



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

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Project Number: 46047  
November 2013

Proposed Loan  
People's Republic of China: Guangxi Nanning  
Vocational Education Development Project

Asian Development Bank

## CURRENCY EQUIVALENTS

(as of 3 November 2013)

Currency unit – yuan (CNY)

CNY1.00 = \$0.16394

\$1.00 = CNY6.009

## ABBREVIATIONS

ADB	–	Asian Development Bank
CBC	–	competency-based curricula
IEE	–	initial environmental examination
GZAR	–	Guangxi Zhuang Autonomous Region
NHS	–	Nanning Health School
NMG	–	Nanning Municipal Government
NVTS	–	Nanning No. 4 Vocational and Technical School
PMO	–	project management office
PRC	–	People's Republic of China
TVET	–	technical and vocational education and training
XIDC	–	Xiangsihu Investment and Development Company

## NOTE

In this report, "\$" refers to US dollars.

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## PROJECT AT A GLANCE

<b>1. Project Name:</b> Guangxi Nanning Vocational Education Development Project		<b>2. Project Number:</b> 46047-002	
<b>3. Country:</b> People's Republic of China		<b>4. Department/Division:</b> East Asia Department/Urban and Social Sectors Division	
<b>5. Sector Classification:</b>			
<b>Sectors</b>	<b>Primary</b>	<b>Subsectors</b>	
Education	√	Technical education and vocational skills training	
Health and social protection		Health programs	
		Social protection	
<b>6. Thematic Classification:</b>			
<b>Themes</b>	<b>Primary</b>	<b>Subthemes</b>	
Social development	√	Human development	
Capacity development		Institutional development	
<b>6a. Climate Change Impact</b> No Climate Change Indicator available.		<b>6b. Gender Mainstreaming</b>	
		Gender equity theme (GEN)	
		Effective gender mainstreaming (EGM)	√
		Some gender elements (SGE)	
		No gender elements (NGE)	
<b>7. Targeting Classification:</b>		<b>8. Location Impact:</b>	
<b>General Intervention</b>	<b>Targeted Intervention</b>		
	<b>Geographic dimensions of inclusive growth</b>	<b>Millennium development goals</b>	<b>Income poverty at household level</b>
√			
		Rural	High
		Urban	High
<b>9. Project Risk Categorization:</b> Complex			
<b>10. Safeguards Categorization:</b>			
Environment		B	
Involuntary resettlement		C	
Indigenous peoples		B	
<b>11. ADB Financing:</b>			
<b>Sovereign/Nonsovereign</b>	<b>Modality</b>	<b>Source</b>	<b>Amount (\$ Million)</b>
Sovereign	Project loan	Ordinary capital resources	50.0
Total			50.0
<b>12. Cofinancing:</b> No Cofinancing available.			
<b>13. Counterpart Financing:</b>			
<b>Source</b>	<b>Amount (\$ Million)</b>		
Government	52.69		
Total	52.69		
<b>14. Aid Effectiveness:</b>			
Parallel project implementation unit		No	
Program-based approach		No	

## I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed loan to the People's Republic of China (PRC) for the Guangxi Nanning Vocational Education Development Project.

2. The project seeks to improve the quality and relevance of technical and vocational education and training (TVET) for preschool education and health care in two demonstration secondary level TVET schools in Nanning Municipality, Guangxi Zhuang Autonomous Region (GZAR). Quality improvements to be generated by the project include upgrading campus facilities and equipment to support expanded enrollment, developing competency-based standards and curricula, improving teacher training, establishing training bases, and strengthening TVET management.<sup>1</sup>

## II. THE PROJECT

### A. Rationale

3. Rapid urbanization has contributed significantly to economic growth in the PRC and improved living conditions for millions of citizens throughout the country. This success has created new challenges for local governments to address growing disparities in access to and demand for the delivery of quality basic social services, such as education and health. In response, the PRC Government's Twelfth Five-Year Plan, 2011–2015 outlines measures to establish “a sound and sustainable basic public service system,” with a focus on improving public education and health services.<sup>2</sup> The plan is supported by recent reforms in the education and health sectors to provide universal kindergarten access and improve primary health care services in rural and urban areas.

4. Urbanization and the ambitious plans for economic transformation create both a challenge and an opportunity for the education sector, and especially for the TVET subsector. Strengthening TVET to create skilled workers in the manufacturing and service sectors is an important priority of the government. In 2010, the government identified TVET as the key target for educational expansion in its National Medium- and Long-term Education Reform and Development Plan, 2010–2020, which seeks to better align the education system with the goals of inclusive and sustainable growth. The areas of policy reform include expanding and increasing access and equity in TVET, modernizing curriculum and teaching methods, strengthening the role of employers, and TVET school management.

5. The National Medium- and Long-term Education Reform and Development Plan, 2010–2020 underlines the commitment of the government to supporting early childhood development through expansion of preschool education so that by 2020, 1-year preschool will be universalized.<sup>3</sup> Promoting early childhood development is an essential base on which to build future human resources and address root causes of intergenerational poverty and sources of inequality. The goals of the Twelfth Five Year Plan, 2011–2015 include establishing a basic medical and health system covering urban and rural residents and improving accessibility, quality, efficiency of services, and patient satisfaction by 2015. In 2010, there were 178 million people in the PRC over the age of 60 and by 2050 the number is expected to exceed 480

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<sup>1</sup> The Asian Development Bank (ADB) provided project preparatory technical assistance.

<sup>2</sup> National People's Congress. 2011. *Twelfth Five-Year Plan for National Economic and Social Development 2011–2015*. Beijing.

<sup>3</sup> Overall, preschool students in the PRC will increase from 26.58 million in 2009 to 40.00 million by 2020.

million. There is an urgent need to expand elderly care and health services with well-trained personnel for the emerging job market, which is projected to create more than 5 million new jobs in home, community, and institutional elderly care services.

6. Nanning is the capital city of GZAR, one of the 12 less-developed provinces and autonomous regions in the western part of the PRC and a gateway to the Pan-Beibu Gulf and the Association of Southeast Asian Nations region. The municipality has a total population of 7.07 million (53% ethnic minority), is mainly rural, and covers an area of 22,112 square kilometers. The development of Nanning as a regional hub has led to an annual growth rate of 15.5%. Industrialization and urbanization have created a rising demand for social services workers in rural and urban areas.

7. Currently, there is a severe shortage of qualified kindergarten teachers and schools and medical personnel. By 2020, GZAR will build, renovate, or expand 6,628 kindergarten schools and increase enrollment to 1.33 million, necessitating the employment of an additional 21,000 new teachers.<sup>4</sup> In 2011, only 600 preschool teachers graduated from TVET programs in GZAR. The Nanning Municipal Government (NMG) must also build a health system to respond to the increased demand and ensure service quality in rural and urban areas. In 2010, the national average was 7.6 health personnel per 1,000 urban residents, but GZAR has an average of only 3.6 health personnel per 1,000 residents. Nanning Municipality has an average of 5.35 health personnel per 1,000 urban residents and 0.76 personnel per 1,000 rural residents.<sup>5</sup>

8. TVET is rapidly expanding in GZAR in response to opportunities generated by local and regional development. New enrollments increased by more than 200% from 2005–2012 and are largely filled by rural and ethnic minority students. There is a need to expand TVET facilities and improve quality of TVET provision to ensure that it is market responsive and socially inclusive.<sup>6</sup> The new campus of the Nanning Health School (NHS) will allow the school to consolidate its campuses and be a part of a new “educational park” where different institutions can share resources. It will support the school’s goal of expanding into a college and offering several levels of education. The Nanning No. 4 Vocational and Technical School (NVTS) campus was built in the 1960s and has not had any major improvements for over 20 years. The improved facilities will support increased enrollment and the development of a kindergarten training base, which would be the first in GZAR.

9. The Government of the PRC has shown a strong commitment in the reform agenda to improving TVET quality and industry partnerships. But implementing the reforms effectively at the school level has proven to be a challenge. Teachers often lack industry work experience, are unable to effectively design curricula, and use outdated teaching and assessment methods. Students learn few soft skills, which are especially important in the service sectors, and have little opportunity for practical training, making them ill-equipped to enter the job market. Industry partnerships are evolving but are not systematic in helping to guide curriculum development. Many teachers have little knowledge about national and international good practices, and they lack mentoring partnerships for management and staff with leading institutions. To address these challenges for kindergarten teacher training at the NVTS and nurse training at the NHS, the project will complement the national TVET reform agenda by improving the quality of (i)

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<sup>4</sup> People’s Government of GZAR. 2011. *Action Plan for 3-year Preschool Education in Guangxi*. Nanning. In 2010, Guangxi had a total of 5,349 kindergartens serving 1.18 million students and employing 37,000 kindergarten teachers.

<sup>5</sup> Nanning has 23,518 village clinics, of which only 8.7% are public.

<sup>6</sup> The majority of students at both the NHS and NVTS are ethnic minorities, and many rural ethnic minority communities will benefit from improved service provision.

curriculum development and teacher training, (ii) human resource development, (iii) industry–school cooperation, and (iv) national and international partnerships with leading institutions. The project will also establish kindergarten and rural health training bases, and construct facilities and provide equipment for the NHS and NVTS.

10. **Strategic fit.** The project is the second ADB-financed TVET project in the PRC and will play a demonstration role for the development of social services TVET in the PRC and other countries. It supports ADB’s country partnership strategy for the PRC,<sup>7</sup> Strategy 2020,<sup>8</sup> ADB’s education policy, and education and health sector strategies. The project supports the PRC’s Twelfth Five-Year Plan, 2011–2015, which prioritizes developing high-quality human resources and public sector services, and accelerating educational reform, especially in TVET.

11. **Special features.** The project includes

- (i) **Development of elderly care curriculum for the nursing program.** This will help the NHS be more responsive to demographic shifts and emerging industry needs, and position students for employment in services that are expected to expand significantly. The project will create a bridging mechanism for students in the elderly care certificate program to upgrade their skills and facilitate transfers to the nursing program, creating new pathways for career advancement.
- (ii) **Development of pilot training bases in kindergarten teaching and rural health.** The project will establish training bases for practical training in kindergarten teaching and rural health services. The bases will provide inputs to competency-based curricula (CBC) development and improve TVET quality.
- (iii) **Greening campuses.** The project will contribute to the government’s objectives of developing an environmentally sustainable and energy-efficient society by designing, constructing, and maintaining campus buildings that reduce energy and water use, promoting sustainable practices, such as reducing, reusing, and recycling; encouraging selection of training equipment with low energy consumption; and strengthening environmental management systems.
- (iv) **Industry reference groups.** The groups will work with the schools in areas such as curriculum development to help ensure that TVET is more demand-led.

12. **Incorporation of lessons learned.** Lessons from ADB and World Bank TVET projects<sup>9</sup> were incorporated in the project design, including (i) involving industries in identifying priority occupational areas, and developing CBC and materials; (ii) creating pathways to further education by establishing training programs that align with entry requirements for advanced programs; (iii) building a learning culture to capture lessons for future policy and program development through training bases and tracer studies; and (iv) establishing a robust project monitoring and evaluation.

## B. Impact and Outcome

13. The impact of the proposed project will be improved delivery of social services in Nanning Municipality. The outcome will be increased TVET quality and training capacity in the NHS and NVTS by 2020.

<sup>7</sup> ADB. 2012. *Country Partnership Strategy: People’s Republic of China, 2011–2015*. Manila.

<sup>8</sup> ADB. 2008. *Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank, 2008–2020*. Manila.

<sup>9</sup> Development Coordination (accessible from the list of linked documents in Appendix 2).

### C. Outputs

14. **Output 1: TVET capacity strengthened in project schools.** The project will (i) improve teacher training and create a core teacher training system and in-service training programs; (ii) develop CBC, materials, and assessment methods to improve the quality of learning; (iii) strengthen human resources capacity to improve outreach and placement of students; (iv) support industry partnerships; (v) create national and international partnerships to support staff development; and (vi) develop an elderly care curriculum and bridging program at the NHS.

15. **Output 2: Pilot programs implemented in project schools.** This output will support design and implementation of (i) a kindergarten training base on the NVTS campus to pilot curriculum and teaching methods and conduct action research; and (ii) pilot rural training bases for the NHS rural doctor and nursing programs to provide exposure to the rural health care system.

16. **Output 3: Buildings, campus facilities, and equipment upgraded.** The project will construct building and auxiliary facilities for the new NHS<sup>10</sup> and existing NVTS campuses, together with the acquisition and upgrading of teaching and learning equipment. This will improve the enrollment capacity, relevance, and effectiveness of teaching and learning.

17. **Output 4: Project management support implemented.** The project will build capacity of the project management office and implementing agencies to improve monitoring and evaluation, and help the NMG disseminate project information and materials.

### D. Investment and Financing Plans

18. The project is estimated to cost \$102.69 million (Table 1).

**Table 1: Project Investment Plan**  
(\$ million)

Item	Amount <sup>a</sup>
<b>A. Base Cost<sup>b</sup></b>	
1. TVET capacity strengthened in project schools	1.45
2. Pilot programs implemented in project schools	0.43
3. Buildings, campus facilities, and equipment upgraded	85.44
4. Project management support implemented	1.51
<b>Subtotal (A)</b>	<b>88.83</b>
<b>B. Contingencies<sup>c</sup></b>	<b>11.94</b>
<b>C. Financing Charges During Implementation<sup>d</sup></b>	<b>1.92</b>
<b>Total (A+B+C)</b>	<b>102.69</b>

TVET = technical and vocational education and training.

Note: Numbers may not sum precisely due to rounding.

<sup>a</sup> Investment costs include taxes and duties amounting to \$2.62 million to be financed by the Government of the People's Republic of China, which will finance \$0.30 million, and the Asian Development Bank (ADB) loan, which

<sup>10</sup> The civil works for the NHS will take place on a new campus in Xiangsihu new district. The campus is being constructed in two phases: (i) with domestic financing, and (ii) with domestic financing and the ADB loan. In total, 13 buildings will be built, along with sports facilities and landscaping. The ADB loan will support construction of the library, administration building, lecture hall, laboratory and teaching center, a classroom building, and underground works. All other facilities will be under phase one, which began in August 2012. All buildings will comply with the most recent PRC standards and codes pertaining to building energy-efficiency and safety. The project will install solar water heaters, harvest rainwater, construct storm water retention ponds, use energy-efficient construction materials, and adhere to PRC green public procurement policies. ADB financing will cover 52% of the civil works; 100% of the pilot programs, TVET capacity building, and consulting activities; and 90% of the equipment.



will finance \$2.32 million. The following principles were followed in determining the amount of taxes and duties to be financed by ADB: (i) the amount is within reasonable country thresholds, (ii) the amount does not represent an excessive share of the project investment plan, (iii) taxes and duties apply only to ADB-financed project expenditures, and (iv) the financing of taxes and duties is relevant to the success of the project. The tax rate on civil works is 3.4% while for equipment the tax rate applied is 17%.

<sup>b</sup> In mid-2013 prices.

<sup>c</sup> Physical contingencies were computed at 11% of total civil works and equipment costs for NVTs and NHS to match the contingency provision used in the domestic feasibility study reports as contingencies are fully financed by the government. Price contingencies were computed at 2.3% for 2014, 1.9% for 2015, and 1.8% thereafter for foreign exchange costs, while local currency costs were computed at 3.5% for 2014 and 3.0% thereafter.

<sup>d</sup> Includes interest and commitment charges. Interest during construction for the ADB loan was computed at the US dollar 5-year fixed swap rate plus a spread of 0.4% and maturity premium of 0.1%. Commitment charge is 0.15% of undisbursed loan amount.

Source: Asian Development Bank estimates.

19. The government has requested a loan of \$50 million from ADB's ordinary capital resources to help finance the project. The loan will have a 25-year term, including a grace period of 5 years, an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility, a commitment charge of 0.15% per year,<sup>11</sup> and such other terms and conditions set forth in the draft loan and project agreements. The government will finance the remaining amount of \$52.69 million of project cost including contingencies.<sup>12</sup>

20. The financing plan is in Table 2 and is further detailed in the project administration manual (PAM).<sup>13</sup> The government and the executing agency have given an assurance that they will provide counterpart funding for the project in a timely manner, and will provide any additional counterpart funding needed to cover any shortfall of funds or cost overruns.

**Table 2: Financing Plan**

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank	50.00	48.7
Government	52.69	51.3
<b>Total</b>	<b>102.69</b>	<b>100.0</b>

Source: Asian Development Bank estimates.

21. The PRC is the borrower of the loan and will make the loan proceeds available to the NMG under PRC relending arrangements, upon terms and conditions satisfactory to ADB. The NMG will utilize the loan proceeds in accordance with the project agreement, bear the foreign exchange and interest rate variation risks associated with the loan, and assume responsibility for debt servicing and repayment. The NMG shall provide most of the loan proceeds to the Xiangsihu Investment and Development Company (XIDC) as the principal implementing agency. The indicative flow of funds and relending arrangements are in the PAM.

## **E. Implementation Arrangements**

22. The implementation arrangements are summarized in Table 3 and detailed in the PAM.

<sup>11</sup> The government has requested that repayment will follow the straight-line repayment option. Based on this, the average loan maturity is 15.25 years and the maturity premium payable to ADB is 0.10% per annum.

<sup>12</sup> The interest rate and other charges during construction will not be capitalized in the loan.

<sup>13</sup> Project Administration Manual (accessible from the list of linked documents in Appendix 2). The PAM has appendixes, which include (i) profiles of the two targeted TVET schools, (ii) strategies for TVET strengthening, (iii) detailed terms of reference and budgets for the consulting services to be financed under the loan, (iv) a draft training plan, and (v) details of the procurement capacity assessments made and the equipment to be financed under the loan.

**Table 3: Implementation Arrangements**

Aspects	Arrangements		
Implementation period	April 2014–March 2019		
Estimated completion Date	31 March 2019 (estimated loan closing date: 30 September 2019)		
Management			
(i) Oversight body	Nanning ADB TVET Project Leading Group Chair: Deputy Mayor Members: Representatives from the Nanning Development and Reform Commission, Nanning Finance Bureau, and Nanning Education Bureau; other departments will be seconded as needed.		
(ii) Executing agency	The NMG will be the executing agency and take overall responsibility for project implementation. The Project Leading Group will provide high-level direction and policy guidance, while the PMO in the Nanning Development and Reform Commission, working under the guidance of the leading group, will handle overall coordination and management of the project, including progress reports and procurement documentation (e.g., bidding documents, bid evaluation reports) for ADB's approval.		
(iii) Implementing agencies	The NHS, NVTS, and XIDC will be the implementing agencies and take overall responsibility for implementing different parts of the project. The PMO will supervise day-to-day activities and provide coordination support for the implementation of the project. The XIDC is a state-owned enterprise wholly owned by the NMG and specializing in urban infrastructure construction. A project implementation agreement will be concluded between the NMG and XIDC under which the XIDC procures and constructs the project facilities and then later makes these available to the NHS and NVTS to operate and maintain. The NMG will be the ultimate asset owner.		
Procurement	International competitive bidding	3 contracts	\$63.67 million
	National competitive bidding	10 contracts	\$14.93 million
	Shopping	4 contracts	\$0.32 million
	A procurement agent will be hired to assist the PMO and XIDC to undertake the project procurement, and the project implementation consultant will also lend support.		
Consulting services	Individual consultant recruitment	5 person-months	\$50,000
	Quality- and cost-based selection	125 person-months	\$1.86 million
	Other (TBD) <sup>a</sup>	TBD	\$0.952 million
Retroactive financing and/or advance contracting	Advanced contracting has been requested to engage two consulting service contracts and four civil works contracts. Retroactive financing for civil works and consulting services will finance up to \$6.50 million of eligible expenditure (13% of the ADB loan) incurred prior to loan effectiveness, but not earlier than 12 months before the loan agreement is signed. The ADB project team has verified the urgent nature of these works and services and that plans are in place to make an early start on these works.		
Disbursement	The loan proceeds will be disbursed in accordance with ADB's Loan Disbursement Handbook (2012, as amended from time to time) and detailed arrangements agreed upon between the government and ADB.		

ADB = Asian Development Bank, NHS = Nanning Health School, NMG = Nanning Municipal Government, NVTS = Nanning No. 4 Vocational and Technical School, PMO = project management office, TBD = to be determined, TVET = technology and vocational education and training, XIDC = Xiangsihu Investment and Development Company.

<sup>a</sup> The procurement methods and number of contracts will be determined during implementation.

Source: Asian Development Bank estimates.

23. The project includes funding for international and national consulting services to support the executing agency and implementing agencies to implement the project. The project design also includes for a start-up consultant to assist the project management office (PMO) with project readiness activities. The terms of reference for the consulting services are included in the PAM.

### III. DUE DILIGENCE

#### A. Technical

24. The project will construct 18 buildings on two campuses, with a total building area of 187,910 square meters. All buildings will be designed and constructed in accordance with PRC and GZAR design standards and codes. Campus design and management plans incorporate fire truck routing, emergency evacuation plans (including temporary shelter, evacuation routes, and exits), and campus traffic and parking plans promoting pedestrian and bicycle traffic. At the NVTs, building type and layout of the student dormitory were revised to better meet functional requirements, and the campus design was adjusted to provide more green space for recreation activities. At the NHS, a comprehensive campus security system will be implemented. Sustainable campus management features will be introduced on both campuses. Equipment specifications have been drawn up that is compatible with the improvements in TVET quality.

#### B. Economic and Financial

25. **Economic benefits.** Conventional economic viability analysis using an economic internal rate of return calculation was applied in determining the viability of the NHS (health) component. The monetized value of the benefits compared with the projected economic costs yielded an economic internal rate of return value of 17.6%. Over a 20-year period, NHS graduates, 95% of whom are assumed to find employment, are projected to generate total incremental income earnings of about CNY615 million. These students will be better trained and more competent in delivering health services and contributing to improving health outcomes in rural and urban areas. Analysis for the NVTs (early childhood education) component utilized a simple cost-benefit analysis, which estimated the net present value of the annual stream of economic benefits derived from the proposed investments and yielded satisfactory results as documented in the economic analysis.<sup>14</sup> Increasing investment in early child development is one of the most cost-effective strategies for breaking intergenerational poverty and improving productivity and social cohesion in the long run.<sup>15</sup> Other external benefits of both components of the project that will accrue are (i) improvements in TVET, which will filter to non-project TVET institutions; (ii) improved responsiveness of TVET to changing sector needs; and (iii) facilitation of public services reform and improvement. The project will directly raise TVET quality for about 5,850 TVET students annually, which includes increased capacity of 1,850 students due to improved and expanded facilities. Over a 25-year period, a total of 31,028 students will graduate and join the active work force.<sup>16</sup> This is expected to improve the delivery of kindergarten and health services in Nanning and GZAR.

26. **Financial sustainability.** A financial sustainability analysis was undertaken during project preparations based on fiscal impact. This analysis indicates the project cost as a proportion of the NMG's annual expenditure will be insignificant, ranging from 0.03% in 2013 to 0.34% in 2014 to 0.07% in 2017. The NMG's annual commitment to the project as a percentage of the total education budget is projected to increase from 0.19% in 2013 to 0.33% in 2017. The financial analysis confirms that the NMG has adequate financial resources and will be able to provide the necessary counterpart funds for the project and to cover annual operations, maintenance costs and debt service requirements.<sup>17</sup>

<sup>14</sup> Economic Analysis (accessible from the list of linked documents in Appendix 2).

<sup>15</sup> K. Wu et al. 2012. *Early Child Development in China*. World Bank eLibrary.

<sup>16</sup> Consisting of 15,087 nurses, 1,591 rural doctors, and 14,350 kindergarten teachers.

<sup>17</sup> Financial Analysis (accessible from the list of linked documents in Appendix 2).

### C. Governance

27. **Financial management and procurement capacity assessment.** The project will be ADB's second loan to the NMG, which is successfully managing other projects funded by bilateral and multilateral financial institutions. The financial management and procurement capacity assessments focused on the XIDC as the principal implementing agency, and concluded that the XIDC has adequate capacity for financial management and procurement in accordance with ADB policies and procedural requirements as well as national procurement laws and regulations. The Nanning Finance Bureau has a proven track record in the financial management of both ADB and World Bank projects. The PMO and TVET institutions will not have major roles in project financial management and procurement. The project management output includes providing training and advice to the PMO and implementing agencies in ADB procedures, including procurement, disbursement, project management, accounting, and financial reporting systems. The results of the financial management assessment are summarized in the financial analysis. Recommended improvements in the financial management assessment have been incorporated into the project design and are documented in the PAM. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the NMG and PMO. The specific policy requirements and supplementary measures are also described in the PAM.

### D. Poverty and Social

28. Social analysis was conducted in accordance with ADB guidelines.<sup>18</sup> Of Nanning Municipality's population, 73% is registered in rural areas. Ethnic minorities comprise 53% of the population, and among the various ethnic groups,<sup>19</sup> the Zhuang constitute 51% of the total population. Poverty is primarily rural (19.5%). Students coming from poor areas comprise 28% in preschool, 36% in nursing, and 41% in rural doctor majors. Government policy allows for all students to be exempt from tuition fees, and there are extra subsidies for supporting students who are poor or from remote areas and/or ethnic minorities. Actions under the social action plan in the PAM include (i) development of ethnic minority culture curriculum for the kindergarten program; (ii) targets to increase enrollment of poor and rural students; (iii) design of a bridging module in the elderly care program; (iv) community consultations on design and implementation of construction; (v) social indicators (e.g., ethnicity, *hukou*,<sup>20</sup> sex, income group) in project monitoring; and (vi) a social and gender expert on the consulting team. Requirements to use core labor standards and provide HIV/AIDS awareness training in the construction contracts will mitigate social risks.

29. **Gender and development.** The project is categorized as effective gender mainstreaming. Both schools have a majority of female staff and students in the selected majors.<sup>21</sup> The project will create employment opportunities for students who are mostly from poor and rural areas. Improving the quality of social services TVET will create pathways for women to enter the economy and participate in the social and economic development of Nanning. Actions in the gender action plan<sup>22</sup> include (i) development of gender sensitive materials for the CBC, (ii) targets for training female staff, (iii) development of a recruitment program in rural areas that addresses gender stereotypes in TVET major selection, and (iv) targets for women's employment in construction activities.

<sup>18</sup> Summary Poverty Reduction and Social Strategy (accessible from the list of linked documents in Appendix 2).

<sup>19</sup> Other ethnic groups include Yao, Miao, Dong, and Hui.

<sup>20</sup> *Hukou* is a residency document of a PRC citizen that determines the source and kind of welfare benefits.

<sup>21</sup> Female composition: NVTS: 55% staff and 98.7% students; NHS: 55% staff, 76% nursing staff, and 98% students.

<sup>22</sup> Gender Action Plan (accessible from the list of linked documents in Appendix 2).

## E. Safeguards

30. **Environment.** The project is classified as category B for environment. An initial environmental examination (IEE),<sup>23</sup> including the environmental management plan, was prepared and disclosed on the ADB website on 15 July 2013. The IEE complies with ADB's Safeguard Policy Statement (2009). The IEE concludes that the project's anticipated environmental impacts can be mitigated through implementation of the environmental management plan. During construction, some environmental impacts are anticipated, including noise, fugitive dust, demolition wastes, and risks to community and occupational health and safety. Overall, construction-related impacts are localized, short-term, and can be effectively mitigated through the application of good construction practices. During operation, no major environmental impacts are anticipated, and minor impacts will be addressed through the improvement of campus-wide environmental management systems. Environmental management is supported by loan covenants, capacity development, and institutional strengthening activities under the project. Environmental complaints or disputes will be handled in accordance with the grievance redress mechanism established for the project. The project will help establish energy-efficient, safe, and green campuses. The consulting services under the project will provide expert support to the NHS and NVTs in developing campus-wide environmental management systems based on the Draft Campus Greening Policy Framework defined in the IEE.

31. **Resettlement.** The involuntary resettlement category is C. The project activities will neither require land acquisition nor resettlement. Resettlement due diligence has been undertaken for the new NHS campus, yielding satisfactory results with no outstanding issues.

32. **Indigenous peoples.** The indigenous peoples category is B. No project activities will adversely affect indigenous people. Ethnic minority students and staff are a majority at both TVET schools. Ethnic minority communities using rural health services and kindergartens will benefit from improved services. In accordance with ADB's Safeguard Policy Statement (2009), the project has included measures in the overall project design in lieu of preparing a separate indigenous peoples plan.<sup>24</sup> An analysis of the issues,<sup>25</sup> stemming from consultations with staff, students, and other stakeholders (e.g., the Nanning Ethnic Minority Affairs Bureau), was prepared and recommended actions integrated into the project design. Measures to ensure ethnic minority inclusion include (i) design of ethnic minority culture curriculum for kindergarten major; (ii) assessment of issues in elderly care; (iii) improvement of rural student recruitment; and (iv) ethnicity indicators in tracer studies.

## F. Risks and Mitigating Measures

33. Major risks and mitigating measures are summarized in Table 4 and detailed in the risk assessment and risk management plan.<sup>26</sup> Integrated benefits and impacts are expected to outweigh the costs.

<sup>23</sup> Initial Environmental Examination (accessible from the list of linked documents in Appendix 2).

<sup>24</sup> "If Indigenous Peoples are the sole or the overwhelming majority of direct project beneficiaries, and when only positive impacts are identified, the elements of an [indigenous peoples plan] could be included in the overall project design in lieu of preparing a separate [indigenous peoples plan]." ADB. 2009. Safeguard Policy Statement. Manila. p 57.

<sup>25</sup> Appendix 3 in the PAM.

<sup>26</sup> Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

**Table 4: Summary of Risks and Mitigating Measures**

<b>Risks</b>	<b>Mitigating Measures</b>
Poor social perception of TVET limits interest of potential trainees.	The project will develop human resources strategies for recruitment, continuing professional development, and partnership with the service industries to improve relevance, quality, and social perceptions. The strategies need to be complemented by continued strong support from the central government on improving TVET quality and enhancing its social status as a facilitator of growth.
The commitment of TVET institutions to implementing change is not sustained.	TVET improvement strategies have been developed through a consultative process that indicated a strong recognition of the need to improve. Additionally, the strategies were individually reviewed and finalized with the participation of the schools themselves.
Insufficient interest by the NMG and GZAR government in integrating the pilot innovations.	The NMG is willing to give a loan assurance that they will actively disseminate the pilot results and seek to make them models of best practice. There will also be ongoing policy dialogue on the pilot activities with relevant departments of the NMG and GZAR government.
Procurement capacity is low, leading to mistakes or delays in procurement.	The project will provide training in project management and planning. Standard bidding documents will be used along with ADB advance contracting facility, and advice and support of a tendering company and consultants will be provided. Timely provision of this support is planned to maximize its mitigation impact, including the use of a start-up consultant in advance of loan effectiveness.

ADB = Asian Development Bank, GZAR = Guangxi Zhuang Autonomous Region, NMG = Nanning Municipal Government, TVET = technical and vocational education and training.

Source: Asian Development Bank.

#### **IV. ASSURANCES**

34. The government and the NMG have assured ADB that the implementation of the project shall conform to all applicable ADB policies including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the project administration manual and loan documents. The government and the NMG have agreed with ADB on certain covenants for the project, which are set forth in the draft loan and project agreements.

#### **V. RECOMMENDATION**

35. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the loan of \$50,000,000 to the People's Republic of China for the Guangxi Nanning Vocational Education Development Project, 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 25 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 project agreements presented to the Board.

Takehiko Nakao  
President

18 November 2013

## DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
<p><b>Impact</b> Improved delivery of social services in Nanning Municipality</p>	<p><b>By 2022</b> Gross enrollment rate will be 75% for 3-year preschool and 95% for 1-year preschool (Baseline 2010: 54% for 3-year preschool and 74% for 1-year preschool, to be disaggregated by urban or rural)</p> <p>The number of rural doctors per 1,000 people will be 2.10 and the number of licensed nurses per 1,000 people will be 3.14 (Baseline 2009: rural doctors 0.8 per 1,000 people and licensed nurses 1.39 per 1,000 people)</p>	<p>Nanning Educational Bureau annual statistics</p> <p>Nanning Health Bureau annual statistics</p>	<p><b>Assumption</b> Government commitment to improving delivery of social services is sustained with adequate budget support</p> <p><b>Risk</b> The economy and social services fail to expand on a sustainable basis</p>
<p><b>Outcome</b> Increased TVET quality and training capacity in the NHS and NVTS by 2020</p>	<p><b>By 2018</b> 95% of school graduates find initial employment within 6 months of graduation (disaggregated by sex) (Baseline to be determined through baseline studies in 2014)</p> <p>Increased employer satisfaction with knowledge, skills, and competencies of employees graduating from the project TVET institutions (Baseline to be determined through baseline studies in 2014)</p>	<p>Tracer studies</p> <p>Impact assessment report, employer survey, and tracer studies</p>	<p><b>Assumption</b> Public and private industry experts participate fully in developing and delivering effective training programs</p> <p><b>Risk</b> Low wages in social services reduces interests in social sector TVET</p>
<p><b>Outputs</b> 1. TVET capacity strengthened in project schools</p>	<p>At least 80% of teachers (50% women) trained in student-centered pedagogy and competency-based curriculum development in both by 2017</p> <p>Gender inclusive training, curriculum, and recruitment outreach materials developed in collaboration with industry and TVET schools</p> <p>At least two industry reference groups established and six memoranda of understanding signed with international and/or national partners</p> <p>At least 20 teachers and 2,000 students (at least 85% of whom are women) trained in new elderly care curriculum (Baseline is 0)</p> <p>Elderly care curriculum developed and approved by Q2 of year 2</p>	<p>School quarterly reports</p> <p>Approved materials</p> <p>Project progress reports and memoranda of understanding</p> <p>School department records</p> <p>Approved curriculum documents and letters of endorsement by the NHB and the NHS</p>	<p><b>Assumption</b> TVET institutions have adequate and qualified manpower for capacity strengthening</p> <p><b>Risk</b> Commitment of TVET institutions to implementing change in teaching and learning methods is not sustained</p>

<b>Design Summary</b>	<b>Performance Targets and Indicators with Baselines</b>	<b>Data Sources and Reporting Mechanisms</b>	<b>Assumptions and Risks</b>
2. Pilot programs implemented in project schools	<p>At least two rural training bases established with local practitioners as trainers by 2015 (at least 80% of the nurses and 30% of the rural doctors are female trainees)</p> <p>One kindergarten training base functioning at the NVTs using action research and inclusive design features (such as ethnic minority curriculum, standards for student to space ratio by 2016)</p>	<p>Project progress reports</p> <p>Project progress reports</p>	<p><b>Assumption</b> Operations and maintenance costs of sustaining and expanding the pilots after the project will be provided</p> <p><b>Risk</b> Insufficient interest by the GZAR government and the NMG in integrating the pilot innovations</p>
3. Buildings, campus facilities, and equipment upgraded	<p>Civil works and facilities completed for the NVTs and (13 buildings) and NHS (5 buildings) by 2016</p> <p>Green campus policy designed and environmental management system developed and implemented on both campuses by 2016</p> <p>Training equipment installation in the two TVET institutions completed by year 4</p> <p>Number of students benefiting from new or improved facilities increased (sex disaggregated)</p>	<p>Project progress reports</p> <p>Project progress reports</p> <p>Project progress records</p> <p>School records</p>	<p><b>Assumptions</b> Government counterpart inputs are provided on time and are adequate</p> <p>Executing agency and implementing agencies have strong capacity in project management, and the procurement agent and project implementation consultant are hired in a timely manner</p> <p>Equipment does not become obsolete due to changing curriculum</p>
4. Project management support implemented	<p>PMO established and fully staffed by year 1</p> <p>PMO staff provided with training from year 1</p> <p>Workshops to disseminate knowledge and lessons learned conducted.</p>	<p>Project progress reports</p> <p>Project progress reports</p> <p>Midterm and completion report</p>	<p><b>Assumption</b> PMO fully staffed</p> <p><b>Risk</b> Staff turnover creates delays</p>

<b>Activities with Milestones</b>	<b>Inputs</b>	
<p><b>1. TVET Capacity Strengthened in Project Schools</b></p> <p><b>1.1 Curriculum Development</b></p> <p>1.1.1 Complete needs and demands analysis within 3 months of commencement of consulting service</p> <p>1.1.2 Develop new or modified training modules for kindergarten teachers and nurse educators by end 2016</p> <p><b>1.2 Teacher Training</b></p> <p>1.2.1 Design and deliver student-centered methods courses in both schools by 2016</p> <p>1.2.2 Design and deliver CBC development courses in both schools by 2016</p> <p>1.2.3 Identify and build capacity of a cohort of 10 key trainers in each school by 2017</p> <p>1.2.4 Develop and implement a continuing professional development</p>	<b>ADB: Total \$50 million</b>	
	<b>Item</b>	<b>Amount (\$ million)</b>
	Civil works	41.74
	Equipment	4.87
Capacity development	3.39	



Activities with Milestones	Inputs										
framework by 2017 <b>1.3 Human Resources</b> 1.3.1 Conduct needs assessment for human resources development strategy at both schools by 2014 1.3.2 Develop and implement tracer studies by 2015 1.3.3 Identify institutions and establish partnership agreements by 2016 <b>1.4 Elderly Care</b> 1.4.1 Conduct occupational analysis for elderly care nursing by end of 2014 1.4.2 Develop and implement CBC and standards for elderly care by 2016 1.4.3 Develop bridging courses between elderly care worker and nursing program by 2016 <b>2. Pilot Programs Implemented in Project Schools</b> <b>2.1 Rural Training Bases</b> 2.1.1 Select the site(s) for the rural training centers by 2014 2.1.2 Pilot test the rural training center concept by 2016 2.1.3 Evaluate the pilot and develop sustainability strategy for post-pilot stage by 2017 <b>2.2 Kindergarten Training Base</b> 2.2.1 Kindergarten constructed, fully equipped, and operational by 2016 2.2.2 Vision, mission, and strategies for a sustainable kindergarten training base formulated by 2015 2.2.3 Action research program established by 2016 <b>3. Buildings, campus facilities, and equipment upgraded</b> 3.1 Prepare and complete engineering design (including energy efficiency, safety, and bidding documents by 2014) 3.2 Commence civil works construction by Q2 2014 and complete by 2017 3.3 Prepare and complete equipment specifications and bidding documents by 2014 3.4 Procure, install, and test equipment by 2017 <b>4. Project management support implemented</b> 4.1 Appoint consultant and conduct initial training of PMO and implementing agency staff by 2014 4.2 Establish an operational project performance monitoring system by Q3 2014 4.3 Implement and monitor the environmental management plan and the social and gender action plans (ongoing until project completion) 4.4 Evaluate and disseminate experiences by 2018	<b>Government: Total \$52.69 million</b>										
		<table border="1"> <thead> <tr> <th data-bbox="1060 281 1276 338">Item</th> <th data-bbox="1276 281 1417 338">Amount (\$ million)</th> </tr> </thead> <tbody> <tr> <td data-bbox="1060 338 1276 394">Civil works</td> <td data-bbox="1276 338 1417 394">38.34</td> </tr> <tr> <td data-bbox="1060 394 1276 451">Equipment</td> <td data-bbox="1276 394 1417 451">0.49</td> </tr> <tr> <td data-bbox="1060 451 1276 508">Contingencies</td> <td data-bbox="1276 451 1417 508">11.94</td> </tr> <tr> <td data-bbox="1060 508 1276 1239">Financing charges during implementation</td> <td data-bbox="1276 508 1417 1239">1.92</td> </tr> </tbody> </table>	Item	Amount (\$ million)	Civil works	38.34	Equipment	0.49	Contingencies	11.94	Financing charges during implementation
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CBC = competency-based curricula, GZAR = Guangxi Zhuang Autonomous Region, NHB = Nanning Health Bureau, NHS = Nanning Health School, NMG = Nanning Municipal Government, NVTS = Nanning No. 4 Vocational and Technical School, PMO = project management office, TVET = technical and vocational education and training. Source: Asian Development Bank.

### **LIST OF LINKED DOCUMENTS**

<http://adb.org/Documents/RRPs/?id=46047-002-3>

1. Loan Agreement
2. Project Agreement
3. Sector Assessment (Summary): Education
4. Project Administration Manual
5. Contribution to the ADB Results Framework
6. Development Coordination
7. Financial Analysis
8. Economic Analysis
9. Country Economic Indicators
10. Summary Poverty Reduction and Social Strategy
11. Gender Action Plan
12. Initial Environmental Examination
13. Risk Assessment and Risk Management Plan

#### **Supplementary Documents** (available upon request)

14. Full Financial Analysis (including Financial Management Assessment)
15. Full Economic Analysis