training materials, and methods, practical training facilities, and assessments to employers' needs; (iii) high dropout rates, especially among students from poor families and disadvantaged backgrounds in secondary TVET; (iv) ineffective exchanges and cooperation activities between TVET institutions and enterprises in GZAR and ASEAN countries, without leading to any recognized skills certification or tangible results in scale, caused by lack of effective institutional coordination mechanisms in the GZAR government for setting strategic and policy directions, financing, and implementing and monitoring policies and programs; and (v) insufficient funding for TVET, as evidenced by low per-student spending in GZAR and low capital expenditures, which do not meet investment needs in the TVET system.

12. The four outputs of the RBL program have been designed to address the issues and challenges above. Building on the strong commitment of the GZAR government to establish a modern TVET system that supports socioeconomic development in GZAR, the RBL program will focus on key interventions designed to improve the relevance, quality, and inclusiveness of TVET and expand regional cooperation with ASEAN countries. This has been assured by identifying actions to ensure the successful implementation of the interventions, selecting outcome and output indicators to monitor key results, and providing technical assistance (TA) in areas where adequate capacity needs to be developed. The RBL program design, based on a clear results chain established among the outcome, outputs, and actions, is deemed adequate and appropriate for problems at hand and for the intended results.

13. **Efficiency and economy.** Eight disbursement-linked indicators (DLIs)—one outcome indicator and seven output indicators—have been selected because they represent key elements of a modern TVET system; reflect priority areas of the GZAR Modern TVET System Development Plan where new initiatives commenced in 2016 or 2017, requiring knowledge, expertise, and close monitoring; and are under the control of GED, the principal implementing agency of the RBL program. These eight DLIs are expected to incentivize the government to achieve results in the priority areas, while allowing sufficient flexibility for the government to determine how to achieve the results.

14. Although the RBL program does not include private TVET institutions, improved relevance and quality of public TVET will have catalytic effects on private TVET, as they need to compete for students with public TVET. By enhancing the capacity of TVET institutions to respond to employers' needs in terms of the teaching and learning environment, teacher qualifications, course offerings, curriculum, training materials and methods, assessments, and practical training facilities, more employers and industries are likely to engage in TVET, as they can make sure that graduates are ready for the work that they require. The GZAR government program aims to increase financing for TVET by tapping into resources provided by enterprises and industries. This can be achieved only after enterprises and industries start to trust the capacity of TVET institutions.

15. **Sustainability.** The seven DLIs measure the results of the new initiatives in the priority areas, which are expected to continue and likely to be upgraded after completion of the GZAR government program in 2020. These results can be sustained as they will be underpinned by overall TVET system and program system improvements to be supported through program actions and TA. Since the RBL program will continue until 2022, it can ensure that scaled up targets for these initiatives are included in the next government plan for 2021–2025.

3. Financial and Economic Analysis

16. TVET has the nature of a public good, as the benefit of TVET can be shared not only with graduates and workers who have acquired competencies, but also with employers and industries who can use graduates and workers' competencies, and possibly with others (who, for example, value graduates and workers' discipline, or civic awareness). Since general senior secondary and higher education is competitive, students who do not perform well academically are often denied access. With no competitive selection or tuition fees, secondary TVET can provide access to further education for those who would have otherwise entered directly into the labor market after junior secondary education. TVET therefore has an equalizing effect and raises the general level of educational attainment among the working-age population. Moreover, the poor public image of TVET in the PRC creates little demand for private TVET. Thus, TVET supply would be insufficient if it were left to the market. These provide strong justifications for public provision of TVET.

17. Various studies show that the returns to education in the PRC have been rising steadily, and were about 10.25% in 2010, which is consistent with evidence from major market economies. However, the returns to education vary, e.g., between rural and urban areas (lower in rural areas) and between different levels of education (higher with additional years of education). In GZAR, the entry level average wage of tertiary TVET college graduates was 60.9%, higher than that of secondary TVET graduates, while the entry level average wage of application-oriented university (AOU) graduates was 6.9%, higher than that of tertiary TVET college graduates in 2015. Table 2 presents the entry level average wages of graduates from different levels of TVET in GZAR.

Table 2: Entry Level Average Wage of Guangxi Zhuang Autonomous Region Graduates from Different Technical and Vocational Education and Training Levels, 2015
(CNY)

Level of TVET	Entry Level Average Wage
Secondary TVET graduates	20,796
Tertiary TVET college graduates	33,480
Application-oriented university graduates	35,820

TVET = technical and vocational education and training.

Sources: TVET institution annual graduate employment reports.

18. The economic analysis was conducted using a standard method of cost–benefit analysis to estimate an economic internal rate of return (EIRR), i.e., calculating the discount rate that equates the net present value of the cost stream with the net present value of the benefit stream.

19. **Economic benefits.** Benefits of the program include (i) higher wages expected for graduates resulting from 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 following assumptions were taken into account:

- (i) The dropout rate will reduce from 20% to 18% in secondary TVET schools and from 8% to 7% in tertiary TVET colleges from 2020 onward, and will remain the same at 1% in AOU.
- (ii) The number of graduates who will benefit from improved TVET by the end of 2021 will be 268,506 from secondary TVET schools, 93,845 from tertiary TVET colleges, and 38,170 from AOU.
- (iii) The graduate employment rate, by discounting the rate of transition to a higher level of education, will remain at 82% (with a transition rate of 13%) in secondary

- TVET schools, 90% (with a transition rate of 5%) in tertiary TVET colleges, and 96% in AOU.
- (iv) The entry level average wage in 2015 was CNY20,796 for secondary TVET graduates, CNY33,480 for tertiary TVET college graduates, and CNY35,820 for AOU graduates. With the program, the entry level average wage will increase by 10%.
 - (v) The average wage for unskilled workers is CNY18,000.
 - (vi) The graduates will receive benefits for 21 years.
 - (vii) The discount rate used is 9.0%.

20. Table 3 presents a summary of the benefits for graduates from different levels of TVET.

Table 3: Summary of Benefits for Graduates from Different Levels of TVET

Level of TVET	No. of Graduates without Program (2021)	Graduates Employed without Program (2021)	Average Annual Wage without Program (CNY)	No. of Graduates with Program (2021)	Graduates Employed with Program (2021)	Average Annual Wage with Program (CNY)
Secondary TVET schools	261,172	208,938	20,796	268,506	220,175	22,876
Tertiary TVET colleges	77,845	71,618	33,480	93,845	87,276	36,828
AOU	30,670	30,364	35,820	38,170	37,789	39,402

AOU = application-oriented university, TVET = technical and vocational education and training.

Source: Asian Development Bank estimates.

21. **Economic costs.** The economic costs identified for the program were capital costs (excluding taxes and duties) of CNY25,531 million in 2017–2020, and operation and maintenance costs (recurrent costs) of CNY8,201 million in 2017–2020 (as new or upgraded facilities will be in operation under outputs 1 and 2 of the program) and CNY3,235 annually from 2021 onward.

22. **Economic internal rate of return and sensitivity analysis.** The economic net present value for the program is CNY9,530 million and the EIRR is 11.16%. In addition to the base case scenario, four other scenarios were analyzed: (i) a 10% decrease in benefits, (ii) a 20% decrease in benefits, (iii) a 10% increase in costs, and (iv) a 20% increase in costs. The results, shown in Table 4, suggest that the program is economically viable under scenarios (i) and (iii). The program is highly sensitive to a 20% decrease in benefits and a 20% increase in costs, as the EIRR falls below 9% with negative net present values.

Table 4: Sensitivity Analysis

Scenario	Decreased Benefits (%)	Increased Costs (%)	EIRR (%)	ENPV (million)
Base Case			11.16	9,530
1	10.0		9.90	3,764
2	20.0		8.49	(2,002)
3		10.0	10.02	4,717
4		20.0	8.98	(96)

() = negative, EIRR = economic internal rate of return, ENPV = economic net present value.

Source: Asian Development Bank estimates.

23. **Sustainability.** Two major sources of financing for the RBL program are the GZAR government budgets for TVET (68.2%) and revenues from tuition and other fees for public TVET institutions (18.0%). Applying conservative assumptions of a 6.5% GDP annual growth rate in GZAR and a 6.5% GZAR government education budget growth rate, the GZAR government TVET

budgets in 2017–2020 are estimated to be \$6,942 million, which can provide the required government financing (\$6,833 million). Using the 2015 rate of tuition and other fees for public TVET institutions multiplied by the estimated number of students, revenues from tuition and other fees for public TVET institutions are estimated to be \$1,801 million, which can also provide the required funding (\$1,801 million). The GZAR government has been implementing measures to strengthen financial control and increase efficiency in the use of available funds. Moreover, the PRC and GZAR governments plan to increase budgets for TVET relative to general education, since the share of the TVET budget in the total education budget is small, despite the importance of TVET as a driver of economic growth. The financing for the RBL program is therefore likely to be sustainable.

4. Implementation Arrangements

24. The GZAR government will be the executing agency. The GZAR government has good experience with implementing ADB projects and shows strong ownership of the RBL program. GED will be the principal implementing agency and will implement the program through its program management office (PMO). 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.

25. The RBL program implementation will use the country's program 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. The program is categorized B for environment, involuntary resettlement, and indigenous peoples. Systems for managing, coordinating, and monitoring environment, involuntary resettlement, and social impacts will be established at the PMO. TVET institutions will be responsible for safeguards screening, planning, and monitoring. The fiduciary and safeguards program actions are included in the program action plan. The program management, financial management, environment, resettlement, and social development specialists to be engaged under the attached transaction TA will develop the capacity of GED and TVET institutions and strengthen the country's program systems.

26. **Disbursement arrangements.** 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 refund any advance financing amount outstanding if DLIs are not achieved. 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. Partial disbursements are allowed for DLIs 4 and 6. 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.

27. **Financial reporting and external audit arrangements.** No later than 6 months after the close of each fiscal year, the GZAR government will (i) prepare and submit to ADB unaudited financial statements for the RBL program; (ii) have the financial statements for the ADB loan audited in accordance with the Government Auditing Standards set by the PRC's National Audit Office; and (iii) submit to ADB the audited financial statements and audit report in the English language, including the auditors' opinions on the financial statements, use of the loan proceeds and compliance with the financial covenants of the loan agreement, and a management letter.

28. **Monitoring and evaluation system.** The program will be monitored and evaluated against the program results framework and eight DLIs related to key program results. Rigorous verification protocols, including independent third-party verification of outcome and some output DLIs to be conducted under the attached transaction TA, have been established. Verification of the other DLIs will be based on policy documents published by GED; data generated by GED's management information system; and reviews, evaluations, and inspections conducted by GED's pool of experts. GED, through its PMO, will prepare and submit to ADB semiannual program implementation progress reports no later than 8 weeks after the close of the first (January–June) and second (July–December) halves of each year. ADB will undertake review missions annually to verify the achievement of DLIs, review general program progress, and discuss annual work plans and budgets.

C. Managing Risks and Improving Capacity

29. The soundness assessment confirmed that the program is justified for (i) its support for the public provision of TVET, and relevance to economic development and poverty reduction in GZAR; (ii) its effectiveness in achieving the intended results, efficiency and economy in the use of the program resources, and sustainability of the program results; (iii) its economic viability and financial sustainability; and (iv) its soundness of implementation arrangements.

30. The overall risk of the RBL program was assessed as moderate. The key risks identified include (i) limited capacity of selected TVET institutions to complete self-improvement projects or meet provincial standards for model TVET institutions within 3 years, which would negatively affect the achievement of the program outcome; (ii) unavailability of measures to close the funding gap, which could potentially slow down the program implementation; (iii) inadequate staff capacity for internal audit at GED and TVET institutions to ensure the efficiency and effectiveness of fund use; (iv) inadequate safeguards screening, planning, and monitoring to comply with safeguards requirements; and (v) broader economic and political contexts discouraging exchanges and cooperation activities between TVET institutions and enterprises in GZAR and ASEAN countries.

31. Some of the risks will be mitigated through DLIs and related program actions. Regarding the self-improvement projects, GED and its expert groups will develop and issue detailed guidelines to guide the selection of TVET institutions and the development, planning, and implementation of self-improvement projects by selected TVET institutions. The selection of TVET institutions will be verified through DLI 5, while the development of detailed requirements, monitoring, reporting, and evaluation has been included in the program action plan. In relation to exchanges and cooperation activities, GED will guide TVET institutions to establish partnership agreements for long-term cooperation between TVET institutions and enterprises in GZAR and ASEAN countries, which could withstand changes in broader economic and political contexts. Partnership agreements will be verified through DLI 8.

32. Other risks will be mitigated through program actions and capacity development activities supported under the attached TA. Concerning the weaknesses in internal audit at GED and TVET institutions, a financial management specialist will be engaged under the TA to provide training for audit staff on modern risk-based approaches to internal control, and an action plan to strengthen internal audit will be developed and implemented. With regard to the compliance with safeguards requirements, adequate staff will be assigned at the PMO to act as safeguards coordinators. An environment specialist, resettlement specialist, and social development and gender specialist will be engaged under the TA to support screening, planning, monitoring, and reporting by TVET institutions.

33. Regarding the unavailability of measures to close the funding gap, savings could be expected from available funds as the GZAR government implements actions to increase efficiency in the use of funds. Moreover, more budgets may be allocated from the PRC and GZAR governments, as they plan to increase budgets for TVET relative to general education, as the share of the TVET budget in the total education budget is small, despite the importance of TVET as a driver of economic growth. As the GZAR government reports revenue surplus annually, and the TVET budget accounts for less than 2% of the GZAR government revenue, the government is likely able to provide funds if loans or other financing cannot be obtained.