



Technical Assistance Report

Project Number: 50357-001
Knowledge and Support Technical Assistance (KSTA)
May 2018

People's Republic of China: Accelerating the Reform of Application-Oriented Undergraduate Programs at Local Universities in Yunnan Province

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 8 May 2018)

Currency unit	–	yuan (CNY)
CNY1.00	=	\$0.157
\$1.00	=	CNY6.367

ABBREVIATIONS

ADB	–	Asian Development Bank
HEI	–	higher education institution
PDE	–	Provincial Department of Education
PRC	–	People's Republic of China
TA	–	technical assistance

NOTE

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

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KNOWLEDGE AND SUPPORT TECHNICAL ASSISTANCE AT A GLANCE

1. Basic Data		Project Number: 50357-001
Project Name	Accelerating the Reform of Application-Oriented Undergraduate Programs at Local Universities in Yunnan Province	Department/Division EARD/EASS
Nature of Activity	Capacity Development, Policy Advice, Research and Development	Executing Agency Yunnan Provincial Department of Education
Modality	Regular	
Country	China, People's Republic of	
2. Sector	Subsector(s)	ADB Financing (\$ million)
✓ Education	Tertiary	0.40
	Total	0.40
3. Strategic Agenda	Subcomponents	Climate Change Information
Inclusive economic growth (IEG) Regional integration (RCI)	Pillar 1: Economic opportunities, including jobs, created and expanded Pillar 2: Trade and investment	Climate Change impact on the Project Low
4. Drivers of Change	Components	Gender Equity and Mainstreaming
Governance and capacity development (GCD) Knowledge solutions (KNS) Partnerships (PAR) Private sector development (PSD)	Client relations, network, and partnership development to partnership driver of change Organizational development Knowledge sharing activities Civil society organizations Implementation Private Sector Conducive policy and institutional environment	No gender elements (NGE) ✓
5. Poverty and SDG Targeting		Location Impact
Geographic Targeting Household Targeting SDG Targeting SDG Goals	No No Yes SDG4, SDG8	Urban High
6. Risk Categorization	Low	
7. Safeguard Categorization	Safeguard Policy Statement does not apply	
8. Financing		
Modality and Sources	Amount (\$ million)	
ADB	0.40	
Knowledge and Support technical assistance: Technical Assistance Special Fund	0.40	
Cofinancing	0.00	
None	0.00	
Counterpart	0.00	
None	0.00	
Total	0.40	

I. INTRODUCTION

1. The knowledge and support technical assistance (TA) will support the development of policy frameworks for accelerating the reform of application-oriented undergraduate programs at local universities in Yunnan Province through research, capacity development, and policy advice to promote socioeconomic development and regional cooperation with Southeast Asian countries.

2. The Government of the People's Republic of China (PRC) has requested the TA from the Asian Development Bank (ADB) as part of its efforts to rationalize the higher education system in Yunnan Province to fill critical skills gaps in local and regional labor markets. Following a mission in March 2018, ADB and the government reached an understanding on the TA objectives, scope, implementation arrangements, costs, and terms of reference for consultants.¹ The TA is included in ADB's country operations business plan for the PRC, 2018–2020.²

II. ISSUES

3. The PRC's higher education system—the largest in the world in terms of number of higher education institutions (HEIs) and students—has been growing rapidly, contributing to remarkable economic growth.³ Yet as the economy has continued to undergo fundamental transformation and its growth has slowed, structural issues with the PRC's higher education system have become more prominent. These include homogenization of colleges and universities, the difficulty graduates face in finding a job, and insufficient capacity of HEIs for innovation and entrepreneurship. Against this background, the Ministry of Education issued guidelines for provincial governments to rationalize the higher education system by establishing a system for classifying HEIs, and to transform some local colleges and universities to offer application-oriented undergraduate programs, which integrate discipline-oriented education and professionally oriented practical training through university–enterprise cooperation and meet the needs of local socioeconomic development.⁴ At the same time, research universities were guided to enhance global competitiveness and state-of-the-art disciplines.⁵

4. Bordering the Lao People's Democratic Republic, Myanmar, and Viet Nam, Yunnan Province forms part of the PRC's poor and underdeveloped western region. Its higher education system, comprising 79 HEIs (77 colleges and universities, and 2 adult education colleges), has been unbalanced in its capacity to meet the needs of local socioeconomic development, and graduates face difficulties in finding a job. When the Yunnan Provincial Department of Education (PDE) initiated the reform of application-oriented undergraduate programs in 2008, HEIs in Yunnan Province were undifferentiated from each other in programs they offered, particularly due to the upgrading of many 3-year colleges to 4-year colleges and universities (local universities)

¹ The TA first appeared in the business opportunities section of ADB's website on 17 April 2018.

² ADB. 2018. *Country Operations Business Plan: People's Republic of China, 2018–2020*. Manila. The TA title has been adjusted to better reflect its objective.

³ According to the Organisation for Economic Co-operation and Development, the PRC added almost one HEI per week in 2010–2013 (51 in 2010, 33 in 2011, and 49 in 2013). <http://www.oecd.org/education/skills-beyond-school/andreasschleicher-highereducationstakeholderforum2016-opening.htm>.

⁴ The completion of a 4-year application-oriented undergraduate program would lead to a bachelor's degree. An application-oriented undergraduate program differs from a 3-year technical and vocational education and training program, graduates from which would receive a diploma. Ministry of Education, National Development and Reform Commission, and Ministry of Finance. 2015. *Guidelines for Transforming Some Local Colleges and Universities to Offer Application-Oriented Programs* (no. 7). Beijing.

⁵ State Council. 2015. *Notice to Coordinate the Development of World-Class Universities and State-of-the-Art Disciplines* (no. 64). Beijing.

after 2000. Since then, Yunnan PDE has pursued a series of reforms to align the higher education system with skills needs of local and regional labor markets. For example, in 2014, ahead of the Ministry of Education's guidelines, Yunnan PDE started to pilot the reform of application-oriented undergraduate programs at nine local universities.⁶ In 2016, it introduced an HEI classification system to comprehensively reform the higher education system,⁷ while it has started to develop world-class universities in 2018.⁸ Moreover, Yunnan Province strives to promote international cooperation in higher education, with an emphasis on cooperation with Southeast Asian countries under the Belt and Road Initiative.

5. All local universities are guided to implement the reform of application-oriented undergraduate programs in Yunnan Province. Despite their achievements, the pilot reforms have encountered challenges and issues, including

- (i) difficulties with fully adapting professionally oriented majors and clusters (groups of majors) to the needs of local industries, due in part to time lag between the pace of industry transformation and upgrading and that of curriculum, teaching force, and training materials and facility development and upgrading, and to insufficient university–enterprise cooperation;
- (ii) inadequate university entrance exam system based on discipline-oriented majors and graduation exam system based on thesis, as opposed to the emphasis on professionally oriented practical training in application-oriented undergraduate programs;
- (iii) underdeveloped capacity for training human resources to promote cooperation with Southeast Asian countries and implement the Belt and Road Initiative;
- (iv) limited public funds to develop practical training, innovation, and entrepreneurship facilities;
- (v) constraints on the autonomy of local universities, particularly that of public universities, to seek funding other than from the government; and
- (vi) unclear legal rights and obligations of the parties involved in university–enterprise cooperation.

6. These challenges and issues are compounded by a lack of policy frameworks at the national and provincial levels for different types of universities (public, private, independent schools, and institutes subordinate to universities) that are coordinated with other policy areas to accelerate the reform of application-oriented undergraduate programs at local universities.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

7. The TA is aligned with the following impact: higher education system in Yunnan Province in support of socioeconomic development and regional cooperation rationalized.⁹ The TA will

⁶ Yunnan PDE. 2014. *Opinions on Transforming Some Local Colleges and Universities to Offer Application-Oriented Undergraduate Programs in Yunnan Province* (no. 124). Kunming.

⁷ Yunnan Provincial Government. 2016. *Opinions to Strengthen Classification-Based Higher Education Institution Development and Management* (no. 97). Kunming.

⁸ Yunnan Provincial Government. 2018. *Notice to Coordinate the Development of World-Class Universities and State-of-the-Art Disciplines in Yunnan Province* (no. 8). Kunming.

⁹ Yunnan Provincial Government. 2017. *Thirteenth Five-Year Plan of Yunnan Provincial Education Development*. Kunming.

have the following outcome: reform of application-oriented undergraduate programs at local universities widely implemented.¹⁰

B. Outputs, Methods, and Activities

8. Output 1: Status of the reform of application-oriented undergraduate programs at local universities assessed. The TA will support the compilation of data and information¹¹ on 31 local universities in Yunnan Province into a report that examines the original and current status of the universities and their reforms of application-oriented undergraduate programs.¹² Workshops will be organized to discuss with local university administrators; professional, industry, and government experts; and other relevant stakeholders the objective, methodology, and tools of data and information collection; and achievements and challenges in the reform of application-oriented undergraduate programs. The report will be presented for discussion at a review workshop and distribution to local universities.

9. Output 2: Good practices and lessons on the reform of application-oriented undergraduate programs documented and disseminated. The TA will support the development of case studies and identification of good practices and lessons on the following five key elements of the reform of application-oriented undergraduate programs at local universities: (i) development of majors and clusters to meet and anticipate the needs of local industries in the process of transformation and upgrading; (ii) integration of discipline-oriented education and professionally oriented practical training through university–enterprise cooperation; (iii) establishment, management, and operation of research and development centers, practical training centers, and technology and innovation support centers; (iv) application-oriented undergraduate programs to promote cooperation with Southeast Asian countries; and (v) governance mechanisms for engaging industries and enterprises in application-oriented undergraduate programs. Based on the report on the status of the reform at local universities (output 1) and in consultation with local universities; professional, industry, and government experts; and other relevant stakeholders, eight case study universities, including three advanced universities in the eastern region of the PRC, will be selected to develop case studies of reforms of application-oriented undergraduate programs. Small workshops will be organized at the eight selected universities to develop case studies. In addition, tracer studies of graduates from application-oriented undergraduate programs at the case study universities will be conducted. The eight case studies will be compiled into a case study report and will be further analyzed to identify good practices and lessons on the five key elements of the reform of application-oriented undergraduate programs to be documented in the form of five thematic reports. The case study report and thematic reports will be presented for discussion at review workshops and distribution to local universities.

10. Output 3: Policy recommendations on accelerating the reform of application-oriented undergraduate programs at local universities in line with local industry transformation and upgrading plans developed. The TA will support the review of (i) legal and

¹⁰ The design and monitoring framework is in Appendix 1.

¹¹ The data and information may include the year of establishment, governance structure, list of faculties, faculty structure, undergraduate majors, number of students, graduate employment status, number and qualifications of teachers, practical training facilities, research and development activities, innovation and entrepreneurship facilities, assets, finances, strategic plans, and reform activities.

¹² A total of 31 local universities, including the 9 local universities that started pilot reforms in 2014, are listed in the 2017 annual higher education report of Yunnan PDE. They have different ownership structures (public, private, independent schools, and institutes subordinate to universities) and reporting requirements to provincial or municipal governments. Yunnan PDE does not have a comprehensive set of data and information. Yunnan PDE. 2018. *Annual Report on Higher Education Transformation and Development*. Kunming.

policy frameworks at the national and provincial levels for different types of universities (public, private, independent schools, and institutes subordinate to universities) to undertake the reform of application-oriented undergraduate programs; and (ii) international experiences with similar reforms. The TA will also support the review of the status of Yunnan Province's pillar industries and the determination of their growth trajectories, which will indicate the needs for highly skilled human resources. In addition, international study visits to foreign universities that are advanced in application-oriented undergraduate programs will be organized. Based on the reviews and findings from the international study visits as well as good practices and lessons (output 2), policy recommendations on accelerating the reform of application-oriented undergraduate programs at different types of local universities will be developed into a policy note. The policy note will be presented for discussion at a review workshop and submission to Yunnan Provincial Government.

11. The key risk to the achievement of the outcome is that contradictory policies adopted in other policy areas (e.g., tax policy, intellectual property policy) may slow the reform of application-oriented undergraduate programs at local universities. The major risk to the development of the three outputs, especially output 3, is that the cooperation of local industries and enterprises may not be maintained.

C. Cost and Financing

12. The TA is estimated to cost \$450,000, of which \$400,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-other sources). The key expenditure items are listed in Appendix 2. The government will provide counterpart support in the form of counterpart staff, meeting facilities, data, information, relevant documents, and other in-kind contributions.

D. Implementation Arrangements

13. ADB will administer the TA. ADB will select, supervise, and evaluate consultants during implementation of the TA. Yunnan PDE will be the executing and implementing agency and will be responsible for providing guidance and support to the consultants engaged under the TA and involving all relevant stakeholders during TA implementation, including local universities; and professional, industry, and government experts. A project steering committee, chaired by the director of the foreign capital utilization division of Yunnan PDE, and comprising directors of higher education and other relevant divisions of Yunnan PDE, and representatives from Yunnan Provincial Department of Finance, universities, and professional and industry associations, will be established to provide overall implementation guidance and support. Relevant local universities will appoint focal persons to communicate and coordinate with the consultants. Case study universities in Yunnan Province will establish working groups to develop case studies together with the consultants.

14. The implementation arrangements are summarized in the table.

Implementation Arrangements

Aspects	Arrangements		
Indicative implementation period	June 2018–June 2020		
Executing and implementing agency	Yunnan Provincial Department of Education		
Consultants	To be selected and engaged by ADB		
	Quality- and cost-based selection	19 person-months	\$385,850
Disbursement	The TA resources will be disbursed following ADB's <i>Technical Assistance Disbursement Handbook</i> (2010, as amended from time to time).		

ADB = Asian Development Bank, TA = technical assistance.

Source: Asian Development Bank.

15. **Consulting services.** ADB will engage the consultants following the ADB Procurement Policy (2017, as amended from time to time) and its associated project administration instructions and/or staff instructions.¹³ The consulting firm (6 person-months of international, and 13 person-months of national) will design and conduct policy-oriented studies on the reform of application-oriented undergraduate programs at local universities. It will be selected using the quality- and cost-based selection method, with a quality–cost ratio of 90:10 and simplified technical proposals. Output-based, lump sum contract with a provision of fixed out-of-pocket expenditures will be considered for the assignment.

16. ADB will monitor and evaluate the TA based on the implementation of activities and satisfactory delivery of outputs following the agreed timeline and budget. The main mechanism to monitor and assess the TA is reports submitted by the consultants and review missions jointly conducted by ADB and Yunnan PDE. The TA outputs may be shared with and disseminated to other provinces, if relevant.

IV. THE PRESIDENT'S DECISION

17. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$400,000 on a grant basis to the Government of the People's Republic of China for Accelerating the Reform of Application-Oriented Undergraduate Programs at Local Universities in Yunnan Province, and hereby reports this action to the Board.

¹³ Terms of Reference for Consultants (accessible from the list of linked documents in Appendix 3).

DESIGN AND MONITORING FRAMEWORK

Impact the TA is Aligned with			
Higher education system in Yunnan Province in support of socioeconomic development and regional cooperation rationalized (Thirteenth Five-Year Plan of Yunnan Provincial Education Development) ^a			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
Outcome Reform of application-oriented undergraduate programs at local universities widely implemented	By end of 2021 a. A policy for accelerating the reform of undergraduate programs at different types of local universities adopted (2018 baseline: not developed) b. An additional 30 local universities adopt reform of application-oriented undergraduate programs (2018 baseline: reform implemented at nine pilot local universities)	a. Policy documents issued by Yunnan Provincial Government b. 2020 annual report of Yunnan Provincial Department of Education	Contradictory policies adopted in other policy areas (e.g., tax policy, intellectual property policy) slow the reform of application-oriented undergraduate programs at local universities.
Outputs 1. Status of the reform of application-oriented undergraduate programs at local universities assessed	By mid-2019 1a. A report that examines the original and current status of universities and their reforms of application-oriented undergraduate programs prepared (2018 baseline: not prepared)	1a. TA consultants' reports	
2. Good practices and lessons on the reform of application-oriented undergraduate programs documented and disseminated	By end of 2019 2a. A report that compiles eight case studies of reforms of application-oriented undergraduate programs prepared (2018 baseline: not prepared) 2b. Five thematic reports that document good practices and lessons on the five key elements of reforms of application-oriented undergraduate programs distributed to local universities (2018 baseline: not prepared)	2a. TA consultants' reports 2b. TA consultants' reports, workshop materials	
3. Policy recommendations on accelerating the reform of application-oriented undergraduate programs at local universities in line with local industry transformation and upgrading plans developed	3a. Reviews of legal and policy frameworks at the national and provincial levels for the reform of application-oriented undergraduate programs and international experience with similar reforms completed by mid-2019 (2018 baseline: not conducted) 3b. Reviews of the status of Yunnan Province's pillar industries and their growth trajectories with information on needs for highly	3a–c. TA consultants' reports, workshop materials	The cooperation of local industries and enterprises is not maintained.

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
	<p>skilled human resources completed by mid-2019 (2018 baseline: not conducted)</p> <p>3c. A policy note that includes policy recommendations on accelerating the reform of application-oriented undergraduate programs at different types of local universities prepared by mid-2020 (2018 baseline: not prepared)</p>		
<p>Key Activities with Milestones</p> <p>1. Status of the reform of application-oriented undergraduate programs at local universities assessed</p> <p>1.1 Organize workshops to discuss the objective, methodology, and tools of data and information collection; and achievements and challenges in the reform of application-oriented undergraduate programs with relevant stakeholders (Q4 2018–Q1 2019).</p> <p>1.2 Collect data and information on local universities and examine the original and current status of the universities and their reforms of application-oriented undergraduate programs (Q4 2018–Q1 2019).</p> <p>1.3 Conduct a review workshop to present and discuss the report for distribution to local universities (Q1 2019).</p> <p>2. Good practices and lessons on the reform of application-oriented undergraduate programs documented and disseminated</p> <p>2.1 Select eight cases to develop case studies of reforms of application-oriented undergraduate programs (Q1 2019).</p> <p>2.2 Organize small workshops at case study universities to develop case studies (Q1–Q2 2019).</p> <p>2.3 Conduct tracer studies of graduates from application-oriented undergraduate programs at case study universities (Q2–Q3 2019).</p> <p>2.4 Further analyze the case studies to identify and document good practices and lessons on the five key elements of the reform of application-oriented undergraduate programs (Q2–Q3 2019).</p> <p>2.5 Conduct review workshops to present and discuss the case study report and thematic reports for dissemination to local universities (Q3–Q4 2019).</p> <p>3. Policy recommendations on accelerating the reform of application-oriented undergraduate programs at local universities in line with local industry transformation and upgrading plans developed</p> <p>3.1 Review legal and policy frameworks for different types of universities to undertake the reform of application-oriented undergraduate programs, and review international experiences with similar reforms (Q3 2018–Q1 2019).</p> <p>3.2 Review the status of Yunnan Province’s pillar industries and determine their growth trajectories (Q3 2018–Q1 2019).</p> <p>3.3 Organize international study visits to foreign universities that are advanced in application-oriented undergraduate programs (Q3 2019–Q1 2020).</p> <p>3.4 Conduct a review workshop to present and discuss the policy note for submission to Yunnan Provincial Government (Q2 2020).</p>			
<p>Inputs</p> <p>ADB: \$400,000</p> <p>Note: The government will provide counterpart support in the form of counterpart staff, meeting facilities, data, information, relevant documents, and other in-kind contributions.</p>			

Assumptions for Partner Financing

Not Applicable

ADB = Asian Development Bank, Q = quarter, TA = technical assistance.

^a Yunnan Provincial Government. 2017. *Thirteenth Five-Year Plan of Yunnan Provincial Education Development*. Kunming.

Source: Asian Development Bank

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Amount
Asian Development Bank^a	
A. Consultants	
1. Remuneration and per diem	
a. International consultants	118.5
b. National consultants	100.6
2. Out-of-pocket expenditures	
a. International and local travel	24.8
b. Surveys	10.0
c. Training, seminars, and conferences ^b	80.0
d. International study visits ^c	37.0
e. Reports and communications	20.0
f. Miscellaneous administration and support costs ^b	2.0
B. Contingencies	7.1
Total	400.0

Note: The technical assistance (TA) is estimated to cost \$450,000, of which contributions from the Asian Development Bank are presented in the table above. The government will provide counterpart support in the form of counterpart staff, meeting facilities, data, information, relevant documents, and other in-kind contributions. The value of government contribution is estimated to account for 11% of the total TA cost.

^a Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-other sources).

^b Includes translation and interpretation costs.

^c International study visits will be in ADB member countries.

Source: Asian Development Bank estimates.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/LinkedDocs/?id=50357-001-TARreport>

1. Terms of Reference for Consultants