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(For consideration by the Board on or about 8 December 2015)

R149-15  
17 November 2015

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

1. The Report and Recommendation of the President (RRP: PRC 48101-003) on the proposed results-based loan and technical assistance grant to the People's Republic of China for the Guizhou Vocational Education Development Program is circulated herewith.
2. This Report and Recommendation should be read with *Country Operations Business Plan: People's Republic of China, 2015–2017*, which was circulated to the Board on 25 February 2015 (DOC.IN.53-15).
3. This Report and Recommendation is being submitted to the Board for discussion as it does not meet the following criterion for summary procedure: (vi) the project should not involve use of a complementary financing scheme or a novel financing arrangement.

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

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Project Number: 48101-003  
November 2015

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

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Asian Development Bank

## CURRENCY EQUIVALENTS

(as of 15 October 2015)

Currency unit	–	yuan (CNY)
CNY1.00	=	\$0.1574
\$1.00	=	CNY6.353

## ABBREVIATIONS

ADB	–	Asian Development Bank
DLI	–	disbursement-linked indicator
GED	–	Guizhou Education Department
GPFD	–	Guizhou Provincial Finance Department
GPG	–	Guizhou Provincial Government
GVEDP	–	Guizhou Vocational Education Development Program
M&E	–	monitoring and evaluation
MIS	–	management information system
PAP	–	program action plan
PMO	–	program management office
PRC	–	People's Republic of China
RBL	–	results-based lending
TA	–	technical assistance
TVET	–	technical and vocational education and training

## NOTES

- (i) The fiscal year (FY) of the Government of the People's Republic of China ends on 31 December.
- (ii) In this report, "\$" refers to US dollars.

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## RESULTS BASED PROGRAM AT A GLANCE

<b>1. Basic Data</b>		<b>Project Number: 48101-003</b>	
<b>Project Name</b>	Guizhou Vocational Education Development Program	<b>Department /Division</b>	EARD/EASS
<b>Country Borrower</b>	China, People's Republic of China, People's Republic of	<b>Executing Agency</b>	Guizhou Provincial Government (EA)
<b>2. Sector</b>	<b>Subsector(s)</b>	<b>ADB Financing (\$ million)</b>	
✓ <b>Education</b>	Technical and vocational education and training		150.60
		<b>Total</b>	<b>150.60</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
<b>4. Drivers of Change</b>	<b>Components</b>	<b>Gender Equity and Mainstreaming</b>	
Governance and capacity development (GCD)	Client relations, network, and partnership development to partnership driver of change Institutional development	Some gender elements (SGE)	✓
Knowledge solutions (KNS)	Knowledge sharing activities Pilot-testing innovation and learning		
<b>5. Poverty Targeting</b>		<b>Location Impact</b>	
Project directly targets poverty	Yes	Rural	Medium
Geographic targeting (TI-G)	Yes	Urban	Medium
<b>6. Risk Categorization:</b>	Low		
<b>7. Safeguard Categorization</b>	Environment: B Involuntary Resettlement: B Indigenous Peoples: B		
<b>8. Financing</b>			
<b>Modality and Sources</b>		<b>Amount (\$ million)</b>	
<b>ADB</b>		<b>150.60</b>	
Sovereign Capacity development technical assistance: Technical Assistance Special Fund		0.60	
Sovereign Results Based Lending: Ordinary capital resources		150.00	
<b>Cofinancing</b>		<b>0.00</b>	
None		0.00	
<b>Counterpart</b>		<b>1,460.00</b>	
Government		1,340.00	
Others		120.00	
<b>Total</b>		<b>1,610.60</b>	
<b>9. Effective Development Cooperation</b>			
Use of country procurement systems		Yes	
Use of country public financial management systems		Yes	

## I. THE PROPOSAL

1. I submit for your approval the following report and recommendation for a proposed loan to the People's Republic of China (PRC) for the Guizhou Vocational Education Development Program (GVEDP). The report also describes proposed technical assistance (TA) for capacity development for the GVEDP, 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 proposed Asian Development Bank (ADB) assistance will support the Guizhou Provincial Government (GPG) to improve the quality of technical and vocational education and training (TVET) in the province, and to make TVET more relevant to employers' needs. Developing high-quality TVET is a GPG priority for expanding and developing the provincial workforce to facilitate continued inclusive economic growth, reduce rural poverty, and to improve the employment prospects of young workers seeking jobs.<sup>2</sup>

## II. THE PROGRAM

### A. Strategic Context

3. The PRC faces a structural mismatch between the supply and demand of workers and appropriate education and skills. The government is increasingly emphasizing the value of highly skilled human capital, which accounted for 38.1% of the PRC's economic growth during 1978–2008.<sup>3</sup> In 2010, the government approved the National Long-Term Strategy on Education Reform and Development, 2010–2020, identifying TVET as the main strategy for educational expansion to develop a skilled workforce. Making the TVET system more responsive to economic growth needs and strengthening links between TVET and industry are essential to supply the skills needed for the envisioned structural economic transformation of the country.

4. Guizhou is a landlocked province in the southwestern region of the PRC and is among the least developed in terms of socioeconomic development. Home to about 35 million permanent residents, Guizhou has high levels of poverty. About 7.5 million of the province's rural population living below the national poverty line (CNY2,300 per year) are concentrated in the mountainous region in the western part of the province, while 5.0 million of its total population are internal migrant workers. The province has the lowest per capita gross domestic product in the country (approximately \$3500, or 50% of national GDP per capita) and low levels of industrialization. Its growth is largely reliant on agriculture and traditional services, and public services lag far behind the national average. However, GPG's ambitious plans to modernize and diversify the province's economy to close the gap in economic output relative to richer provinces have resulted in rapid economic growth, averaging 12% since 2010.<sup>4</sup>

5. To meet the demands of a rapidly growing and diversifying economy, Guizhou needs an expanded workforce with high-level skills that is supported by an upgraded TVET system. Currently, Guizhou is facing a severe shortage of highly skilled workers in priority sectors such as construction, logistics, light industry equipment manufacturing, information technology,

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

<sup>2</sup> ADB provided program preparatory TA to the People's Republic of China for Preparing the Guizhou Vocational Education Development Program (TA 8696).

<sup>3</sup> J. Whalley and X. Zhao. 2010. The Contribution of Human Capital to China's Economic Growth. *NBER Working Paper*. No. 16592. Cambridge: National Bureau of Economic Research. <http://www.nber.org/papers/w16592>.

<sup>4</sup> Official Guizhou Provincial Government data based on national poverty line statistics from the National Statistics Office for 2014.

agricultural engineering, and tourism. For example, highly skilled workers comprise only 0.6% of the total workforce in the construction sector.<sup>5</sup> This reflects several underlying issues, including low enrollment in TVET colleges (lower than national targets), a high student–teacher ratio (30:1, the fourth highest ratio nationally), inadequate relevance of the curricula to labor market needs, and weak capacity of TVET teachers (with 16% failing to meet the requirement for academic qualifications).<sup>6</sup> As the economy continues to diversify and grow with new occupations needing new and upgraded skills, so does the demand for skilled graduates. GPG’s strategy is to align TVET to the needs of employers and raise the socioeconomic status of its poor households by improving their employment prospects.<sup>7</sup> To achieve this, the province has launched the Guizhou Modern TVET System Establishment Plan 2013–2020, a medium-term sector reform program, backed by increases in financing since 2010 to expand student enrollment and improve the quality of demonstration TVET secondary schools and tertiary colleges (collectively referred to as “Demonstration TVET Institutions”).<sup>8</sup>

## B. Program Rationale

6. The GVEDP will support the PRC’s strategy to develop human resources and play a demonstration role for other provinces in the western region. Strengthening human resources is one of the priorities under the government’s five-year plan and policy directives of the Third Plenary Session of the 18th Central Committee of the Communist Party of China, and the National Long-Term Strategy on Education Reform and Development, 2010–2020.<sup>9</sup> The long-term strategy aims for greater education investment and sets TVET targets, including for transforming some schools and colleges into model or demonstration institutions to promote sharing of quality resources. The GVEDP will contribute to poverty reduction and inclusive growth in Guizhou Province by improving skills and employment outcomes. It is aligned with ADB’s country partnership strategy, 2011–2015 for the PRC, the recommendations of the Midterm Review of Strategy 2020 and with ADB’s education sector strategies which prioritize TVET to address the human resource agenda.<sup>10</sup> GVEDP also incorporates lessons from ADB’s past and ongoing assistance in PRC’s education sector, including the need to strengthen education relevance to growth sectors.

7. The results-based lending (RBL) modality is the most suitable to support GPG’s medium-term TVET reforms. As part of consolidation strategy in the sector reform plan, a TVET town has been established with joint financing from GPG, the Guiyang Municipal Government, and Qingzhen town government, where some 25 TVET institutions are relocating for increased classroom and dormitory capacity, greater interactivity, and coordination with industry.<sup>11</sup> These institutions have initiated their long-term plans with central, provincial, and local financing, but face financing and capacity gaps to realize their full potential as demonstration institutions. In summary, Guizhou has a solid foundation for improving the TVET system, including policies

<sup>5</sup> People’s Republic of China. 2014. Guizhou Provincial Statistics Office. Guizhou.

<sup>6</sup> People’s Republic of China. 2013. Guizhou Education Department. Guizhou.

<sup>7</sup> Employer-based survey data from Guizhou shows a satisfaction rate of 91% for secondary TVET and 95% for tertiary TVET graduates, but still shows a high response rate desiring better management and technical skills.

<sup>8</sup> Guizhou Provincial Government. 2013. *Guizhou Modern TVET System Establishment Plan, 2013–2020*, Guizhou.

<sup>9</sup> The Decision on Major Issues Concerning Comprehensively Deepening Reforms. Document of the Third Plenary Session of the 18th Central Committee of the Communist Party of China, 2013.

<sup>10</sup> ADB. 2012. *Country Partnership Strategy: People’s Republic of China, 2011–2015*. Manila (ADB’s strategy includes a pillar on inclusive growth and outlines the importance of investing in TVET to upgrade labor skills and enhance inclusiveness); ADB. 2014. *Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and the Pacific*. Manila; and ADB. 2010. *Education by 2020: A Sector Operations Plan*. Manila.

<sup>11</sup> The Guiyang Municipal Government has committed CNY200 million to the Qingzhen TVET town in the outskirts of Guiyang. Currently there are 17 Demonstration Schools and Colleges, and will increase under the reform program.

(such as free secondary TVET education), commitment (a long-term sector plan), and financing, but needs to ensure a stronger focus on improving the quality of learning. To translate this commitment into results and to keep the reforms on track, the nature of the challenges requires a results- and system-based approach. The RBL will also reduce transaction costs associated with investment project requirements, enable ADB's financing to leverage wider provincial TVET reforms, and strengthen the policy dialogue for future priorities of the TVET reform program.

8. ADB financing will add value by incentivizing improvements in TVET quality and capacity, particularly through teacher training, development of competency based curriculum, modernized training facilities, and system-wide sharing of TVET reforms. ADB's convening power to bring international experience in using RBL to promote sector reform, knowledge sharing and dissemination of lessons learned is highly valued by the PRC and Guizhou governments. This approach for using and strengthening country systems is appreciated and is already being proposed for additional programs in the PRC.

### C. Program Scope

9. The proposed GVEDP (Table 1) will support the Guizhou Modern TVET System Establishment Plan, 2013–2020 by developing vocational education in secondary schools and colleges that meets Guizhou's long-term development needs through an inclusive and responsive TVET system. An innovative program that uses RBL to keep the medium-term TVET reform plan on track, it will finance part of the government's province wide TVET reform program to support consolidation, increased education opportunities for students from poor counties, and improved quality and capacity.

**Table 1: Program Scope**

<b>Item</b>	<b>Government Program</b>	<b>ADB RBL Program (GVEDP)</b>
<b>Outcome</b>	A strengthened TVET system	An inclusive and responsive TVET system
<b>Key outputs</b>	<ul style="list-style-type: none"> <li>(i) Quality TVET institutions developed in Guizhou</li> <li>(ii) Quality of TVET improved</li> <li>(iii) Industry partnerships expanded</li> <li>(iv) TVET system reformed</li> </ul>	<ul style="list-style-type: none"> <li>(i) Quality of teaching in TVET institutions strengthened</li> <li>(ii) Responsiveness of TVET institutions to labor markets improved</li> <li>(iii) TVET management capacity strengthened</li> </ul>
<b>Activity types</b>	<ul style="list-style-type: none"> <li>(i) Development of provincial demonstration TVET institutions</li> <li>(ii) CBC development</li> <li>(iii) Establishment of TVET resource center</li> <li>(iv) Human resource development</li> <li>(v) Capacity development and coordination</li> </ul>	<ul style="list-style-type: none"> <li>(i) Select demonstration TVET institutions' facilities upgraded</li> <li>(ii) Industry-responsive CBC developed and implemented by national demonstration schools and colleges</li> <li>(iii) Management training for strengthened capacity conducted</li> <li>(iv) Provincial TVET management and monitoring system established</li> </ul>
<b>Program expenditure</b>	\$1,610 million (2016–2019)	\$150 million
<b>Main financiers and the respective financing amounts</b>	GPG and local governments in Guizhou	ADB (100%)
<b>Geographic coverage</b>	The whole of Guizhou Province	Demonstration TVET Institutions and Guizhou TVET Schools and Colleges
<b>Implementation period</b>	2013–2020	2016–2019

ADB = Asian Development Bank, CBC = competency-based curriculum, GPG = Guizhou Provincial Government, GVEDP = Guizhou Vocational Education Development Program, RBL = results-based lending, TVET = technical and vocational education and training.

Source: Asian Development Bank.

## D. Program Results

10. In line with national education reform strategies, the GVEDP's impact will be an adequately trained human resource base that meets the province's long-term economic development needs and maintains social harmony by uplifting the status of its population from poor and ethnic minority communities. The outcome will be an inclusive and responsive TVET system, measured by the number of graduates produced by the Demonstration TVET Institutions. This will be achieved through the following outputs:

- (i) **Output 1: Quality of teaching in TVET institutions strengthened.** The GVEDP will transform the learning environment by modernizing and upgrading teaching and learning facilities in Demonstration TVET Institutions and training teachers across Guizhou TVET schools and colleges. These institutions will provide access to students and teachers from remote areas. To achieve this, the GVEDP will (a) increase the number of practical training facilities in Demonstration TVET Institutions, and (b) train teachers across the province to strengthen their pedagogical skills and subject knowledge, including knowledge of relevant industry occupational standards, and use of student-centered teaching strategies and information and communication technology for teaching.
- (ii) **Output 2: Responsiveness of TVET institutions improved.** The Demonstration TVET Institutions cater to competency-based requirements of industry in priority sectors, including construction, logistics, light industry equipment manufacturing, information technology, agricultural engineering, and tourism. The GVEDP will develop an updated competency-based curriculum, with associated learning material and teachers' guides, that meets the needs of occupations in the priority industries. These will be developed and implemented by Demonstration TVET Institutions for selected majors. Additionally, training, student knowledge, and practical skills will be enhanced through school–enterprise cooperation.
- (iii) **Output 3: TVET management capacity strengthened.** The Guizhou TVET system is made up of selected demonstration schools and colleges located mostly in the main cities and the larger less-resourced schools and colleges scattered across the province. Provincial coordination mechanisms, particularly for quality assurance and monitoring, are relatively weak. The GVEDP will (a) train school and college managers to improve capacity for implementing institutional TVET reforms; (b) establish and strengthen a provincial TVET management and monitoring system, including an integrated management information system (MIS) platform to improve program planning and coordination; and (c) improve provincial coordination between departments and institutions responsible for TVET.

11. The RBL program has a robust and comprehensive results framework.<sup>12</sup> The GVEDP will support key results from this program results framework via disbursement-linked indicators (DLIs).<sup>13</sup> The disbursement allocation is in Table 2. Six DLIs have been selected to focus on the main elements of the results chain and framework and comprise activities and outputs that are

<sup>12</sup> Program Results Framework (accessible from the list of linked documents in Appendix 2).

<sup>13</sup> DLI targets, definitions, verification protocols, and an indicative disbursement schedule are in Appendix 3.

achievable and measurable during the four-year program.<sup>14</sup> These DLIs represent ADB's value added and are important measures of improved quality of teaching, improved responsiveness of TVET institutions to priority industry needs, and strengthened management of the TVET system. The selected DLIs are essential for realizing the objectives of the provincial TVET plan to produce more skilled graduates that are employable in Guizhou's priority sectors.

**Table 2: Disbursement-Linked Indicators**

<b>Results</b>	<b>Indicator</b>	<b>Disbursement Allocated (\$ million)</b>	<b>Share of ADB Financing (%)</b>
<b>Outcome</b>	Skilled graduates relevant to Guizhou's economic growth sectors produced by Demonstration TVET Institutions	15.0	10.0
An inclusive and responsive TVET system developed			
<b>Output 1</b>	Better facilities for quality practical training in Demonstration TVET Institutions	30.0	20.0
Quality of teaching in TVET institutions strengthened			
	Teachers trained in Guizhou's TVET schools and colleges	30.0	20.0
<b>Output 2</b>	Industry-responsive CBC developed and implemented by Demonstration TVET Institutions for selected majors	22.5	15.0
Responsiveness of TVET institutions improved			
<b>Output 3</b>	Managers trained in the Demonstration TVET Institutions	22.5	15.0
TVET management capacity strengthened			
	Provincial TVET management and monitoring system established	30.0	20.0
	<b>Total</b>	<b>150.0</b>	<b>100.0</b>

ADB = Asian Development Bank, CBC = competency-based curriculum, TVET= technical and vocational education and training.

Source: Asian Development Bank.

## E. Expenditure Framework and Financing Plan

12. **Program expenditures.** The total TVET reform program expenditures are estimated to be \$1,610 million from 2016 to 2019 (Table 3), which include incremental TVET school operating budgets, construction of new TVET infrastructure, and capacity-building and reform initiatives. The total costs of the GPG 2013–2020 TVET expenditure plan, including school recurrent and operating costs, are estimated to be \$14.3 billion.

**Table 3: Summary of Program Expenditure Framework**  
(in 2015 prices)

<b>Item</b>	<b>Provincial TVET (2013–2020)</b>		<b>TVET Reform Program (2016–2019)</b>	
	<b>Amount (\$ million)</b>	<b>Share of Total (%)</b>	<b>Amount (\$ million)</b>	<b>Share of Total (%)</b>
1. Recurrent budget	7,970	55.6	925	57.5
2. Civil works and equipment	6,260	43.7	676	42.0
3. Training and capacity development	92	0.6	8	0.5
<b>Total</b>	<b>14,322</b>	<b>100.0</b>	<b>1,610</b>	<b>100.0</b>

TVET= technical and vocational education and training.

Note: Numbers may not sum precisely because of rounding.

Source: Asian Development Bank.

<sup>14</sup> While it is not feasible to link disbursements to learning outcomes which require a longer time to achieve, the program team is planning to implement an impact evaluation of learning outcomes in Guizhou using separate resources to assess the impacts of various aspects of the program's interventions in 2016–2018.

13. **Program financing.** The government has requested a loan of \$150 million from ADB's ordinary capital resources to help finance the TVET reform program. GPG will provide \$1,340 million for the program, and an estimated \$120 million will come from student tuition fees. While a small share, ADB financing adds value with incentives for quality and capacity improvements. The financing plan is summarized in Table 4. The loan will have a 26-year term, including a grace period of 5 years, straight-line repayment, 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 and program agreements. Based on this, the average loan maturity is 15.75 years and the maturity premium payable to ADB is 0.10% per annum.<sup>15</sup>

**Table 4: Program Financing Plan (TVET Reform Program)**

Source	Amount (\$ million)	Share of Total (%)
Guizhou Provincial Government	1,340	83.2
Technical and Vocational Education and Training Student Tuition Fees	120	7.5
Asian Development Bank (Ordinary capital resources loan)	150	9.3
<b>Total</b>	<b>1,610</b>	<b>100.0</b>

Source: Asian Development Bank.

14. **Disbursement arrangements.** The ADB loan will be disbursed over 4 years subject to the achievement and verification of the DLIs. The initial disbursement will be after loan effectiveness and upon verification of the prior results, and includes advance financing for year 1 DLIs in the amount of \$15 million. GPG has put much effort and resources into its TVET improvement plan. By 31 December 2015, the Guizhou Education Department (GED) will have prepared a provincial teachers' training plan, as well as a provincial management training plan, and at least eight GVEDP schools and colleges will have submitted to GED their training base upgradation plans for agreement by ADB. These actions, which will be taken 1 year before the planned loan effectiveness, will provide a strong foundation for implementing the GVEDP effectively. Twenty percent of the loan will be released against these prior results, and subsequent disbursements will be made after the relevant DLIs have been met. The Guizhou Provincial Finance Department (GPF) will submit withdrawal applications along with evidence verifying the achievement of the DLIs. Disbursements are allowed for early or late achievement of DLIs. Partial disbursement is allowed for certain DLIs, as noted in the verification protocols. The program management office (PMO) will collect all reports and information necessary to verify achievement and prepare a draft DLI achievement report that will be submitted to GPF, which will prepare the withdrawal application and submit it to ADB accompanied by the evidence of DLI achievement. Where ADB identifies issues with DLI achievement, it will relay its concerns to the PMO and GPF within 1 month of its receipt of the withdrawal application for further verification. The loan proceeds will be disbursed to the designated account maintained by GPF. Onward disbursement will follow internal funds flow mechanisms established for GVEDP by GPG.

## F. Capacity Development and Program Action Plan

15. While there is reasonably sound capacity in GED to implement GVEDP effectively, capacity development and monitoring of program actions are needed to ensure that the overall results framework is implemented, monitored, and updated to remain a relevant feature of the

<sup>15</sup> Loan Agreement and Program Agreement (accessible from the list of linked documents in Appendix 2).

Modern TVET System Establishment Plan. A detailed program action plan (PAP) has been agreed.<sup>16</sup>

### **G. Technical Assistance**

16. The capacity development TA is estimated to cost \$650,000, of which \$600,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-other sources). It has four outputs: (i) an enhanced GED monitoring and evaluation (M&E) system to ensure effective implementation of the DLIs and PAP by developing an integrated MIS to enable comprehensive program monitoring (disaggregated by sex and ethnicity), analysis, and reporting; (ii) support for specific GVEDP activities, including TVET quality at the institutional and system level; (iii) capacity building for strengthening program systems, including fiduciary, safeguards and M&E; and (iv) action research and knowledge sharing, and dissemination of good practices and lessons learned from GVEDP implementation to other provinces in the PRC. GPG, as executing agency of the TA, will support the TA in the form of counterpart staff, office accommodation, and other in-kind contributions.<sup>17</sup>

### **H. Implementation Arrangements**

17. GPG will be the executing agency and will set up an interagency program leading group that includes representatives from all relevant provincial departments to oversee GVEDP progress. GED has been assigned to lead and oversee TVET reform, but most GVEDP implementation activity has been delegated to participating schools. A PMO will be formally established by GPG to be responsible for day-to-day coordination, program management, and progress monitoring. The implementation period of the proposed program is 1 January 2016 to 31 December 2019, with activities undertaken during 2015 qualifying for loan disbursement under "payment for prior results."<sup>18</sup>

## **III. SUMMARY OF ASSESSMENTS**

### **A. Program Technical Assessments**

18. Technical due diligence has been performed to ensure that the intended outcome of GVEDP (i) is achievable through the planned program activities, (ii) is aligned with government economic development planning, (iii) has a clear results framework with a well-defined baseline performance, (iv) is economically justified, and (v) is financially viable and sustainable. This due diligence is presented in a program soundness assessment, with further technical and financial details provided in other linked documents.<sup>19</sup>

19. The economic analysis confirms that public financing is justified for the program, is provided in an efficient manner, and is sustainable. Financial viability is largely assured as expenditure estimates are based on recent local experience, and are budgeted for in government plans with financing sources already identified. Incremental operation costs are within the planned growth of the GPG education budget as TVET is an increasingly important education sector priority. The economic justification for the GVEDP stems from (i) the increasing demand from employers for skilled workers as the economy further modernizes and develops,

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

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

<sup>18</sup> ADB. 2013. *Piloting Results-Based Lending for Programs*. Manila.

<sup>19</sup> Program Soundness Assessment, Program Results Framework, Program Results Assessment, and Program Expenditure and Financing Assessment (all accessible from the list of linked documents in Appendix 2).

with TVET being the main supplier of such skills; (ii) higher wages earned by TVET graduates relative to unskilled workers, with highly skilled workers commanding an extra premium; (iii) facilitating the planned transition from a rural to largely urban economy; and (iv) assessing the poverty alleviation effect of continued economic growth.

20. GVEDP has a strong pro-poor and gender focus. Its emphasis on TVET quality and capacity improvement will result in wider opportunities for both female and male students. In the PRC, students from poorer and predominantly rural backgrounds commonly rely on TVET education as a means to acquire skills that would allow them to gain employment in the modern industrial economy. GVEDP will also benefit ethnic minority students, a disproportionate number of whom come from high-poverty rural counties. The results framework has a sex-disaggregated baseline and target indicators justifying the “some gender elements” categorization.

## **B. Program Systems Assessments**

21. **Monitoring and evaluation system.** The M&E system assessment confirms that MIS in the schools captures sex-disaggregated data on students, teachers, and managers, and will help track the outputs and outcome. However, it does not currently capture data on ethnicity as a matter of routine and M&E arrangements for TVET at the provincial level are quite fragmented. The TA will develop an integrated MIS platform within GED to monitor and report on TVET system performance and inclusiveness (DLI 6).

22. **Fiduciary systems.** GVEDP will use country fiduciary systems with respect to public financial management, procurement, and anticorruption. These systems were assessed to determine the degree to which they will be able to manage fiduciary risks and provide assurance that RBL program funds are used for their intended purposes, with due consideration for economy and efficiency.<sup>20</sup> Mitigating measures to manage fiduciary risks are included in the PAP and the program implementation document.<sup>21</sup>

23. The financial management assessment confirms that an adequate financial management system exists in GPG and the Demonstration TVET Institutions, with sound budgeting, payment, accounting, and auditing procedures and practices. The overall risk level is low to moderate, with weak internal audit capacity as the main constraint. The government requires separate management, utilization, accounting, and auditing of foreign funds. The Guizhou Provincial Audit Office will be delegated by the PRC’s National Audit Office to undertake annual audits to confirm all ADB loan proceeds have been used for legitimate purposes under GVEDP. An annual audit report will be submitted within 6 months of the end of each fiscal year.

24. The procurement system assessment confirms that the procurement framework is aligned with the principles of competition, efficiency, economy, transparency, fairness, and equal opportunity, and that reasonable capacity is in place to carry out procurement in accordance with these principles. Procurement involving high-value contracts will be excluded from ADB funding.<sup>22</sup>

25. The anticorruption assessment concludes that the risks of fraud and corruption for

<sup>20</sup> Program Fiduciary Systems Assessment (accessible from the list of linked documents in Appendix 2).

<sup>21</sup> Program Implementation Document (accessible from the list of linked documents in Appendix 2).

<sup>22</sup> Amounts are currently \$50 million for works, turnkey and supply, and installation contracts; \$30 million for goods; \$20 million for information technology systems and nonconsulting services; and \$15 million for consulting services.

GVEDP and the education system are limited and similar to other sectors. This is mainly in the areas of financial management and procurement, involving lapses in individual integrity rather than system wide risks. The PRC has promulgated extensive laws and regulations for clean government and anticorruption, and in recent years far more actions are being taken against the perpetrators of fraud and corrupt practices. The government is also taking more action to make it easier to report suspicions, and to strengthen discipline inspection and prosecutions. In Guizhou, GED has also issued documents to regulate teacher behavior and enhance anticorruption in the education sector. 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 government and GPG (footnote 19).

26. **Safeguard systems.** A program safeguard systems assessment was prepared for the GVEDP and discussed with program stakeholders.<sup>23</sup> The assessment confirms the safeguard categorization of B for environment, involuntary resettlement, and indigenous peoples. Activities under Output 1 will involve civil works on existing campuses that may have some temporary and site specific environmental impacts, with ongoing resettlement with some households in transition due to land acquired historically to construct new TVET campuses for some of the Demonstration TVET Institutions. GVEDP's activities have impacts on ethnic minorities that are mainly positive, with the need to maintain or improve inclusiveness. Good practices include (i) the preparation of a strategic environment assessment for the Qingzhen TVET town, as well as an environmental impact assessment, including an environmental management plan for each TVET campus targeted under Output 1; (ii) land acquisition, compensation, and fund disbursement were done in accordance with applicable PRC and local regulations, and affected households were satisfied with the compensation package; and (iii) the poverty and social analysis confirmed that the PRC and Guizhou have a supportive policy framework for ethnic minorities and systemic issues are related to their inclusion. Specific weaknesses include (i) the method and timing of disclosure of environmental impact and monitoring reports, and public engagement during the construction of new facilities; (ii) follow up monitoring to determine whether adequate housing has been obtained and whether income restoration measures have been effective; and (iii) weak systemic disaggregated monitoring and reporting on enrollment, retention and graduation rates.

27. Agreed actions to strengthen program safeguard systems include (i) for environment, monitoring, reporting, and public engagement arrangements (covering information disclosure, consultation, and grievance redress); (ii) for involuntary resettlement, the engagement of an external monitor to conduct semiannual monitoring and reporting on the progress of pending resettlement and livelihood restoration activities, and a sample survey of affected households to confirm income recovery and resolution of grievances (if any); and (iii) for indigenous people, better monitoring, reporting, and consulting to promote inclusiveness. Institutional strengthening for program safeguards will be supported by the capacity development TA.

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

28. An integrated risk assessment considered potential risks associated with (i) program results, (ii) expenditures and financing, (iii) fiduciary systems, and (iv) the operating environment. The main risks and mitigating measures are summarized in Table 5.<sup>24</sup> The assessment concludes that benefits and impacts are expected to outweigh the costs, with overall moderate program risk.

<sup>23</sup> Program Safeguard Systems Assessment (accessible from the list of linked documents in Appendix 2).

<sup>24</sup> Integrated Risk Assessment and Mitigating Measures (accessible from the list of linked documents in Appendix 2).

**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 are unable to recruit quality teachers and instructors to deliver TVET programs effectively.	H	Recognized by GPG as a key issue in the Guizhou Modern TVET System (2013–2020). GED's efforts for TVET rationalization and teacher training, supported by GVEDP, will focus on improving the quality of teachers and teaching.
M&E systems in GED prove inadequate for results framework and DLI verification.	S	GVEDP includes a DLI to strengthen the M&E systems, which will also be supported by a TA. The DLI verification has been through detailed consultation to confirm its robustness.
<b>Expenditures and Financing</b>		
GVEDP cost estimates prove too low or high to effectively implement it.	M	Cost estimates have been computed using realistic assumptions. Construction of many new TVET facilities has taken place in recent years so construction cost estimates (large share of costs) are based on actual recent experience.
A shortage of budgetary resources results in the GVEDP proving unsustainable.	M	TVET is recognized as a facilitator of economic growth—GPG's top priority. TVET makes up a small proportion of the total education budget, and national and provincial policy is to increase its funding relative to general education.
<b>Fiduciary</b>		
The staffing levels and status of the internal audit function is weak	M	Audit staff are trained on modern risk-based approaches to improve audit efficiency and increase staff levels
Procurement systems prove inadequate to prevent corrupt activities and other abuse.	M	Involve and inspect the provincial supervision department, and increase transparency in the procurement process
<b>Operating Environment</b>		
Social bias operates against TVET, hindering growth in enrollments.	S	Recognized as a national issue, with public awareness campaigns to emphasize the value of a TVET education planned.
Commitment of GED and TVET institutions for reforms is not sustained.	M	The RBL approach encourages reforms that are needed to improve TVET system performance.
<b>Overall RBL program risk</b>	<b>M</b>	

DLI = disbursement-linked indicator, GED = Guizhou Education Department, GPG = Guizhou Provincial Government, GVEDP = Guizhou Vocational Education Development Program, H = high, M&E = monitoring and evaluation, M = moderate, RBL = results-based lending, S = substantial, TA = technical assistance, TVET = technical and vocational education and training.

Source: Asian Development Bank.

#### IV. ASSURANCES

29. The government and the GPG have agreed with ADB on certain covenants for the RBL program, which are set forth in the loan agreement and the program agreement.

#### V. RECOMMENDATION

30. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Asian Development Bank and recommend that the Board approve the loan of \$150,000,000 to the People's Republic of China for the Guizhou Vocational Education Development Program, from ADB's ordinary capital resources, 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

16 November 2015

## DESIGN AND MONITORING FRAMEWORK

<b>Impacts the Results-Based Lending Program is Aligned with</b> National education reforms implemented (National Long-Term Strategy on Education Reform and Development, 2010–2020) <sup>a</sup> An adequately trained human resource base that meets the province’s long-term economic development needs and maintains social harmony by uplifting the status of its population from poor and ethnic minority communities developed (Guizhou Modern TVET System Establishment Plan, 2013–2020) <sup>b</sup>			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
<b>Outcome</b> An inclusive and responsive TVET system developed	Number of graduates from 17 Demonstration TVET Institutions increases from 30,279 annually (baseline in 2013) to 34,000 annually by 2019, disaggregated by sex, ethnicity, and rural or urban, poor or non-poor (DLI 1)	School records with annual reporting (TVET schools and colleges, GED)	Social and cultural biases against TVET hinder enrollments
<b>Outputs</b> 1. Quality of teaching in TVET institutions strengthened	1a. 15 additional practical training bases constructed in Demonstration TVET Institutions by 2019, (DLI 2) (2014 baseline: 30) 1b. 8,000 additional teachers trained in pedagogy and subject knowledge across Guizhou TVET schools and colleges by 2019 (at least 40% will be female and 30% from ethnic minority) (DLI 3) (2014 baseline: 0) 1c. Learning resources with ICT for at 23 additional subjects developed in the Demonstration TVET Institutions (Program Results Framework) (2014 baseline: 502) 1d. Curriculum Development Guidance Committees established in the Demonstration TVET Institutions, from baseline of 0 to one in each Demonstration TVET Institution (Program Results Framework) 1e. GED to participate in the MOE's monitoring and evaluation system for quality assurance for vocational schools <sup>c</sup> by 2019 (2014 baseline: not available)	1a–e. Schools to certify and GED to verify	TVET institutions are unable to recruit enough quality teachers and instructors to deliver TVET programs effectively
2. Responsiveness of TVET institutions improved	2a. 8 Demonstration TVET Institutions to prepare and/or update and implement industry-responsive CBC with associated learning materials and teachers' guides for at least 2 majors each by 2019 (DLI 4) (2014 baseline: 0) 2b. Number of enrolled students in the 17 Demonstration TVET Institutions (disaggregated by gender and ethnic origin) to reach 47,800 by 2019 (Program Results Framework) (2014 baseline: 47,000)	2a. Schools to certify and GED to verify  2b. School records and GED to verify	Industry and enterprise do not participate fully in developing and delivering effective training programs

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
3. TVET management capacity strengthened	<p>3a. At least 800 managers trained in school management and TVET reforms by 2019 with at least 20% female and 20% from ethnic minority groups and based on the GED-prepared Management Training Plan (DLI 5) (2014 baseline = 0)</p> <p>3b. An integrated management information system platform for TVET developed by end 2017 (DLI 6) (baseline: not developed)</p>		
<p><b>Key Program Actions</b></p> <p><b>1. Outcome. An inclusive and responsive TVET system</b></p> <p>1.1 All results and other monitoring data to be recorded and reported in a form that allows results to be analyzed and disaggregated by gender, ethnicity, urban/rural, and poor/non-poor in order to allow access, performance, and other anomalies between social groups to be readily identified and investigated.</p> <p><b>2. Output 1. Quality of Teaching in TVET Institutions Strengthened</b></p> <p>2.1 GED to make an early application to join the MOE's monitoring and evaluation system for vocational schools, namely the Diagnosis and Improvement monitoring and evaluation program (footnote 1).</p> <p>2.2 GED to comply with the MOE requirement that vocational colleges nationwide to accept the talents cultivation evaluation every 5 years, and consider the implications of introducing a similar evaluation arrangement for vocational secondary schools.</p> <p><b>3. Output 2. Responsiveness of TVET Institutions Improved</b></p> <p>3.1 All CBC and related learning materials prepared during the program under DLI 4 to be loaded to a central online repository and made accessible free of charge to all Guizhou TVET Schools and Colleges.</p> <p><b>4. Output 3. TVET Management Capacity Strengthened</b></p> <p>4.1 Supported by ADB technical assistance resources, GED to construct an integrated information platform to collect, analyze, and report on TVET school performance (including data and results analysis by gender, ethnic origin, urban or rural, and poor or non-poor) as well as data required to operationalize the GVEDP results framework.</p> <p>4.2 GPG to develop an integrated MIS platform by 31 December 2017.</p>			
<p><b>Financing Plan</b></p> <p>Total program financing from 2016 to 2019: \$1,610 million</p> <p>ADB: \$150 million</p> <p>Government: \$1,340 million</p> <p>TVET Institutions: \$120 million</p>			
<p><b>Assumptions for Partner Financing:</b> Not applicable.</p>			

ADB = Asian Development Bank, CBC = competency-based curriculum, DLI = disbursement-linked indicator, GED = Guizhou Education Department, GPG = Guizhou Provincial Government, GVEDP = Guizhou Vocational Education Development Program, ICT = information and communication technology, MIS = management information system, MOE = Ministry of Education, TVET = technical and vocational education and training.

Source: Asian Development Bank.

<sup>a</sup> People's Republic of China, Ministry of Education, Beijing, 2010.

<sup>b</sup> Guizhou Education Department, Guiyang, 2013.

<sup>c</sup> Ministry of Education. 2012. *Diagnosis and Improvement monitoring and evaluation program which provides a set of standards to move towards improved quality of learning*. Beijing.

**LIST OF LINKED DOCUMENTS**

<http://www.adb.org/Documents/RRPs/?id=48101-003-3>

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. Contribution to the ADB Results Framework
15. Development Coordination
16. Summary Poverty Reduction and Social Strategy
17. Program Implementation Document
18. Attached Technical Assistance

**Supplementary Documents**

19. Poverty and Social Analysis Summary Report
20. Land Acquisition and Involuntary Resettlement Due Diligence
21. Environment Safeguard System Assessment

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

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

DLIs	Baseline and Targets	Prior Results (2015)	2016	2017	2018	2019
<b>Outcome: An Inclusive and Responsive TVET System Developed</b>						
DLI 1 Demonstration TVET institutions produce skilled graduates relevant to Guizhou's economic growth	Target is to ensure graduation of skilled students Baseline: In 2013, 30,279 students graduated from the demonstration TVET institutions	n/a		32,000	33,000	34,000
<b>Output 1: Quality of Teaching in TVET Institutions Strengthened</b>						
DLI 2 Better facilities for quality practical training in the Demonstration TVET Institutions	Target is to increase the number of practical training bases in the Demonstration TVET Institutions to 45 Baseline: In 2014, there were 30 practical training bases in the demonstration TVET institutions	At least 8 demonstration TVET institutions submit to GED their Training Base Construction/ Upgradation Plans	At least 5 detailed designs are prepared by the demonstration TVET institutions for respective practical training bases and construction commenced only after securing requisite construction permits	5 practical training bases for which construction commenced in 2016 are completed  Additional 5 detailed designs are prepared by the demonstration TVET institutions for their respective practical training bases and construction commenced only after securing requisite construction permits	5 practical training bases for which construction commenced in 2017 are completed  Additional 5 detailed designs are prepared by the demonstration TVET institutions for their respective practical training bases and construction commenced and completed only after securing requisite construction permits	
DLI 3 Teachers trained in pedagogy and subject knowledge across Guizhou TVET schools and colleges	Target is to train 8,000 additional teachers in pedagogy and subject knowledge across Guizhou TVET schools and colleges (at least 40% of teachers	GED prepares Provincial Teachers' Training Plan, with annual targets	2,000 teachers trained in pedagogy and subject knowledge across Guizhou TVET schools and colleges according to the Training Plan	2,000 additional teachers trained in pedagogy and subject knowledge across Guizhou TVET schools and colleges according	2,000 teachers trained in pedagogy and subject knowledge across Guizhou TVET schools and colleges	2,000 teachers trained in pedagogy and subject knowledge across

DLIs	Baseline and Targets	Prior Results (2015)	2016	2017	2018	2019
	trained are female, and 30% teachers trained are from EM) Baseline: N/A			to the Training Plan		Guizhou TVET schools and colleges, to complete training of 8,000 teachers
<b>Output 2: Responsiveness of TVET Institutions Improved</b>						
DLI 4 Industry-responsive CBC with associated learning materials and teachers' guides developed and implemented by the Demonstration TVET Institutions for selected majors	Target is for 8 demonstration TVET institutions to prepare/update and implement industry-responsive CBC with associated learning materials and teachers' guides for at least 2 majors each Baseline: N/A	8 demonstration TVET institutions provide their CBC development plans to GED for collation and endorsement	All 8 demonstration TVET institutions initiate development of the CBC in at least 2 majors each	All 8 demonstration TVET institutions complete development of the CBC in at least 2 majors each	All 8 demonstration TVET institutions prepare associated learning materials and teachers' guides	
<b>Output 3: TVET Management Capacity Strengthened</b>						
DLI 5 Managers trained in the Demonstration TVET Institutions	Target is to train 800 managers (20% female and 20% from EM) Baseline: 0	GED prepares the Management Training Plan, targeting at least 800 managers	200 managers targeted in the Management Training Plan are trained	Additional 200 managers targeted in the Management Training Plan are trained	Additional 200 managers targeted in the Management Training Plan are trained	Additional 200 managers targeted in the Management Training Plan are trained
DLI 6 Provincial TVET management and monitoring system established	Target is to develop an integrated management information system platform Baseline: Ad hoc arrangements at provincial level, with Guizhou TVET schools and colleges conducting their own monitoring	GPG establishes a PMO with adequate capacity to implement the GVEDP in an effective and timely manner  GPG prepares and approves the GVEDP management manual	GPG develops an integrated management information system platform	PMO conducts effective and timely monitoring and reporting using data from the platform	GED's Planning Division becomes responsible for the integrated management information system	

DLIs	Baseline and Targets	Prior Results (2015)	2016	2017	2018	2019
	Only informal program management arrangements are in place					

CBC = competency-based curriculum, DLI = disbursement-linked indicator, EM = ethnic minority, GED = Guizhou Education Department, GPG = Guizhou Provincial Government, GVEDP = Guizhou Vocational Education Development Program, PMO = program management office, TVET = technical and vocational education and training.

## DISBURSEMENT-LINKED INDICATOR DISBURSEMENT PRINCIPLES AND PROCEDURES

### A. Disbursement Principles

**Financing prior results.** The Guizhou Vocational Development Education Program (GVEDP) will finance prior results. The prior results that have been selected are those that are critical to the successful subsequent implementation of the GVEDP, and are accomplished latest by the effectiveness date of GVEDP. The total amount for such financing will not exceed 20% of the ADB financing (i.e., \$30 million). The time frame for such financing should be no earlier than 12 months before the signing of the legal agreements.

**Advance financing.** The GVEDP will also provide advance financing for Year 1 DLIs in the amount of \$15 million.

**Partial disbursements are allowed.** Partial disbursements are allowed for DLIs 1, 3, 5, and the formulas for partial disbursement for those DLIs are detailed in the verification protocols (see Table A3.2 below). Once the remaining targets are met for any partially met DLI, the balance of disbursement allocation for the DLI can be disbursed.

### B. Disbursement Procedures

GPFD may submit a withdrawal application upon achievement of any DLIs, along with evidence verifying achievement of the DLIs. Disbursements are allowed for early or late achievement of DLIs. Verification mechanisms and protocols have been established using public and independent sources and are clarified in the verification protocols.

GED's PMO will collect all reports and information necessary to verify accomplishment of the DLIs and prepare a draft DLI achievement report. Achievement reports will refer to the month and year of the DLI achievement indicated in the DLI Table A3.3 below. All such reports will be appropriately authorized by a designated signatory, acting for and on behalf of GED and forwarded to GPFD who will make the withdrawal application accompanied by the evidence of DLI achievement. Where ADB identifies issues with the DLI achievement, it will relay its concerns to the GED's PMO and GPFD within one month of its receipt of the withdrawal application for further verification.

**Table A3.2: Verification Protocols**

DLIs	Definition and Description of Achievement and Verification Timeframe	Information Source and Frequency	Verification Agency and Procedure
<b>Outcome: An Inclusive and Responsive TVET System Developed</b>			
<p>DLI 1 Demonstration TVET Institutions continue to produce skilled graduates relevant to Guizhou's economic growth</p>	<p>Definition The Demonstration TVET Institutions are the demonstration secondary technical schools and tertiary TVET colleges,<sup>a</sup> which are directly administered by GPG.</p> <p>Graduates are (i) secondary schools graduates holding medium level skills and qualifications; and (ii) tertiary college graduates holding higher level skills and qualifications.</p> <p>Partial disbursement is allowed as long as the achievement level is at least 50% and in a such case the level of the partial disbursement will be proportionate to the achievement (e.g., achieving 75% of target will qualify for disbursement of 75% of the total annual amount earmarked for disbursement for this DLI in Table A3.3 below).</p>	<p>This DLI will be assessed by GED annually in July once the annual examination results are available.</p> <p>Demonstration TVET Institutions will maintain records of the numbers of graduates, disaggregated by sex and EM.</p> <p>Each Demonstration TVET Institutions will provide these numbers to GED for collation and assessment of DLI achievement.</p>	<p>Each Demonstration TVET Institution will provide the relevant data, containing the number of graduates, disaggregated by sex and EM, duly verified by its authorized signatory to GED by August each year.</p> <p>GED may undertake an audit at three demonstration secondary technical schools and/or tertiary TVET colleges selected randomly or where a particular school or college return causes suspicion (e.g., increase much higher than expected).</p> <p>GED will submit a disbursement claim to GPF, accompanied by verified collated data and random audit reports, if any.</p>
<b>Output 1: Quality of Teaching in TVET Institutions Strengthened</b>			
<p>DLI 2 Better facilities for quality practical training in Demonstration TVET Institutions</p>	<p>Definition A practical training base will include infrastructure, training facilities and equipment, a simulated industry environment, and qualified instructors and will be used for students' practical training, internships, research and development, and skills competitions, etc.</p> <p>Only practical training bases contained in the Training Base Construction/Upgradation Plans (prioritization list of training bases to be developed with information on purpose/capacity) to be prepared by GED and approved by ADB will qualify for disbursement. Construction of training bases will only commence after securing requisite</p>	<p>Approved Training Base Construction/Upgradation Plans.</p> <p>Certified completion reports, evidencing completion of practical training bases, by the authorized signatories of the Demonstration TVET Institutions.</p>	<p>The adequacy of the Training Base Construction/Upgradation Plans and designs will be subject to independent review by an expert appointed by ADB, in consultation with GED.</p> <p>Completion reports, evidencing completion of practical training bases, certified by the authorized signatories of Demonstration TVET Institutions will be forwarded to GED for processing the disbursement via GPF.</p>

<sup>a</sup> Five secondary TVET schools: Guizhou School of Economics & Business; Guizhou Province Commercial School; Guizhou Province Water Resource and Hydro Power School; Guizhou Provincial Machine and Industry School; and Guizhou Province Tourism School; and three tertiary TVET colleges: Guizhou Province Transportation School; Guizhou Province Light Industry College (in Huaxi); and Guizhou Agriculture & Livestock College.

DLIs	Definition and Description of Achievement and Verification Timeframe	Information Source and Frequency	Verification Agency and Procedure
	<p>construction permits.</p> <p>There will be no partial disbursement against this DLI.</p>		<p>GED will carry out periodic inspections of practical training bases to ensure that they continue to be fit for the purpose, and remain in use.</p> <p>ADB review missions will undertake random inspections of the completed practical training bases to confirm that they continue to be fit for the purpose, and remain in use.</p>
<p>DLI 3</p> <p>Teachers trained in pedagogy and subject knowledge across Guizhou TVET Schools and Colleges</p>	<p>Definition</p> <p>Guizhou TVET Schools and Colleges are all TVET schools and colleges across the province.</p> <p>Training of teachers will provide upgraded skills including subject-specific competency-based curriculum development, delivery and assessment, and for use of ICT-based and student-centered teaching strategies (pedagogy). Only teachers' training included in the Provincial Teachers' Training Plan (the scope will cover all Guizhou TVET Schools and Colleges with specific annual targets covering 8,000 teachers over the course of GVEDP), to be prepared by GED and agreed with ADB before the end of 2015, will qualify for disbursement. Partial disbursement is allowed as long as the achievement level is at least 70% and in such cases the level of the partial disbursement will be proportionate to the achievement.</p> <p>Gender and ethnic minority targets will be ensured, and the final disbursement for 2019 will measure and verify the aggregate achievement of these targets before disbursement is made.</p>	<p>Provincial Teachers' Training Plan.</p> <p>GED reports based on their records.</p>	<p>The adequacy of the Provincial Teachers' Training Plan will be subject to independent review by an expert appointed by ADB, in consultation with GED.</p> <p>GED will confirm by documentary evidence certified by its authorized signatory that the requisite training has been conducted and pass copies of such evidence to GED who will verify that the training qualifies for disbursement under the Provincial Teachers' Training Plan.</p> <p>GED will process the disbursement via GPFID.</p>
<b>Output 2: Responsiveness of TVET Institutions Improved</b>			
<p>DLI 4</p> <p>Industry-responsive CBC with associated learning materials and teachers' guides developed and implemented by Demonstration TVET Institutions for selected majors</p>	<p>Definition</p> <p>This activity involves the preparation, review, and approval of new/updated CBC by Demonstration TVET Institutions with associated learning materials and teachers' guides to allow the teaching of a major that is customized to the needs of key industries. The CBC development is a priority</p>	<p>Demonstration TVET Institutions CBC development plans.</p>	<p>The adequacy of the CBC development plans will be subject to independent review by an expert appointed by ADB, in consultation with GED.</p> <p>The Curriculum Development Guidance</p>

DLIs	Definition and Description of Achievement and Verification Timeframe	Information Source and Frequency	Verification Agency and Procedure
	<p>activity, supported by MOE which the Demonstration TVET Institutions will implement.</p> <p>Each of the 8 Demonstration TVET Institutions will complete one comprehensive set of learning materials and teachers' guides for the CBC for 2 majors.</p> <p>Selection criteria for key majors are based on the priorities of each Demonstration TVET Institutions.</p>	<p>Progress reports prepared by Demonstration TVET Institutions.<sup>b</sup></p>	<p>Committee of each Demonstration TVET Institutions will endorse the Curriculum certified by the authorized signatory of each GVEDP school and college will then be forwarded to the GED who will countersign that the major concerned is in the agreed plan and hence qualifies for disbursement, and then pass to the GED for processing the disbursement via GPF.</p> <p>Note: A Curriculum Development Guidance Committee primarily consists of industry experts thus providing an external stakeholder verification that the CBC meets industry needs.</p>
<b>Output 3: TVET Management Capacity Strengthened</b>			
<p>DLI 5 Managers trained in Demonstration TVET Institutions</p>	<p>Definition: Managers include principals, deputy principals, faculty heads, and deputy faculty heads. Training will target school management, leadership, course selection.</p> <p>Management Training Plan based on requirements and mutually agreed by ADB.</p> <p>Partial disbursement is allowed on the same basis as DLI No. 3 (teacher training).</p> <p>Gender and ethnic minority targets will be ensured, and the final disbursement for 2019 will measure and verify the aggregate achievement of these targets before disbursement is made.</p>	<p>GED reports based on their records.</p>	<p>Same procedure as for DLI No 3 (teacher training) will apply.</p>
<p>DLI 6 Provincial TVET management and monitoring system established</p>	<p>Definition: A PMO consisting of key staff (management, monitoring officers [social, safeguards, technical], and program support) established by GPG. The PMO will play an overall coordination role for GVEDP to ensure program implementation, monitoring, and reporting.</p>	<p>Government notification of PMO establishment and that program management arrangements are in place.</p>	<p>Prior results achievement to be verified by evidence of government decision and manual issuance.</p> <p>PMO in conjunction with GED to establish a working party to oversee the</p>

<sup>b</sup> These progress reports can be the same as those submitted to or shared with Ministry of Education.

DLIs	Definition and Description of Achievement and Verification Timeframe	Information Source and Frequency	Verification Agency and Procedure
	<p>The GVEDP Program Management Manual is a comprehensive set of guidelines for the implementation of the GVEDP that includes financial management, reporting, and monitoring mechanisms for the GED.</p> <p>An integrated management information system platform will include the enrolment and other related data from the Demonstration TVET Institutions to enable integrated and comprehensive program monitoring, analysis, and reporting. This will be based in the PMO initially and then transferred to the Planning Division of the GED to cover monitoring for all provincial TVET institutions.</p>	Six monthly GVEDP progress reports.	<p>design and implementation of the integrated MIS. This working group will then be responsible for overseeing system design, testing, and certification that the system is fit for intended purpose. The certification will be confirmed by CDTA consultants and trigger the disbursement of the second (2017) DLI target.</p> <p>The 2018 target will be evidenced by (i) reporting from the MIS being used for comprehensive results framework reporting as certified by the PMO; and (ii) GED certifying the Planning Division of GED has taken responsibility for the system and its ongoing maintenance.</p>

CBC = competency-based curriculum, DLI = disbursement-linked indicator, EM = ethnic minority, GED = Guizhou Education Department, GPG = Guizhou Provincial Government, GVEDP = Guizhou Vocational Education Development Program, MIS = management information system, PMO = program management office, TVET = technical and vocational education and training.

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

<b>Disbursement-Linked Indicators</b>	<b>Total ADB Financing Allocation</b>	<b>Share of ADB Financing (%)</b>	<b>Payment for Prior Results</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Outcome</b>							
DLI No 1: Number of GVEDP Graduates	15.00	10.00	-		4.50	4.50	6.00
<b>Outputs</b>							
DLI No 2: Number of Training Bases Constructed	30.00	20.00	7.50	7.50	7.50	7.50	
DLI No 3: Number of Teachers Trained	30.00	20.00	4.50	9.00	9.00	5.50	2.00
DLI No 4: CBC and Supporting Materials Developed	22.50	15.00	7.50	4.50	4.50	6.00	
DLI No 5: Number of TVET School Managers Trained	22.50	15.00	3.00	7.50	6.00	4.00	2.00
DLI No 6: TVET Management and Monitoring Capacity	30.00	20.00	7.50	7.50	7.50	7.50	
<b>Totals</b>	<b>150.00</b>	<b>100.00</b>	<b>30.00</b>	<b>36.00</b>	<b>39.00</b>	<b>35.00</b>	<b>10.00</b>

CBC = competency-based curriculum, DLI = disbursement-linked indicator, GVEDP = Guizhou Vocational Education Development Program, TVET = technical and vocational education and training.