

Project Administration Manual

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

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ABBREVIATIONS

ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
CPD	continuing professional development
DMF	Design and Monitoring Framework
EGM	effective gender mainstreaming
EMDP	ethnic minority Development plan
EMP	environment management plan
EIS	environment impact statements
ERDP	Education Reform and Development Plan (2010–2020)
GAP	gender action plan
GFD	Guangxi Regional Finance Department
GRM	grievance redress mechanism
GNVEDP	Guangxi Nanning Vocational Education Development Project
GZAR	Guangxi Zhuang Autonomous Region
GZARG	Guangxi Zhuang Autonomous Regional Government
IEE	initial environmental examination
ILO	International Labour Organization
M&E	monitoring and evaluation
MHRSS	Ministry of Human Resources and Social Security
NEB	Nanning Municipal Education Bureau
NFB	Nanning Municipal Financial Bureau
NHB	Nanning Municipal Health Bureau
NHS	Nanning Health School
NMG	Nanning Municipal Government
NNDRC	Nanning Municipal Government Development and Reform Commission
NVTS	Nanning No. 4 Vocational and Technical School
PAM	project administration manual
PIC	project implementation consultant
PMO	Nanning GNVEDP Project Management Office
PPTA	project preparatory technical assistance
PRC	People's Republic of China
RRP	report and recommendation of the president
SAP	social action plan
SPS	safeguard policy statement
SVS	secondary vocational schools
TVC	tertiary vocational colleges
TVET	technical and vocational education and training
XIDC	Xiangsihu Investment and Development Company

Project Administration Manual Purpose and Process

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with Government and Asian Development Bank (ADB) policies and procedures. The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The Nanning Municipal Government (NMG), Nanning Education Bureau (NEB), Nanning Health Bureau (NHB) and the 2 participating TEVT Institutions are wholly responsible for the implementation of this ADB financed project, as agreed jointly between the borrower and ADB, and in accordance with Government and ADB's policies and procedures. ADB staff is responsible to support implementation including compliance by NMG, Nanning Education Bureau, Nanning Health Bureau and the 2 participating TEVT Institutions of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At Loan Negotiations the borrower and ADB shall agree to the PAM and ensure consistency with the Loan agreement. Such agreement shall be reflected in the minutes of the Loan Negotiations. In the event of any discrepancy or contradiction between the PAM and the Loan Agreement, the provisions of the Loan Agreement shall prevail.

After ADB Board approval of the project's report and recommendations of the President (RRP) changes in implementation arrangements are subject to agreement and approval pursuant to relevant Government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval they will be subsequently incorporated in the PAM.

I. PROJECT DESCRIPTION

A. Rationale

1. Rapid urbanization has contributed significantly to economic growth in the People's Republic of China (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.¹ 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.

2. Urbanization and the ambitious plans for economic transformation create both a challenge and an opportunity for the education sector, and especially for the technical and vocational education and training (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.

3. 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.² 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 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.

4. Nanning is the capital city of Guangxi Zhuang Autonomous Region (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.

5. 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

¹ National People's Congress. 2011. *Twelfth Five-Year Plan for National Economic and Social Development 2011–2015*. Beijing.

² Overall, preschool students in the PRC will increase from 26.58 million in 2009 to 40.00 million by 2020.

additional 21,000 new teachers.³ 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.⁴

6. 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.⁵ 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.

7. 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) 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.

8. **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,⁶ Strategy 2020,⁷ 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.

9. **Special features.** The project includes

³ 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.

⁴ Nanning has 23,518 village clinics, of which only 8.7% are public.

⁵ 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.

⁶ ADB. 2012. *Country Partnership Strategy: People’s Republic of China, 2011–2015*. Manila.

⁷ ADB. 2008. *Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank, 2008–2020*. Manila.

- (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 demanded.

10. **Incorporation of lessons learned.** Lessons from ADB and World Bank TVET projects⁸ 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

11. 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.

C. Outputs

12. **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.

13. **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.

⁸ Development Coordination (accessible from the list of linked documents in Appendix 2 of the Report and Recommendation of the President).

14. **Output 3: Buildings, campus facilities, and equipment upgraded.** The project will construct building and auxiliary facilities for the new NHS⁹ 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.

15. **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.

⁹ 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.

II. IMPLEMENTATION PLANS

1. Implementation plans have been prepared and agreed to as to cover (i) project readiness plan and activities, ensuring that the loan effectiveness is activated in a timely manner; and (ii) overall implementation plan. The overall plan will be adjusted at the time of loan effectiveness, then be reviewed and updated on an annual basis during the project implementation period. These plans are set out below.

A. Project Readiness and Activities

Indicative Activities	2013												2014						Responsible Agency(s)
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	
Project Implementation Arrangements Established																			NMG, NNDRC, NEB, PMO, implementation agencies
PPTA Contracting Firm Recruited																			ADB
Feasibility Study Report Approved																			NNDRC, GDRC
FCUP and PFER Prepared and Submitted																			PMO, NFB, GFB NNDRC
ADB Management Review Meeting																			ADB
FCUP and PFER Processed and Approved																			NNDRC, MOF
Start-up Consultant Recruited																			NNDRC, PMO
Tendering Company Appointed																			PMO
Loan Negotiations Completed																			ADB, MOF, NMG
ADB Board Approval																			ADB
Loan Agreement Signed																			ADB, MOF, NMG
Advanced Contracting / Retroactive Financing																			PMO
On-lending Agreement Signed																			GFD, NFB,
Government Legal Opinion Provided																			MOF, MOFA
Loan Effectiveness																			ADB, MOF

ADB = Asian Development Bank, FCUP = foreign capital utilization plan, GDRC = Guangxi Development Reform Commission, GFD = Guangxi Autonomous Region Financial Department, GFB = Guangxi Autonomous Region Finance Bureau, MOF = Ministry of Finance, MOFA = Ministry of Foreign Affairs, NEB= Nanning Education Bureau, NFB = Nanning Finance Bureau, NMG = Nanning Municipal Government, NNDRC = Nanning Development and Reform Commission, PFER = project financing evaluation report, PMO = project management office, PPTA = project preparatory technical assistance

B. Overall Project Implementation Plan

Indicative Activities	2013	2014				2015				2016				2017				2018				
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Implementation Period October 2013 -December 2018																						
0: Advanced contracting / retrospective financing																						
0.1 Start-up consultant appointed as independent individual																						
0.2 Setting up project management procurement and finance systems																						
0.3 Recruitment of project management support consulting firm																						
0.4 Recruitment of the TVET and management support consulting firm																						
0.5 Conduct project management procurement & finance systems Training workshops																						
0.6 Prepare documentation for advanced contracting / retrospective financing																						
Design and Monitoring Framework																						
Output 1: TVET capacity in project schools strengthened																						
1.1 Curriculum Development																						
1.1.1 Needs and demands analysis																						
1.1.2 Development of new or modified training modules																						
1.2 Teacher-training																						
1.2.1 Design & delivery of student-centered methods courses																						
1.2.2 Design & delivery of CBC development courses in both schools																						
1.2.3 build capacity of a cohort of 10 key trainers in each school																						
1.2.4 Develop & implement a CPD framework																						

Indicative Activities	2013	2014				2015				2016				2017				2018			
1.3 Education Leadership																					
1.3.1 Conduct needs and demands analyses for leadership course																					
1.3.2 Develop reference materials for educational leadership practice																					
1.4 Human Resources																					
1.4.1 Conduct needs assessment for human resources development strategy																					
1.4.2 Development and implementation of tracer studies																					
1.4.3 Identification of institutions and establishment of partnership agreements																					
1.4.4 Implementation of partnership agreements																					
1.5 Elderly Care																					
1.5.1 Conduct occupational analysis for nurses for the elderly care																					
1.5.2 Development and implementation of CBC and standards for nurse training for EC																					
1.5.3 Develop bridging courses between elderly care worker training and nursing																					
Output 2: Pilot training bases implemented in Project schools																					
2.1 Rural Training Bases																					
2.1.1 Select the site(s) for the rural training centers																					
2.1.2 Pilot test the rural training center concept																					
2.1.3 Evaluate the pilot and institutionalize rural training centers based on the results																					
2.1.4 Develop sustainability strategy for post pilot stage																					

Indicative Activities	2013	2014			2015			2016			2017			2018		
2.2 Kindergarten Training Base																
2.2.1 Kindergarten constructed, fully equipped and operational																
2.2.2 Vision, mission and strategies for a sustainable KTB formulated																
2.2.3 Innovative teaching-learning strategies developed and implemented																
2.2.4 Action research program established																
Output 3: Buildings, campus facilities and equipment are upgraded																
3.1 Nanning Health School																
3.1.1 Preparation and completion of engineering design and bidding documents																
3.1.2 Procurement of Civil Works																
3.1.3 Civil Works Construction																
3.1.4 Preparation and completion of equipment specifications and bidding documents																
3.1.5 Procurement, installation, and testing of equipment																
3.1.6 Commissioning and handover of facilities																
3.2 Nanning No. 4 Vocational and Technical School																
3.2.1 Preparation and completion of engineering design and bidding documents																
3.2.2 Procurement of Civil Works																
3.2.3 Civil Works Construction																
3.2.4 Preparation and completion of equipment specifications and bidding documents																
3.2.5 Procurement, installation, and testing of equipment																
3.2.6 Commissioning and handover of facilities																

Indicative Activities	2013	2014			2015			2016			2017			2018		
Output 4: Project Management Support is implemented																
4.1 Project Management																
4.1.1 Project Management Consultants appointed			█													
4.1.2 Assist the executing agency and PMO to establish a Grievance Redress Mechanism			█													
4.1.3 Preparation and approval of detailed training plan			█	█												
4.1.4 Establishment of an operational PPMS			█	█	█											
4.1.5 Implementation and monitoring of the EMP, and the social and gender action plans			█	█	█	█	█	█	█	█	█	█	█	█	█	█
4.1.6 Evaluate and disseminate experiences															█	█
4.1.7 Implement the Training Program				█	█	█	█	█	█	█	█					
4.2 EMS																
4.2.1 Organize/facilitate EMS workshop for stakeholders			█													
4.2.2 Develop and implement an improved EMS in each TVET institution				█	█	█	█	█								

CBC = competency-based curriculum, CPD = continued professional development , EMS = environment management system, KTB = Kindergarten Training Base, PMO = project management office, PPMS = project performance monitoring system, TVET = technical and vocational education and training.

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations—Roles and Responsibilities

1. The executing agency for the project is Nanning Municipal Government (NMG). NMG has established a leading group headed by a deputy mayor. The leading group includes the directors or deputy directors of NMG agencies, including the Development and Reform Commission, Financial Bureau, Education Bureau, and other relevant agencies. Under the leading group a project management office (PMO) has been established to conduct daily coordination of the project preparation and implementation. The PMO Director is a deputy director of Nanning Development Reform Commission. The PMO includes representatives from NNDRC, Financial Bureau, Education Bureau, Health Bureau, Nanning No. 4 Vocational and Technical School (NVTs), Nanning Health School (NHS), and Xiangsihu Investment and Development Company (XIDC). NMG has designated a government-owned company, XIDC which has project investment, development, and construction management experience, to assist NHS and NVTs, the two technical and vocational education and training (TVET) institutions benefitting directly from the project. XIDC will assume responsibility for the implementation of the civil engineering and related equipment packages, while NHS and NVTs will implement the TVET capacity building components relevant to their school. Each project TVET institution has established a project implementing unit to liaise with XIDC in procurement, contract management, construction management, and equipment installation matters. Asian Development Bank (ADB) will be responsible for administering the ADB-financed components of the project, and jointly with NMG to supervise project implementation. The implementation roles and responsibilities are summarized in the table below.

Project Implementation Organizations	Management Roles and Responsibilities
1. Project Execution The executing agency will be Nanning Municipal Government.	Establish the project management arrangements. Assumes overall accountability for ensuring project success.
1.1. Project Leading Group	NMG has established the Nanning PLG, led by the Vice Mayor of Nanning Municipality, including high-level officials from NNDRC, NEB, NFB, and other key stakeholders to: (i) Provide overall project direction and any required policy guidance. (ii) Oversee the preparation and implementation of the project. (iii) Provide overall guidance to the project. (iv) Support cross-agency policy dialogue. (v) Review project progress and provide strategic advice to support effective implementation.
1.2 Nanning Development and Reform Commission	NNDRC will exercise day-to-day oversight of the project and will be responsible for: (i) Approval of domestic feasibility study and submission of authorization requests for foreign capital utilization. (ii) Approval of any major changes needed to project scope. (iii) Liaison with GDRC and NDRC. (iv) Facilitating interdepartmental and intersectoral cooperation needed for effective project implementation. (v) Economic planning and managing the alignment of individual sector plans and reforms with the approved economic plans. (vi) Involvement in policy dialogue.
1.3 Nanning GNVEDP Project Management Office	NMG has established a PMO within the NNDRC under the direction of the PLG that will be responsible for: (i) Supervision of implementing agency activities and provide guidance and support, as needed. (ii) Coordinate project preparation and implementation activities, including the necessary implementation, financial and procurement planning. (iii) Monitor and report project progress and performance, including in relation to environmental, social and gender matters. (iv) Appoint and supervise the activities of consultants. (v) Communication and coordination with ADB.

Project Implementation Organizations	Management Roles and Responsibilities
	<ul style="list-style-type: none"> (vi) Establish and operate the GRM. (vii) Prepare and submit ad-hoc reports on project activities as required. (viii) Appoint the tendering company and supervise project procurement.
2. Project Implementation	
2.1 Implementation Agency Activities	
<p>Implementing agencies:</p> <ol style="list-style-type: none"> 1. Xiangsihu Development and Investment Company 2. Nanning Health School and Nanning No. 4 Vocational and Technical School 	<p>XIDC will implement all the physical components of the project with responsibilities which include:</p> <ul style="list-style-type: none"> (i) Appointment of design, construction supervision, and required monitoring institutes. (ii) Liaison with NHS and NVTs over design proposals and obtaining their sign-off. (iii) Undertaking detailed procurement work for all works and equipment contracts and the appointment of the procurement agent. (iv) Liaison with NFB and other agencies as needed regarding the timely provision of counterpart funding. (v) Contract management. (vi) Project accounting. (vii) Progress monitoring and reporting to PMO. (viii) Commissioning and handover of physical assets upon completion. <p>XIDC will be supported by a procurement agent and the PIC in all procurement transactions. The procurement agent and a start-up consultant will advise the PMO on the procurement and appointment of the PIC.</p> <p>NHS and NVTs responsibilities include:</p> <ul style="list-style-type: none"> (i) Establishing and maintaining a project implementation unit within the school to coordinate school level project activity and be a focal point for liaison with the PMO and XIDC. (ii) Implementation of school level TVET strengthening activities. (iii) Providing counterpart staff for TVET strengthening activities. (iv) Establishing and maintaining school level project monitoring systems and reporting to PMO. (v) Participation in periodic review of TVET improvement strategies and in project impact evaluation. (vi) Participation in Industry reference groups. (vii) NHS and NVTs will only participate in parts of the procurement activities, such as technical specification requirements and bidding evaluation, or in small scale procurement relating to TVET strengthening activities.
<p>Implementing units within:</p> <ol style="list-style-type: none"> 1. Nanning No. 4 Vocational and Technical School 2. Nanning Health School 	<ul style="list-style-type: none"> (i) Day to day liaison with the PMO and XIDC. (ii) Review and arrange for school sign-off on project designs, construction plans and handover of completed works. Attend bid evaluations where appropriate. (iii) Closely work with consultants to implement school level project activities, especially in respect of TVET strengthening (i.e. CBC, teacher-training, establishment of partnerships etc.). (iv) Ensure quality in project activities necessary to meet objectives. (v) Coordinate the EMS and green campus activities within their school. (vi) Monitor and report on project activities and progress to the PMO. (vii) Keep project accounting records for school level activities and prepare disbursement applications for submission to PMO.
<p>TVET industry reference groups:</p> <ol style="list-style-type: none"> 1. Health Industry (Nursing) 2. Preschool / Kindergarten Industry 	<p>The objectives of these committees are to improve the alignment of TVET courses with the needs of employers. The specific terms of reference are set out below this table. The participants serving on this committee will include:</p> <ul style="list-style-type: none"> (i) qualified experts from industries and the industry advisory groups;

Project Implementation Organizations	Management Roles and Responsibilities
	(ii) experts from relevant government bureaus; and (iii) experts from the relevant TVET school.
3. Other Stakeholders Involved in Project Implementation	
3.1 Nanning Health Bureau and Nanning Educational Bureau	(i) Supervision of the individual project TVET institution within their jurisdiction. (ii) Review, comment and endorse capacity building outputs as appropriate. (iii) Participate in relevant policy dialogue, the review of TVET improvement strategies, the evaluation of project impact, and the preparation of dissemination strategies. (iv) Manage the dissemination of project materials and experience gained within Nanning, and liaises with relevant GZAR authorities over wider dissemination. (v) Participate in training and other capacity building activities as appropriate.
3.2 Nanning Finance Bureau	(i) Maintain the project sub-account and keep necessary financial records. (ii) Arrange counterpart funding in conjunction with the XIDC. (iii) Arrange or make the disbursement of ADB loan funds to implementing agencies. Exercise financial supervision over the implementing agencies.
3.3 Local Industries and Enterprises	(i) Participate in industry reference groups and related activities to align labor skills with current and future industry needs. (ii) Enter into formal TVET and/or industry partnership agreements, where appropriate. (iii) Participate in labor market information sharing.

ADB = Asian Development Bank, CBC = competency-based curriculum, EMS = environment management system, GDRC = Guangxi Development Reform Commission, GRM = grievance redress mechanism, GZAR = Guangxi Zhuang Autonomous Region, NEB = Nanning Education Bureau, NFB = Nanning Finance Bureau, NHB = Nanning Health Bureau, NHS = Nanning Health School, NMG = Nanning Municipal Government, NNDRC = Nanning Development and Reform Commission, PIC = project implementation consultant, PLG = project leading group, PMO = GNVEDP project management office, TVET = technical and vocational education and training, XIDC = Xiangsihu Investment and Development Company.

2. It is envisaged that there will be two **industry reference groups**, one for NVTS and one for NHS. The role of the groups is mainly advisory. The terms of reference are as follows:

- (i) Advise the relevant bureau (i.e. NEB or NHB) and the curriculum development committee(s) of the two institutions (i.e. NVTS or NHS) on validation of study programs developed and ensuring these meet identified industry needs.
- (ii) Advise the relevant bureau (i.e. NEB or NHB) and the curriculum and teacher-training working groups within the two institutions (i.e. NVTS or NHS) in validating municipal level core curriculum standards, competency-based/outcomes based curriculum guidelines and templates, and teacher-training or nurse training standards developed under the project and ensure these meet identified industry needs.
- (iii) Advise the relevant bureau (i.e. NEB or NHB) and the relevant working groups within the two institutions (i.e. NVTS or NHS) in validating teacher-training plans and teacher-training and management capacity building programs developed under the project, and ensure these meet identified industry needs.
- (iv) Advise the relevant bureau (i.e. NEB or NHB) and the relevant working groups within the two institutions (i.e. NVTS or NHS) in validating the framework terms of reference for the industry advisory groups and templates and guidelines for industry attachment and internships developed under the project.
- (v) Advise the relevant bureau (i.e. NEB or NHB) in assessing the recommendations of the policy research studies on elderly care and training for kindergarten conducted under the project.
- (vi) Advise the relevant bureau (i.e. NEB or NHB) in facilitating at the municipal level TVET coordination committee for the labor market information sharing.
- (vii) Assist NVTS or NHS and other TVET institutions with alignment of study programs with industry standards.

- (viii) Advise and facilitate partnerships between employers and project TVET institutions to implement project activities

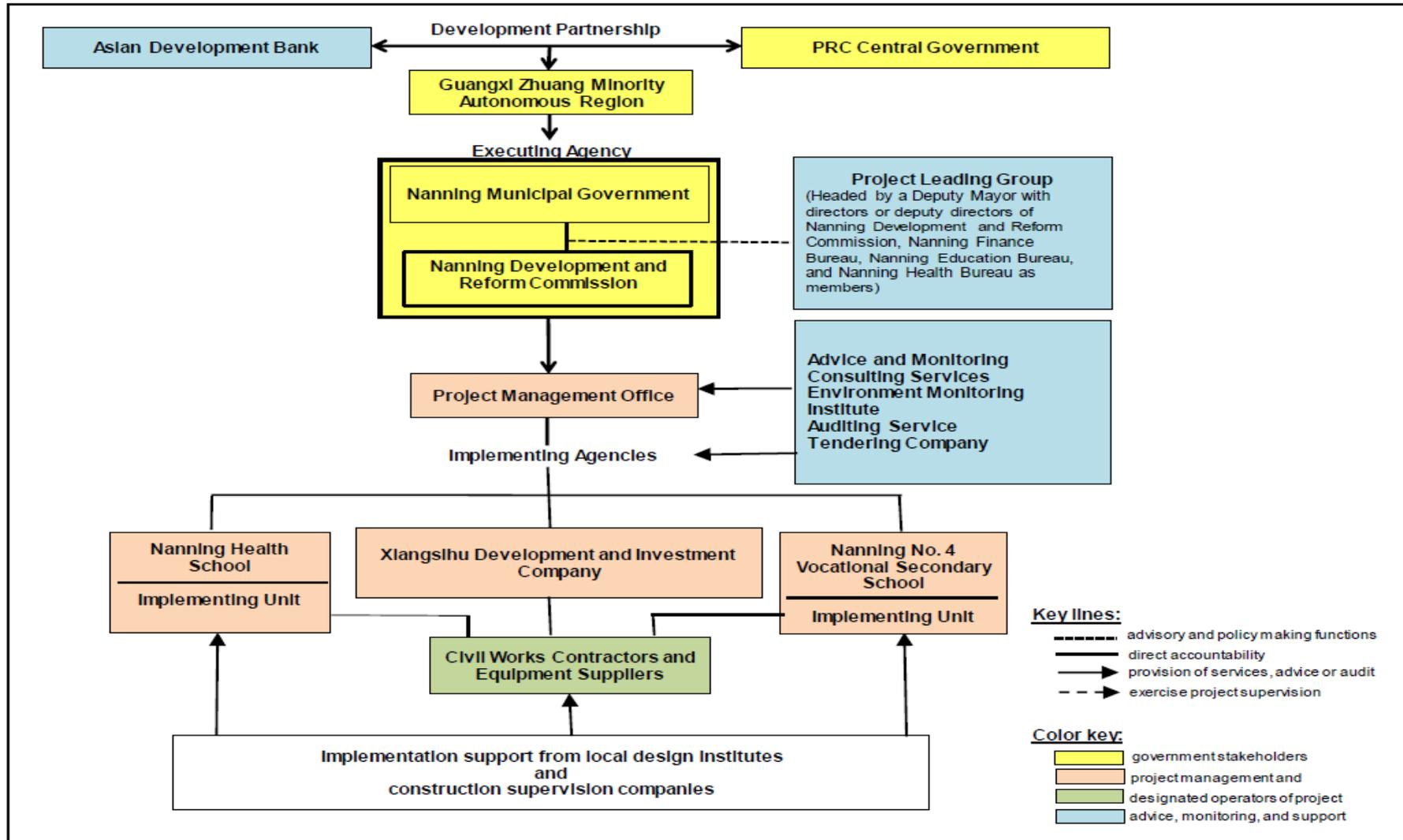
B. Key Persons Involved in Implementation

Executing Agency	
NMG	Officer's Name: Huang Fulai Position: Director, Nanning Project Management Office, Telephone: (86)771 5530266 Email address: ntvetp@126.com Office Address: 12 th Floor, Nanning Municipal Government, Binhu Lu, Qingxiu District, Nanning, GZAR, PRC
ADB	
EASS Division Director	Staff Name: Mr. Diwesh Sharan Position: Director, EASS Telephone No.: (632) 632 6730 Email address: dsharan@adb.org
Mission Leader	Staff Name: Ms. Wendy Walker Position: Senior Social Development Specialist, EASS Telephone No.: (632) 632 5955 Email address: wwalker@adb.org

C. Project Organization Structure

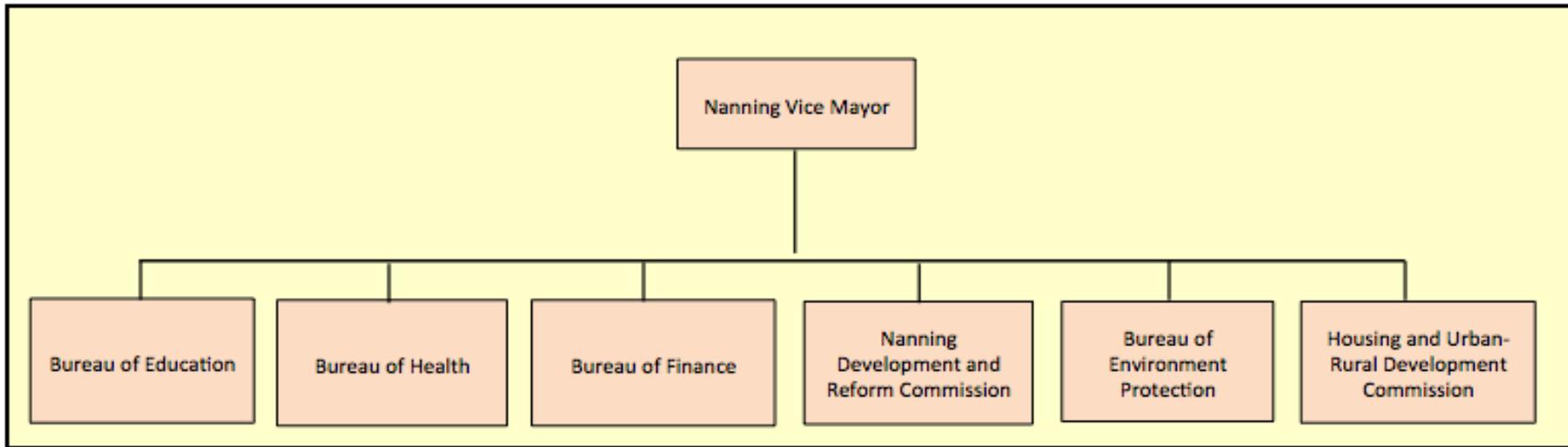
3. Diagrams below show the project organization structure, which includes the (i) overall project implementation arrangements diagram, (ii) project coordination group diagram, and (iii) Nanning municipal PMO.

Overall Project Implementation Arrangements Diagram



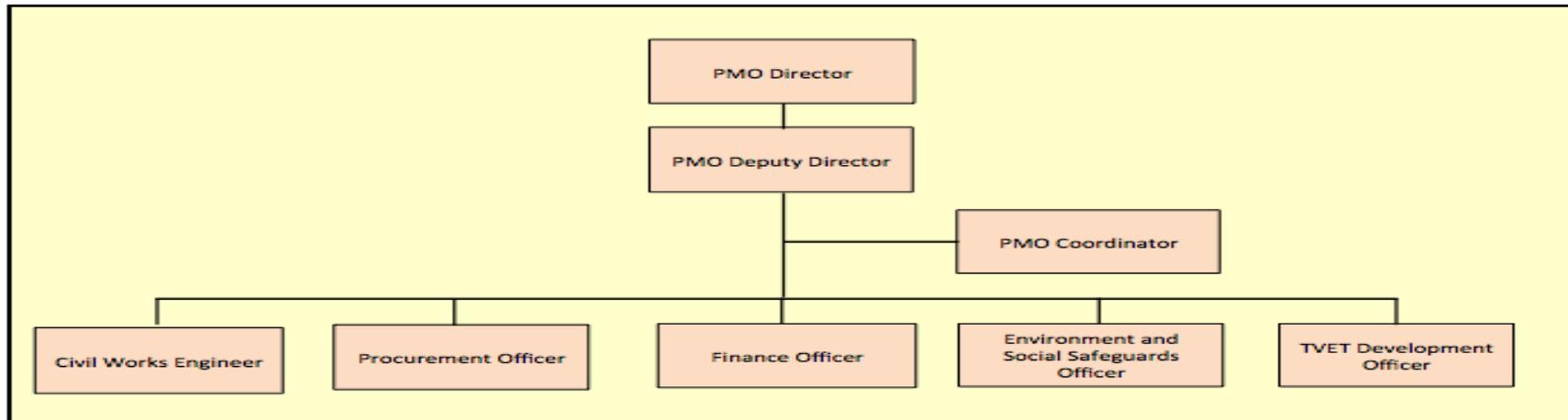
Source: Asian Development Bank estimates.

Project Steering Committee Diagram



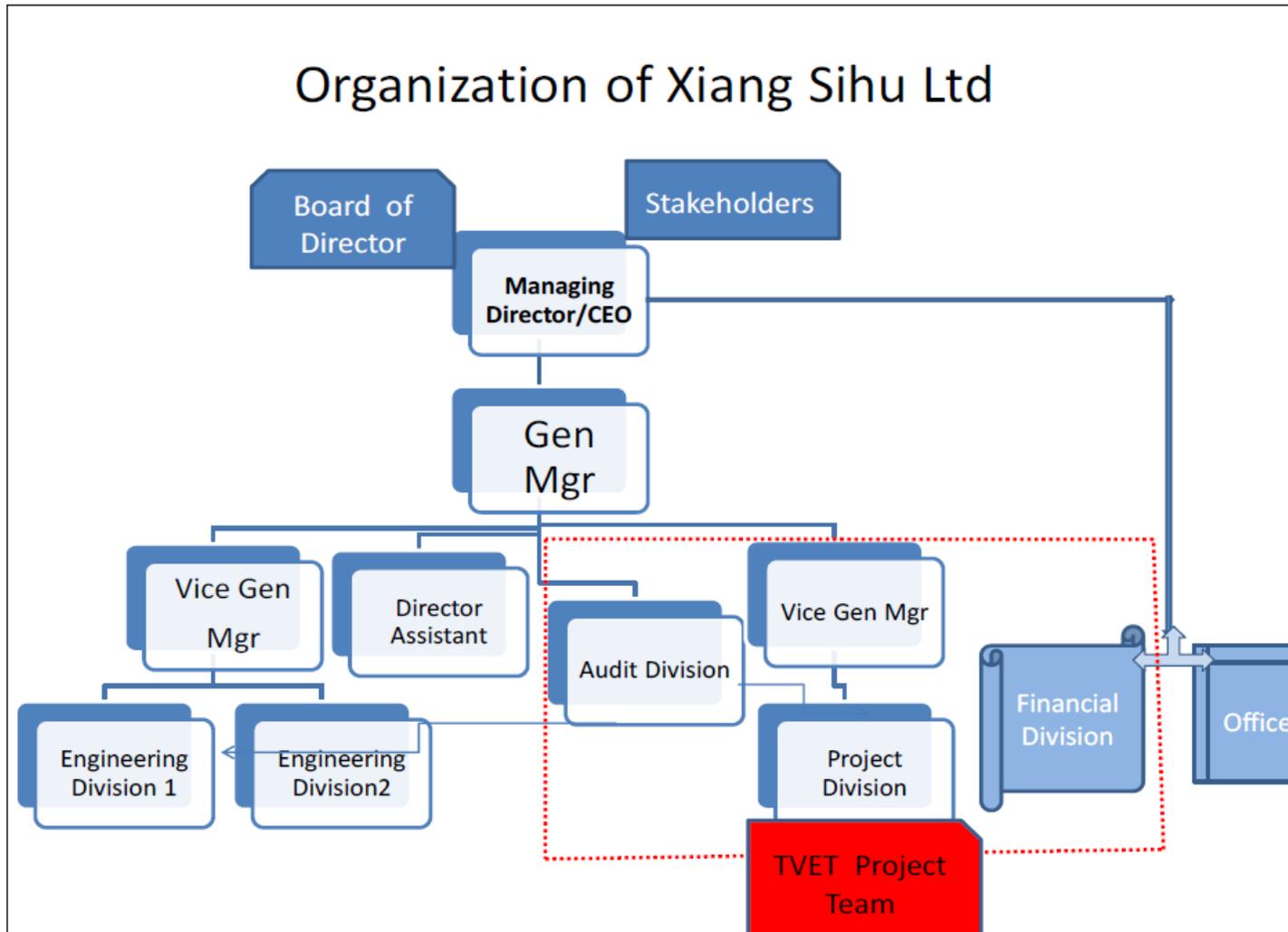
Source: Asian Development Bank estimates.

Project Management Office Diagram



Source: Asian Development Bank estimates.

Organization of Xiangsihu Investment and Development Company



Source: Asian Development Bank estimates.

IV. COSTS AND FINANCING

1. The project is estimated to cost \$102.69 million equivalent, inclusive of taxes and duties of \$2.62 million, physical and price contingencies, and financial charges during implementation. This chapter of the manual provides an analysis of project costs and financing.

2. **Financing plan.** The Government of the People's Republic of China (PRC) has requested a loan of \$50 million from the Asian Development Bank's (ADB) ordinary capital resources to help finance the project. The loan will have a 25-year term including a grace period of five years, an 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 loan and project agreements. The loan will be repaid on a straight-line basis and be utilized for civil works, the purchase of equipment, and capacity building. The loan will also finance taxes and duties on items financed by ADB. The government will finance the remaining amount of \$52.69 million of project cost, including civil works (the balance of costs not ADB financed) and contingencies. Based on the above loan terms and these repayment options, the average loan maturity is 15.25 years and the maturity premium payable to ADB is 0.1% per annum. The Controller's Department in ADB will provide the final confirmation and issue the amortization schedule at loan negotiations

A. Detailed Cost Estimates by Expenditure Category

Item	(CNY million)			(\$ million)			% of Total Base Cost
	Foreign Exchange	Local Currency	Total Cost ^a	Foreign Exchange	Local Currency	Total Cost ^a	
A. Investment Costs^b							
1. Civil Works							
a. Nanning No. 4 Vocational and Technical School							
(i) Civil Works	20.76	187.58	208.35	3.40	30.75	34.16	38.4
(ii) Other Costs ^c	-	19.55	19.55	-	3.20	3.20	3.6
Subtotal Nanning No. 4 Vocational School	20.76	207.13	227.89	3.40	33.96	37.36	42.1
b. Nanning Health School							
(i) Civil Works	24.14	217.27	241.41	3.96	35.62	39.57	44.6
(ii) Other Costs ^c	-	19.19	19.19	-	3.15	3.15	3.5
Subtotal Nanning Health School	24.14	236.46	260.60	3.96	38.76	42.72	48.1
Subtotal Civil Works	44.91	443.59	488.49	7.36	72.72	80.08	90.1
2. Equipment							
a. Nanning No. 4 Vocational and Technical School	1.73	9.93	11.66	0.28	1.63	1.91	2.2
b. Health School	4.21	16.84	21.05	0.69	2.76	3.45	3.9
Subtotal Equipment	5.94	26.77	32.71	0.97	4.39	5.36	6.0
3. Training Bases							
a. Kindergarten Training Base	0.15	0.59	0.73	0.02	0.10	0.12	0.1
b. Rural Training Bases	0.38	1.51	1.89	0.06	0.25	0.31	0.3
Subtotal Training Bases	0.52	2.10	2.62	0.09	0.34	0.43	0.5
4. TVET Capacity Strengthening							
a. Nanning No. 4 Vocational and Technical School	-	4.43	4.43	-	0.73	0.73	0.7
b. Nanning Health School	-	4.43	4.43	-	0.73	0.73	0.7
Subtotal Capacity Strengthening	-	8.87	8.87	-	1.45	1.45	1.4
5. Consulting Services							

Item	(CNY million)			(\$ million)			% of Total
	Foreign Exchange	Local Currency	Total Cost ^a	Foreign Exchange	Local Currency	Total Cost ^a	Base Cost
a. Nanning No. 4 Vocational and Technical School	4.18	-	4.18	0.69	-	0.69	0.7
b. Nanning Health School	5.01	-	5.01	0.82	-	0.82	0.8
Subtotal Consulting Services	9.19	-	9.19	1.51	-	1.51	1.5
Total Project Base Cost (A)	60.56	481.32	541.88	9.93	78.90	88.83	86.5
B. Contingencies^d							
1. Physical	5.51	51.72	57.23	0.90	8.48	9.38	9.1
2. Price	1.12	14.48	5.60	0.18	2.37	2.56	2.5
Total Contingencies (B)	6.63	66.20	72.82	1.09	10.85	11.94	11.6
C. Financial Charges During Implementation (C)^e		11.69	11.69	-	1.92	1.92	1.9
Total Project Cost (A+B+C)	67.19	559.20	626.39	11.01	91.67	102.69	100.0

NOTE: Numbers may not sum precisely due to rounding.

a Investment costs includes taxes and duties amounting to \$2.62 million (CNY15.99 million) to be financed by the government of the People's Republic of China and the Asian Development Bank loan, who will finance \$0.30 million and \$2.32 million, respectively. 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. Tax rate on civil works is 3.4% while for equipment the tax rate applied is 17%.

b In mid-2013 prices.

c Engineering supervision, management fees, surveys, etc. to be borne by the government.

d Physical contingencies were computed at 11% of total civil works and equipment costs for the Nanning No. 4 Vocational and Technical School and Nanning Health to match the contingency provision used in the domestic feasibility study reports as contingencies are fully finance 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 for local currency costs, these were computed at 3.5% for 2014 and 3.0% thereafter.

e Includes interest and commitment charges. Interest during construction for ADB loan was computed at the USD 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.

B. Allocation and Withdrawal of Loan Proceeds

Number	Item	Total Amount Allocated for ADB Financing (\$) Category	Basis for Withdrawal from the Loan Account
1	Works	41,740,051	56.7 % of total expenditure claimed
2	Equipment & Materials	4,870,113	100 % of total expenditure claimed
3	Training Bases	429,836	100 % of total expenditure claimed
4	TVET Capacity Strengthening	1,453,900	100% of total expenditure claimed
5	Consulting Services	1,506,100	100 % of total expenditure claimed
	Total	50,000,000	

TVET = technical and vocational education and training.

Totals may not match due to rounding error.

C. Detailed Cost Estimates by Financier

Item	Asian Development Bank		Government		Total		Foreign Exchange (\$ million)	Local (Excluding Taxes) (\$ million)	Local Duties & Taxes (\$ million)
	Amount ^a (\$ million)	% of Financing	Amount ^a (\$ million)	% of Financing	Amount ^a (\$ million)	% Financed			
A. Investment Costs^b									
1. Civil Works									
a. Nanning No. 4 Vocational and Technical School									
(i) Civil Works									
ADB-financed	19.30	56.7	14.74	43.3	34.04	100.0	3.40	29.98	0.66
Government-financed	-	-	0.11	100.0	0.11	100.0	-	0.11	0.00
(ii) Other Costs ^c	-	-	3.20	100.0	3.20	100.0	-	3.10	0.11
Subtotal Nanning No. 4 Vocational and Technical School	19.30	51.7	18.06	48.3	37.36	100.0	3.40	33.19	0.77
b. Nanning Health School									
(i) Civil Works	22.44	56.7	17.14	43.3	39.57	100.0	3.96	34.85	0.76
(ii) Other Costs ^c	-	-	3.15	100.0	3.15	100.0	-	3.04	0.11
Subtotal Nanning Health School	22.44	52.5	20.28	47.5	42.72	100.0	3.96	37.89	0.87
Subtotal Civil Works	41.74	52.1	38.34	47.9	80.08	100.0	7.36	71.08	1.64
2. Equipment									
a. Nanning No. 4 Vocational and Technical School									
ADB-financed	1.42	100.0	-	-	1.42	100.0	0.28	0.89	0.24
Government-financed	-	-	0.49	100.0	0.49	100.0	-	0.41	0.08
Subtotal Nanning No. 4 Vocational and Technical School	1.42	74.3	0.49	25.7	1.91	100.0	0.28	1.30	0.32
b. Nanning Health School	3.45	100.0	-	-	3.45	100.0	0.69	2.17	0.59
Subtotal Equipment	4.87	90.8	0.49	9.2	5.36	100.0	0.97	3.48	0.91
3. Training Bases									
a. Kindergarten Training Base	0.12	100.0	-	-	0.12	100.0	0.02	0.08	0.02
b. Rural Training Bases	0.31	100.0	-	-	0.31	100.0	0.06	0.20	0.05
Subtotal Training Bases	0.43	100.0	-	-	0.43	100.0	0.09	0.27	0.07

Item	Asian Development Bank		Government		Total		Foreign Exchange (\$ million)	Local (Excluding Taxes) (\$ million)	Duties & Taxes (\$ million)
	Amount ^a (\$ million)	% of Financing	Amount ^a (\$ million)	% of Financing	Amount ^a (\$ million)	% Financed			
4. TVET Capacity Strengthening									
a. Nanning No. 4 Vocational and Technical School	0.73	100.0	-	-	0.73	100.0	-	0.73	-
b. Nanning Health School	0.73	100.0	-	-	0.73	100.0	-	0.73	-
Subtotal Capacity Strengthening	1.45	100.0	-	-	1.45	100.0	-	1.45	-
5. Consulting Services									
a. Nanning No. 4 Vocational and Technical School	0.69	100.0	-	-	0.69	100.0	0.03	-	-
b. Nanning Health School	0.82	100.0	-	-	0.82	100.0	0.66	-	-
Subtotal Consulting Services	1.51	100.0	-	-	1.51	100.0	0.69	-	-
Total Project Base Cost (A)	50.00	56.3	38.83	43.7	88.83	100.0	9.11	76.28	2.62
B. Contingencies^d									
1. Physical	-	-	9.38	100.0	9.38	100.0	0.90	8.48	-
2. Price	-	-	2.56	100.0	2.56	100.0	0.18	2.37	-
Total Contingencies (B)	-	-	11.94	100.0	11.94	100.0	1.09	10.85	-
C. Financial Charges During Implementation (C)^e	-	-	1.92	100.0	1.92	100.0	1.92	-	-
Total Project Cost (A+B+C)	50.00	48.7	52.69	51.3	102.69	100.0	12.11	87.13	2.62

NOTE: Numbers may not sum precisely due to rounding.

a Investment costs includes taxes and duties amounting to \$2.62 million (CNY15.99 million) to be financed by the government of the People's Republic of China and the Asian Development Bank loan, who will finance \$0.30 million and \$2.32 million, respectively. 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. Tax rate on civil works is 3.4% while for equipment the tax rate applied is 17%.

b In mid-2013 prices.

c Engineering supervision, management fees, surveys, etc. to be borne by the government.

d Physical contingencies were computed at 11% of total civil works and equipment costs for the Nanning No. 4 Vocational and Technical School and Nanning Health to match the contingency provision used in the domestic feasibility study reports as contingencies are fully finance 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 for local currency costs, these were computed at 3.5% for 2014 and 3.0% thereafter.

e Includes interest and commitment charges. Interest during construction for ADB loan was computed at the USD 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.

D. Detailed Cost Estimates by Outputs/Components

Item	Strengthened Capacity of TVET Schools		Implementation of Training Bases		Upgraded Buildings, Campus Facilities, and Equipment of TVET Schools		Effective Project Management and Implementation Arrangements		Total Cost ^a
	(\$ million)	% of Cost Category	(\$ million)	% of Cost Category	(\$ million)	% of Cost Category	(\$ million)	% of Cost Category	(\$ million)
A. Investment Costs^b									
1. Civil Works									
a. Nanning No. 4 Vocational and Technical School									
(i) Civil Works					34.16	34.5			34.16
(ii) Other Costs ^c					3.20	3.2			3.20
Subtotal Nanning No. 4 Vocational and Technical School					37.36	37.7			37.36
b. Nanning Health School									
(i) Civil Works					39.57	39.9			39.57
(ii) Other Costs ^c					3.15	3.2			3.15
Subtotal Nanning Health School					42.72	43.1			42.72
Subtotal Civil Works					80.08	80.8			80.08
2. Equipment									
a. Nanning No. 4 Vocational and Technical School					1.91	1.9			1.91
b. Nanning Health School					3.45	3.5			3.45
Subtotal Equipment					5.36	5.4			5.36
3. Training Bases									
a. Kindergarten Training Base			0.12	26.6					0.12
b. Rural Training Bases			0.31	68.7					0.31
Subtotal Training Bases			0.43	95.3					0.43
4. TVET Capacity Strengthening									
a. Nanning No. 4 Vocational and Technical School	0.73	47.7							0.73
b. Nanning Health School	0.73	47.7							0.73
Subtotal Capacity Strengthening	1.45	95.4							1.45
5. Consulting Services									

Item	Strengthened Capacity of TVET Schools		Implementation of Training Bases		Upgraded Buildings, Campus Facilities, and Equipment of TVET Schools		Effective Project Management and Implementation Arrangements		Total Cost ^a
	(\$ million)	% of Cost Category	(\$ million)	% of Cost Category	(\$ million)	% of Cost Category	(\$ million)	% of Cost Category	(\$ million)
a. Nanning No. 4 Vocational and Technical School							0.69	43.6	0.69
b. Nanning Health School							0.82	52.2	0.82
Subtotal Consulting Services							1.51	95.8	1.51
Total Project Base Cost (A)	1.45	95.4	0.43	95.3	85.44	86.2	1.51	95.8	88.83
B. Contingencies^d									
1. Physical	-	-	-	-	9.38	9.5	-	-	9.38
2. Price	0.04	2.5	0.01	2.6	2.47	2.5	0.03	2.1	2.56
Total Contingencies (B) Financial Charges During Implementation (C)^e	0.04	2.5	0.01	2.6	11.85	12.0	0.03	2.1	11.94
Total Project Cost (A+B+C)	1.52	100.0	0.45	100.0	99.14	100.0	1.57	100.0	102.69

NOTE: Numbers may not sum precisely due to rounding.

a Investment costs includes taxes and duties amounting to \$2.62 million (CNY15.99 million) to be financed by the government of the People's Republic of China and the Asian Development Bank loan, who will finance \$0.30 million and \$2.32 million, respectively. 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. Tax rate on civil works is 3.4% while for equipment the tax rate applied is 17%.

b In mid-2013 prices.

c Engineering supervision, management fees, surveys, etc. to be borne by the government.

d Physical contingencies were computed at 11% of total civil works and equipment costs for the Nanning No. 4 Vocational and Technical School and Nanning Health to match the contingency provision used in the domestic feasibility study reports as contingencies are fully finance 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 for local currency costs, these were computed at 3.5% for 2014 and 3.0% thereafter.

e Includes interest and commitment charges. Interest during construction for ADB loan was computed at the USD 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.

E. Detailed Cost Estimates by Year

Item	Year 1 (\$ million)	Year 2 (\$ million)	Year 3 (\$ million)	Year 4 (\$ million)	Year 5 (\$ million)	Total Cost ^a (\$ million)
A. Investment Costs^b						
1. Civil Works						
a. Nanning No. 4 Vocational and Technical School						
(i) Civil Works	0.85	10.50	14.26	5.12	3.42	34.16
(ii) Other Costs ^c	0.08	0.99	1.34	0.48	0.32	3.20
Subtotal Nanning No. 4 Vocational and Technical School	0.93	11.49	15.60	5.60	3.74	37.36
b. Nanning Health School						
(i) Civil Works	0.99	12.17	16.52	5.94	3.96	39.57
(ii) Other Costs ^c	0.08	0.97	1.31	0.47	0.31	3.15
Subtotal Nanning Health School	1.07	13.14	17.84	6.41	4.27	42.72
Subtotal Civil Works	2.00	24.62	33.43	12.01	8.01	80.08
2. Equipment						
a. Nanning No. 4 Vocational and Technical School	0.05	0.59	0.80	0.29	0.19	1.91
b. Nanning Health School	0.09	1.06	1.44	0.52	0.35	3.45
Subtotal Equipment	0.13	1.65	2.24	0.80	0.54	5.36
3. Training Bases						
a. Kindergarten Training Base	-	0.04	0.05	0.02	0.01	0.12
b. Rural Training Bases	-	0.11	0.12	0.05	0.03	0.31
Subtotal Training Bases	-	0.15	0.17	0.06	0.04	0.43
4. TVET Capacity Strengthening						
a. Nanning No. 4 Vocational and Technical School	0.04	0.20	0.16	0.16	0.16	0.73
b. Nanning Health School	0.04	0.20	0.16	0.16	0.16	0.73
Subtotal Capacity Strengthening	0.09	0.41	0.32	0.32	0.32	1.45
5. Consulting Services						
a. Nanning No. 4 Vocational and Technical School	0.01	0.18	0.17	0.17	0.17	0.69
b. Nanning Health School	0.01	0.21	0.20	0.20	0.20	0.82
Subtotal Consulting Services	0.03	0.39	0.36	0.36	0.36	1.51

Item	Year 1 (\$ million)	Year 2 (\$ million)	Year 3 (\$ million)	Year 4 (\$ million)	Year 5 (\$ million)	Total Cost^a (\$ million)
Total Project Base Cost (A)	2.25	27.22	36.53	13.57	9.27	88.83
B. Contingencies^d						
1. Physical	0.23	2.88	3.92	1.41	0.94	9.38
2. Price	0.08	0.78	1.05	0.39	0.26	2.56
Total Contingencies (B)	0.31	3.67	4.96	1.79	1.20	11.94
C. Financial Charges During Implementation (C)^e	0.05	0.26	0.45	0.55	0.61	1.92
Total Project Cost (A+B+C)	2.61	31.14	41.94	15.91	11.08	102.69

NOTE: Numbers may not sum precisely due to rounding.

a Investment costs includes taxes and duties amounting to \$2.62 million (CNY15.99 million) to be financed by the government of the People's Republic of China and the Asian Development Bank loan, who will finance \$0.30 million and \$2.32 million, respectively. 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. Tax rate on civil works is 3.4% while for equipment the tax rate applied is 17%.

b In mid-2013 prices.

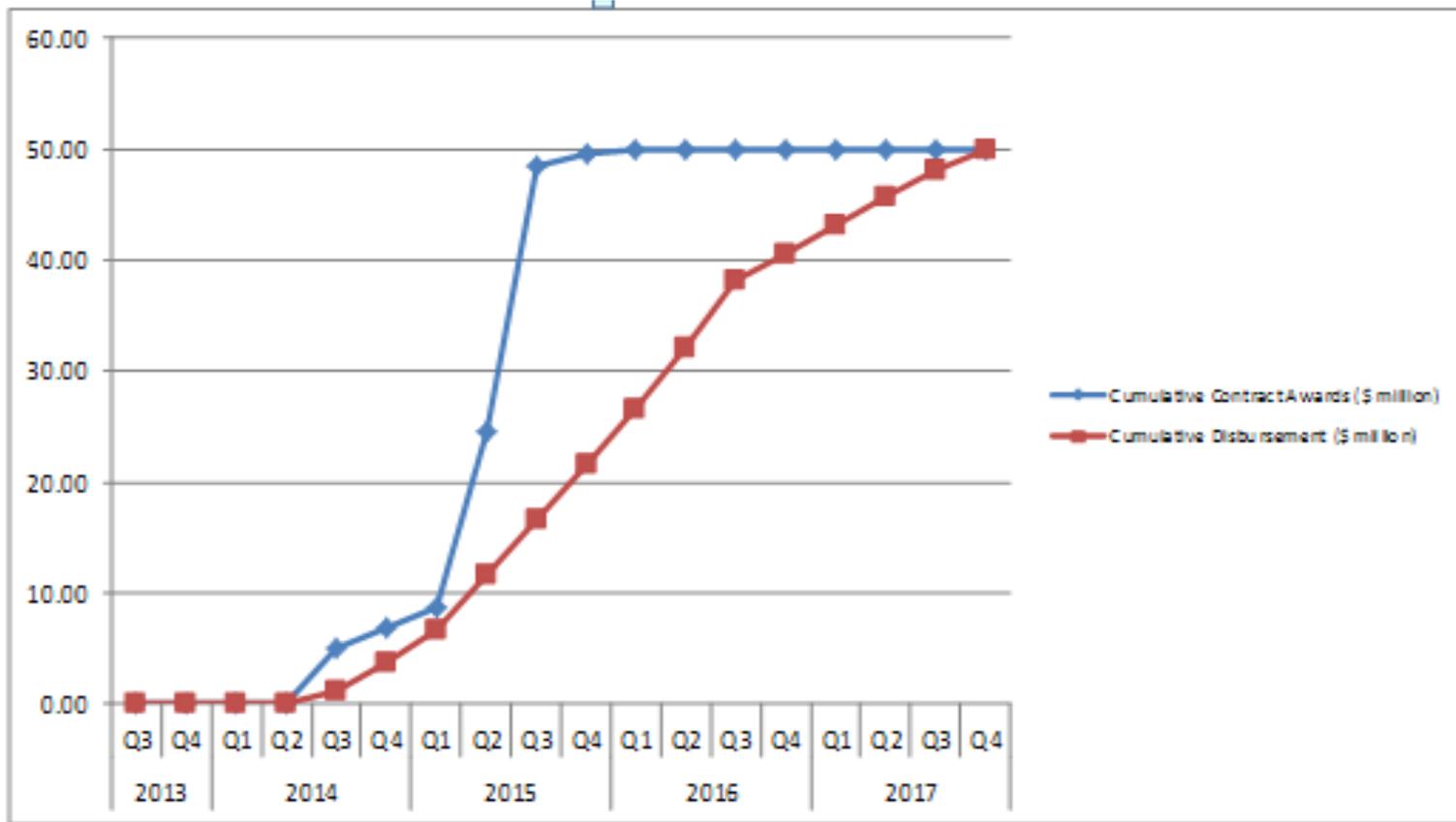
c Engineering supervision, management fees, surveys, etc. to be borne by the government.

d Physical contingencies were computed at 11% of total civil works and equipment costs for the Nanning No. 4 Vocational and Technical School and Nanning Health to match the contingency provision used in the domestic feasibility study reports as contingencies are fully finance 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 for local currency costs, these were computed at 3.5% for 2014 and 3.0% thereafter.

e Includes interest and commitment charges. Interest during construction for ADB loan was computed at the USD 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.

F. Contract and Disbursement S-curve



#		2013		2014				2015	
		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
1	Cumulative Contract Awards (\$ million)	0.00	0.00	0.00	0.00	5.00	6.93	8.73	24.55
2	Cumulative Disbursement (\$ million)	0.00	0.00	0.00	0.00	1.25	3.75	6.75	11.69

Note: The disbursement schedule exhibits the usual S-curve shape. The S-curve for contract awards exhibits an abrupt peak in the second half of 2015 due to the two large contracts for civil works at both Nanning No. 4 Vocational and Technical School and Nanning Health School.

V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

1. A financial management assessment (FMA) has been conducted for the project in accordance with Asian Development Bank's (ADB) Guidelines for the Financial Management and Analysis of Projects¹⁰ and the publication *Financial Due Diligence—A Methodology Note*.¹¹ Nanning Municipal Government (NMG) counterpart funds. Xiangsihu Investment and Development Company (XIDC) will assist the project management office (PMO), as well as Nanning Health School (NHS), Nanning No. 4 Vocational and Technical School (NVTS), and the two project implementing units in the management and administration of project funds, civil works, equipment, and consultant services.¹² Therefore, focus of the FMA was mainly on the capacity of XIDC to manage project funds (i.e., ADB loan proceeds and government counterpart funds) effectively.

2. The FMA, which was informed by the Governance and Anticorruption Action Plan II PFM assessments at the country and sector level, indicated that XIDC has extensive experience in managing foreign-financed projects and has already established a financial management system and structure, with adequate and experienced staff dedicated to the project. XIDC's accounting system is computerized, and in accordance with national accounting standards and has an established system of safeguards to protect assets from fraud, waste, and abuse. However, XIDC and the PMO will require refresher training and support on ADB policies and procedures, including procurement, disbursement, and project management. The FMA also confirmed that XIDC strictly follows established financial management policies in the People's Republic of China (PRC) and has generally a high level of financial management capability and has extensive experience in managing capital projects.

3. **Risk analysis.** A Financial Management Internal Control and Risk Management Assessment were conducted.¹³ Inherent risk was assessed as negligible to moderate in large part due to country-level risks and past ADB experiences. Control risk was also rated as negligible to moderate, due to country-level risks and based on a review of current systems and capacity. Particular weaknesses concerned a current relatively weak understanding of the financial management policies and procedures of ADB in the PMO and the implementing agencies (XIDC excepted). The analysis and mitigation measures in place or proposed are summarized in Table 1.

4. **Risk mitigation.** The actions proposed to be undertaken by the PMO and the implementing agencies before loan effectiveness include (i) clear definition and description of the responsibilities of all financial staff, and (ii) the training of financial staff in ADB procedures. The actions proposed to be undertaken during the implementation of the project include (i) close liaison among Nanning Finance Bureau, the PMO, the implementing agencies, and ADB to ensure that ADB guidelines are followed; (ii) regular interagency coordination at all levels to discuss the project implementation progress and performance; (iii) training on ADB's disbursement policies; (iv) maintenance of project accounts in accordance with the PRC Ministry of Finance guidelines for ADB financed projects and these accounts to be duly audited; (v) semiannual progress reports on

¹⁰ ADB. 2005. *Financial Management and Analysis of Projects*. Manila.

¹¹ ADB. 2009. *Financial Due Diligence A Methodology Note*. Manila.

¹² XIDC will be the main entity to undertake financial management of project funds (under the oversight of NFB) and the procurement of goods and works during project implementation. The two schools will only participate in parts of procurement activities such as endorsing technical specifications and participation in bid evaluations.

¹³ ADB. 2005. *Financial Management and Analysis of Projects*. Manila. page 24.

project implementation and performance prepared; and (vi) close monitoring of loan covenants, and compliance status, including submission of audited project accounts.

Table1: Summary Risk Assessment and Mitigation Measures

Risk	Risk Assessment*	Risk-Mitigation Measures
Inherent Risks		
1. Country-specific Risks Inadequate financial management, management, and skills capacity.	N	(i) There are sufficient resident skills, expertise, and experience in most areas for timely and successful implementation. In addition, there is a high level coordinating body in the government to systematically and critically assess directions and outcomes of the project. (ii) Training will be given to the PMO and local financial staff to familiarize them with ADB requirements.
2. Entity-specific Risks Inadequate understanding of roles of executing agency, implementing agency, and other agencies.	N	(i) A clear organizational structure of the executing agency /implementing agencies is already established in relation to the project, and separation of roles and responsibilities between parties are clear. (ii) Work plans of core activities for the executing agency/implementing agency personnel are well-developed.
3. Project-specific Risks (i) Implementing agencies lack experience with ADB projects. (ii) Some capacity building components will be partly managed by individual project TVET schools.	M	(i) Consulting support and training to be provided, including in the following areas: a. ADB disbursement procedures, and b. project accounting requirements. (ii) Detailed procedural guidance to be put in place in advance of loan effectiveness. (iii) NPMO will oversee local project activities by requiring implementing agency plans and cost estimates to be approved by them.
Overall Inherent Risk	N	
Control Risks		
4. Implementing entity's financial management policies and procedures for the project are inadequate.	M	Written financial procedures will be developed for the project and reviewed by suitably experienced GZAR officials.
5. Funds flow Weak adherence to ADB guidelines as concerns to disbursement and withdrawal of project funds by the executing agency and implementing agencies.	N	(i) Executing agency to liaise regularly with ADB to ensure that ADB guidelines are followed. (ii) Inter-agency coordination at all levels to discuss the loan disbursement performance. (iii) Separate accounts to be maintained for all project components financed by ADB and the government.
6. Staffing (i) High staff turnover and inadequate financial management skills. (ii) Implementing agency accounting staff lacks adequate understanding of ADB requirements.	M	(i) Provide thorough training on ADB's disbursement procedures and project accounting requirements. (ii) Oversight of disbursement by experienced financial staff at executing agency and GZAR level. (iii) Guidance and support from the management support consultant.
7. Accounting Policies and Procedures Account and bank reconciliations are not performed in a timely manner.	N	Qualified and trained staff will undertake account and bank reconciliations on a periodic basis. Minor weaknesses identified in the FMA will be addressed prior to the project commencing.
8. Internal audit Inadequate capacity in the Internal Audit department.	M	All implementing agencies' financial activities are routinely subject to internal audit coverage but there is scope to enhance capacity by modernizing auditing methods.
9. External audit External auditors do not perform	N	Independent external auditors acceptable to ADB will be appointed by the executing agency to audit

their functions adequately.		project accounts and compliance with financial covenants on an annual basis.
10 Reporting and monitoring Regular financial reports suitable for user needs are not prepared.	M	(i) The executing agency will make comprehensive progress reports (including financial) to ADB semiannually. (ii) Consultancy support to advise improvements needed to financial management reporting.
11. Information Systems PMO and XIDC information systems do not prove fit for purpose.	M	(i) XIDC will utilize the same systems as were successfully used during the last ADB project, (ii) PMO systems needs are relatively simple and will be developed and implemented with the support auspices of consultants.
Overall Control Risk	M	
*H-High, S=Substantial, M=Moderate, N= Negligible or Low		

ADB = Asian Development Bank, FMA = Financial Management Assessment, GZAR = Guangxi Zhuang Autonomous Region, NPMO = Nanning Education Project Management Office, PMO = project management office, TVET = technical and vocational education and training, XIDC = Xiangsihu Investment and Development Company.

5. The project implementation units (PIUs) will be responsible for implementation of the subprojects in the project TVET institutions. The PIUs will be required to adhere to sound financial management requirements during the implementation of the project. Each PIU, supported by the PMO or NFB as necessary, will be required to maintain separate project records and accounts adequate to identify the (i) goods and services financed from loan proceeds, (ii) financing resources received, (iii) expenditures incurred on the different outputs of each component, and (iv) counterpart funds received and expended.

6. **Specific action required.** The assessment indicates that action should be taken in the following areas:

1. **To be undertaken in advance of loan effectiveness**

- (i) Designate PMO (project) finance staff.
- (ii) Training on ADB disbursement procedure and ADB project accounting and financial reporting requirements to be provided.
- (iii) Complete financial policies and procedures manual to be developed by PMO in order to guide staff activities and ensure staff accountability.
- (iv) Written job descriptions for PMO and implementing agency PIU staff to be prepared or revised to take account of their project responsibilities.

2. **To be undertaken during implementation of the proposed project**

- (i) Regular liaison of the executing agency, implementing agency, and ADB to ensure that ADB guidelines are followed.
- (ii) Regular interagency coordination at all levels to be put in place to discuss the portfolio performance of the loan.
- (iii) Separate accounts to be maintained for all project outputs, whether financed by ADB or the government, and these to be audited by a qualified independent auditor or the recognized state audit agency.
- (iv) Accounting duties to be rotated, where feasible.
- (v) Annual project accounts and underlying working papers prepared on a timely basis in preparation for the annual financial statement audit.
- (vi) Prompt reporting to project stakeholders after the end of each accounting period.
- (vii) Semiannual progress reports on project implementation and operation prepared.
- (viii) Compliance with loan covenants monitored, including submission of

- audited project accounts.
- (ix) An annual training plan to be prepared and implemented for accounting staff that includes training in the following:
- a. any revised government financial regulations,
 - b. any changes in relevant ADB policies or procedures, and
 - c. the management of foreign exchange risk.

B. Disbursement

7. The loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2012, as amended from time to time),¹⁴ and detailed arrangements agreed upon between the government and ADB. Pursuant to ADB's Safeguard Policy Statement (2009), ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Annex 5 of the ADB's Safeguard Policy Statement (2009).

8. A combination of direct payment by ADB, reimbursement, and imprest fund procedures are likely to be used for disbursement of the loan. Responsibilities for different disbursement activities can be summarized, as follows: (i) the PMO will prepare project level disbursement projections based on individual projections prepared by each implementing agency; (ii) implementing agencies will be responsible for arranging counterpart financing or requesting budgetary allocations for counterpart funding, as appropriate; (iii) the implementing agencies will prepare disbursement claims and collect supporting documents, which will then be passed to PMO for review and endorsement before onward transmission to NFB, and (iv) NFB is responsible for making payments from the sub-account account it will establish, specifically for the project loan proceeds; and (v) the Guangxi Regional Finance Department (GFD) is responsible for sending loan withdrawal applications to ADB to initiate either imprest account replenishment or, where appropriate, to initiate direct payments by ADB to foreign based consultants or suppliers.

9. To facilitate project implementation through timely release of loan proceeds, GFD will establish an imprest account promptly after loan effectiveness at a commercial bank acceptable to ADB. GFD will administer the imprest account. The ceiling of the imprest account will not exceed 10% of the loan amount. The currency of the imprest account will be US Dollars (\$). The imprest account is to be used exclusively for ADB's share of eligible expenditures. GFD, who will establish the imprest account in its name, is accountable and responsible for proper use of advances to the imprest account. The government may request for initial and additional advances to the imprest account based on 6 months of estimated expenditures to be financed through the imprest account. The imprest account will be established, managed, and liquidated in accordance with ADB's *Loan Disbursement Handbook* and detailed arrangements agreed by the government and ADB. ADB's *Loan Disbursement Handbook* describes which supporting documents should be submitted to ADB and which should be retained by the government for liquidation and replenishment of an imprest account.

10. A separate sub-account will be established and maintained by Nanning Municipal Finance Bureau on behalf of NMG for each funding source. The sub-account is to be used exclusively for ADB's share of eligible expenditures. Supporting documents should be submitted to ADB or retained by the borrower in accordance with ADB's *Loan Disbursement Handbook* when liquidating or replenishing the sub-account.

11. To expedite funds flow and simplify the documentation process, the ADB statement-of-expenditure (SOE) procedure will be used for liquidation and replenishment of the imprest account, and for reimbursement of eligible expenditures not exceeding

¹⁴ Available at: [http://www.org/Documents/Handbooks/Loan Disbursement/ loan-disbursement-final.pdf](http://www.org/Documents/Handbooks/Loan%20Disbursement/loan-disbursement-final.pdf)

\$100,000 equivalent per individual payment. The payments in excess of the SOE ceiling will be reimbursed, liquidated, or replenished based on full supporting documentation. SOE records should be maintained and made readily available for review by ADB's disbursement and review mission or upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit.¹⁵

12. Before the submission of the first withdrawal application, the borrower should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the borrower, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is \$100,000 equivalent under reimbursement and imprest fund procedures, unless otherwise approved by ADB. The borrower is to consolidate claims to meet this limit for reimbursement and imprest account claims. Withdrawal applications and supporting documents will demonstrate, among other things that the goods, and/or services were produced in or from ADB member countries, and are eligible for ADB financing.

13. No withdrawals shall be made from the Loan Account in respect of training activities under the TVET Capacity Strengthening Output until ADB shall have received and approved the Training Implementation Plan.

14. Counterpart funds will be disbursed in accordance with normal local government budgetary and related financial procedures. Where counterpart funding is being provided by NFB, then the XIDC will make (via the PMO) a disbursement claim NFB. A combination of reimbursement and commitment, based disbursement will be used depending on the amounts involved and local circumstances. Detailed procedures will vary slightly depending on detailed local procedures that are adopted for disbursing government funds.

C. Accounting

15. The NMG will maintain, or cause XIDC, NHS, and NVTs to maintain and separate project financial statements and records by funding sources for all expenditures incurred on the project. NMG will prepare consolidated project accounts in accordance with the government's accounting laws and regulations, and financial reporting standards acceptable to ADB.

D. Auditing

16. The NMG will cause the detailed consolidated project financial statements to be audited in accordance with International Standards on Auditing and with the Government's audit regulations, by an independent auditor acceptable to ADB. The audited project financial statements will be submitted in the English language to ADB within 6 months of the end of the fiscal year by PMO.

16. The NMG will submit to ADB, in the English language, within 6 months of the end of the fiscal year, an audit report which includes audit opinions on (i) whether the financial statements are presented fairly, in all material respects, in accordance with the applicable financial reporting framework, (ii) whether loan was used only for the purposes of the project or not; (iii) use of the imprest fund procedure; and (iv) the use of the statement of

¹⁵ Checklist for SOE procedures and formats are available at:
http://www.adb.org/documents/handbooks/loan_disbursement/chap-09.pdf
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Contracts-100-Below.xls
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Contracts-Over-100.xls
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Operating-Costs.xls
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Free-Format.xls

expenditure procedure certifying to the eligibility of those expenditures claimed under SOE procedures, and proper use of the SOE and imprest procedures in accordance with ADB's Loan Disbursement Handbook and the project documents.

17. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal program supervision, and followed up regularly with all concerned, including the external auditor.

18. The government and NMG have been made aware of ADB's policy on delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.¹⁶ ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the recipient, or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

19. Public disclosure of the project financial statements, including the audit report on the project financial statements, will be guided by ADB's Public Communications Policy (2011).¹⁷ After review, ADB will disclose the project financial statements for the project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website. The Audit Management Letter will not be disclosed.

¹⁶ ADB Policy on delayed submission of audited project financial statements:

- (i) When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (i) the audit documents are overdue; and (ii) if they are not received within the next 6 months, requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.
- (ii) When audited project financial statements have not been received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement and issuance of new commitment letters. ADB will (i) inform the executing agency of ADB's actions; and (ii) advise that the loan may be suspended if the audit documents are not received within the next 6 months.
- (iii) When audited project financial statements have not been received within 12 months after the due date, ADB may suspend the loan.

¹⁷ Available from <http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications>

VI. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting and Retroactive Financing

1. All advance contracting and retroactive financing will be undertaken in conformity with the Asian Development Bank's (ADB) Procurement Guidelines (2013, as amended from time to time)¹⁸ and ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).¹⁹ The issuance of invitations to bid under advance contracting and retroactive financing will be subject to ADB approval. The borrower, the executing agency, and implementing agencies have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the project. In addition, the Nanning Municipal Government (NMG), project management office (PMO), and the implementing agencies have also been advised where advance contracting is approved, then ADB's approval must be sought for the draft prequalification and bidding documents before they are issued.

2. To expedite project implementation, the government requested ADB to approve advance contracting and retroactive financing, which includes the recruitment of consultants and works contracts. Use of retroactive financing of eligible expenditures will be restricted to 20% of the loan, although currently it is estimated the retroactive financing approved by ADB will only commit 13% of the loan. When undertaking implementation activities under the ADB retro-active financing facility it is the responsibility of the executing agency (i.e., NMG) to ensure that all relevant aspects of the ADB safeguards policy statement and project specific safeguard plans are adhered to in full.

3. Advance contracting will include (i) tendering, and bid evaluation for civil works packages; (ii) preparation of tender documents for the procurement of materials and equipment; and (iii) recruitment of consultants. The issuance of invitations to bid under advance contracting, bidding documents and bid evaluation reports will be subject to ADB approval. Four civil works contracts and two consulting service contracts will be procured through advance contracting. In preparing the bidding documents under the advance contracting arrangement, NMG via the PMO must ensure that the provisions of all loan assurances agreed at loan fact-finding (or as modified at loan negotiations) are incorporated in their latest form. These assurances include monitoring and reporting requirements placed on contractors, compliance with labor laws and regulations, specific environmental management plan (EMP), social action plan (SAP), and gender action plan (GAP) measures, etc.

B. Procurement of Goods, Works, and Consulting Services

4. All procurement of goods and works will be undertaken in accordance with ADB's procurement guidelines. XIDC will be the main entity designated to undertake the whole process of procurement of goods and services during project implementation. NHS and NVTs will only participate in parts of the procurement activities, such as technical specification requirements and bidding evaluation, or in small scale procurement relating to TVET strengthening activities.

5. Assessment of the capacity of XIDC to procure the goods, works, and consulting services has been conducted, and the major findings and recommendations to be made on actions required to overcome weakness have been documented and incorporated into the project design and safeguards measures. Based on the assessments made, planned capacity building measures, and the previous procurement record of XIDC, it is concluded

¹⁸ Available at: <http://www.adb.org/Documents/Guidelines/Procurement/Guidelines-Procurement.pdf>

¹⁹ Available at: <http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf>

that procurement capacity is adequate to facilitate full compliance with ADB procurement guidelines, and the risk of misprocurement is acceptably low.

6. International competitive bidding procedures will be used for civil works contracts estimated to exceed \$10 million, and supply contracts estimated to exceed \$1 million. Contracts for goods and for works estimated to cost less than the above international competitive bidding threshold values, but more than \$100,000 for goods and \$100,000 for works, will be procured on the basis of national competitive bidding procedures in accordance with the People's Republic of China (PRC) Tendering and Bidding Law (1999), subject to modifications agreed upon with ADB. Shopping will be used for contracts for procurement of works and equipment worth less than \$100,000.

7. An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and national competitive bidding guidelines are in Section C.

8. All consultants will be recruited according to ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).²⁰ The terms of reference for all consulting services are outlined in Section D and detailed in full in Annex 10.

9. An estimated 125 person-months (29 international and 96 national) of consulting services are required to (i) facilitate effective project management and implementation, and (ii) strengthen the quality and management of TVET in the project TVET institutions and Nanning Municipality generally. Depending on the estimated value and nature of the consultancy, consulting firms will be engaged using one of the consultant qualified selection process, and the quality- and cost-based selection method with a standard quality: cost ratio of 80:20. Under quality- and cost-based selection, a full technical proposal will be required for the bidding.

10. Whenever "green procurement" for the civil works packages or equipment is used this term relates to the PRC's green procurement regulations and guidelines. Where there is any conflict between the PRC green procurement regulations and ADB procurement guidelines the requirements of the latter are to prevail. However, such conflict is not foreseen.

C. Procurement Plan

Basic Data

Project Name: Guangxi Nanning Vocational Education Development Project	
Country: People's Republic of China	Executing Agency: Nanning Municipal Government
Loan Amount: \$50,000,000	Loan (Grant) Number: xxx
Date of First Procurement Plan: 30 June 2013	Date of this Procurement Plan: 30 June 2013

1. Process Thresholds, Review, and 18-Month Procurement Plan

a. Project Procurement Thresholds

11. Except as ADB may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

²⁰ Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: <http://www.adb.org/documents/handbooks/project-implementation/>

Procurement of Goods and Works

Method	Threshold
ICB for Works	\$10 million or more
ICB for Goods	\$1 million or more
NCB for Works	Below \$10 million but more than \$100,000
NCB for Goods	Below \$1 million but more than \$100,000
Shopping for Works	\$100,000 or below
Shopping for Goods	\$100,000 or below

ICB = international competitive bidding, NCB = national competitive bidding

b. ADB Prior or Post Review

12. Except as ADB may otherwise agree, the following prior or post review requirements apply to the various procurement and consultant recruitment methods used for the project.

Procurement Method	Prior or Post	Comments
Procurement of Goods and Works		
ICB Works	Prior	
ICB Goods	Prior	
NCB Works	Prior	
NCB Goods	Post	See note 1
Shopping for Works	Post	
Shopping for Goods	Post	
Recruitment of Consulting Firms		
QCBS	Prior	
CQS	Prior	
Recruitment of Individual Consultants		
Individual Consultant selection	Prior	

CQS = Consultant Qualified Selection, ICB = international competitive bidding, NCB = national competitive bidding, QCBS = quality- and cost-based selection.

Note: 1. The first set of procurement documents will be subject to ADB prior review and approval.

c. Goods and Works Contracts Estimated to Cost More Than \$1 Million

13. The following table lists goods and works contracts for which procurement activity is either ongoing or expected to commence within the next 18 months (ending at Quarter 4 of 2014).

Ref. No.	General Description	Contract Value (\$ Million)	Procurement Method	Prequalification of Bidders (y/n)	Advertisement Date (Quarter/year)	ADB Review
NHS						
Works						
CH-01	A3 and A4 Teaching Buildings	\$3.16	NCB ¹	N	Q4/2013	Prior
CH-02	Experimental Building, Library & Administration Building, and Site Work	\$36.42	ICB ²	N	Q1/2014	Prior
Goods						
EH-03	Broadcast, Lighting, Sound and Video System	\$1.42	ICB	N	Q3/2014	Prior
N4VS						
Works						
CT-01	No. 2 Teaching Building,	\$8.211	NCB ¹	N	Q4/2013	Prior

Ref. No.	General Description	Contract Value (\$ Million)	Procurement Method	Prequalification of Bidders (y/n)	Advertisement Date (Quarter/year)	ADB Review
	Experimental and Training Building, Trainee Dormitory, Teacher Use Building and Kindergarten					
CT-02	Gymnasium, Art Building, #3-6 Dormitory, Library, Landscaping Training Base and Site Works	\$25.829	ICB ²	N	Q2/2014	Prior

Notes:

- To be implemented under retroactive financing
- Will utilize advance procurement action
- All contract will be advertised in the Asia Development Bank Business Opportunities

d. Consulting Services Contracts Estimated to Cost More Than \$100,000

14. The following table lists consulting services contracts for which procurement activity is either ongoing or expected to commence within the next 18 months (ending at Quarter 4 of 2014)

Ref. No.	General Description	Contract Value (\$million)	Recruitment Method	Advertisement Date (quarter/year)	International or National Assignment	Comments	ADB Review
CS-01	TVET and Project Management Capacity Building	\$1.86	QCBS	Q4/2013	International	Full technical proposal, Advance contracting	Prior

e. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000

15. The following table groups smaller-value goods, works, and consulting services contracts for which procurement activity is either ongoing or expected to commence within the next 18 months (ending at Quarter 4 of 2014). Descriptions of the individual contracts can be found in Annex 10.

General Description	Value of Contracts (cumulative) (\$'000)	Number of Contracts	Procurement / Recruitment Method	Comments
NVTS				
1. Goods	1312	4	NCB	
2. Small scale goods	228	3	Shopping	
NHS				
1. Goods	2254	4	NCB	
2. Small Scale Goods	90	1	Shopping	
Support to PMO & XIDC				
1. Start-up Consulting	50	1	ICS	

General Description	Value of Contracts (cumulative) (\$'000)	Number of Contracts	Procurement / Recruitment Method	Comments
TVET Research				
1. Research Studies	100	2	CQS	

CQS= consultant qualified selection, ICS = individual consultant selection, NCB = national competitive bidding, NHS = Nanning Health School, NVTS = Nanning No. 4 Vocational and Technical School, PMO = project management office, TVET = technical and vocational education and training XIDC = Xiangsihu Investment and Development Company.

Note: The research studies are pieces of work needed to investigate in depth specific issues such as the projected growth of elderly care services and implications for TVET provision. These studies would likely be undertaken by a local university or similar institution.

2. Indicative List of Packages Required Under the Project

16. The following table provides an indicative list of all procurement (goods, works and consulting services) over the life of the project.

General Description	Estimated Value (Cumulative \$ million)	Estimated Number of Contracts	Procurement Method	Domestic Preference Applicable
Goods	1.42	1	ICB	N
	3.57	8	NCB	N
	0.32	4	Shopping	-
	0.05	1	NBF	-
Sub-Total Goods	5.36	14		
Works	62.25	2	ICB	N
	11.37	2	NCB	N
	0.11	1	NBF	
Sub-total Works	73.73	5		
Consulting				
Start-up consultant	0.05	1	ICS	
Project Management and Capacity Building	1.86	1	QCBS	
Training and Partnerships	0.952	TBD(*)	TBD	
	0.10	2	CQS	
Total Consulting	2.96	5		
Overall Total	80.70	24		

BTP = bio data technical proposal, CQS = consultant qualified selection, FTP = full technical proposal, ICB = international competitive bidding, ICS = individual consultant selection; NBF = non-bank financed, NCB = national competitive bidding, QCBS = quality and cost-based selection, STP = short technical proposal, tbd = to be determined.

* The procurement methods and number of contracts will be determined during implementation

17. The modalities for the delivery of services related to school training and partnerships estimated at \$952,000 will be finalized during implementation. It is anticipated that the services will be delivered in a number of smaller packages. The procurement arrangements for these activities will be determined according to the needs of project implementation.

3. National Competitive Bidding

18. The Borrower's Law of Tendering and Bidding of the People's Republic of China promulgated by Order No. 21 of the President of the PRC on 30 August 1999 are subject to the following clarifications required for compliance with the guidelines:

- (i) All invitations to prequalify or to bid shall be advertised in the national press, or official gazette, or a free and open access website in the Borrower's country. Such advertisement shall be made in sufficient time for prospective bidders to obtain prequalification or bidding documents and prepare and submit their responses. In any event, a minimum preparation

period of 30 days shall be given. The preparation period shall count (a) from the date of advertisement, or (b) when the documents are available for issue, whichever date is later. The advertisement and the prequalification and bidding documents shall specify the deadline for such submission.

- (ii) Qualification requirements of bidders and the method of evaluating the qualification of each bidder shall be specified in detail in the bidding documents, and in the prequalification documents if the bidding is preceded by a prequalification process.
- (iii) If bidding is preceded by a prequalification process, all bidders that meet the qualification criteria set out in the prequalification document shall be allowed to bid and there shall be no limit on the number of prequalified bidders.
- (iv) All bidders shall be required to provide a performance security in an amount sufficient to protect the Borrower and/or the executing agency in case of breach of contract by the contractor, and the bidding documents shall specify the required form and amount of such performance security.
- (v) Bidders shall be allowed to submit bids by mail or by hand.
- (vi) All bids shall be opened in public; all bidders shall be afforded an opportunity to be present (either in person or through their representatives) at the time of bid opening, but bidders shall not be required to be present at the bid opening.
- (vii) All bid evaluation criteria shall be disclosed in the bidding documents and quantified in monetary terms or expressed in the form of pass/fail requirements.
- (viii) No bid may be rejected solely on the basis that the bid price falls outside any standard contract estimate, or margin or bracket of average bids established by the Borrower and/or the executing agency.
- (ix) Each contract shall be awarded to the lowest evaluated responsive bidder, that is, the bidder who meets the appropriate standards of capability and resources and whose bid has been determined (a) to be substantially responsive to the bidding documents, and (b) to offer the lowest evaluated cost. The winning bidder shall not be required, as a condition of award, to undertake responsibilities for work not stipulated in the bidding documents or otherwise to modify the bid as originally submitted.
- (x) Each contract financed with the proceeds of the Loan shall provide that the suppliers and contractors shall permit ADB, at its request, to inspect their accounts and records relating to the performance of the contract and to have said accounts and records audited by auditors appointed by ADB.
- (xi) Government-owned enterprises in the Borrower's country may be permitted to bid if they can establish that they (a) are legally and financially autonomous, (b) operate under commercial law and (c) are not a dependent agency of the Borrower and/or the executing agency.
- (xii) Re-bidding shall not be allowed solely because the number of bids is less than three (3).

D. Consultant's Inputs, Budgets, and Terms of Reference

19. A full term of reference for all consulting work is in Annex 10. In this section a summary of total consulting inputs is provided over the different project outputs, together with outline details and budgets for each of the two already identified consulting services contracts.

Overall Summary of Consulting Inputs by Project Output²¹

Experts Inputs	Person-months	
	International	National
Output 1: Improved quality and management of TVET system		
Team leader (see note)	5	
Deputy team leader (TVET)		12
CBC development training specialists	4	9
NHS content specialist interpersonal communication		1
NHS content specialist nursing occupational risk management		1
NHS content specialist elderly dental care		1
NVTS kindergarten content specialist		6
Teacher-learning methods, training, and materials development	4	6
Elderly care curriculum development and training specialists	3	8
Subtotal Output 1	16	44
Output 2: Implementation of Training Bases		
Team leader (see note)	2	
Kindergarten training base experts	2	6
Rural doctors training base experts	2	6
Subtotal Output 2	6	12
Output 4: Project management support established		
Team leader (see note)	3	
Deputy team leader (project management)		12
Start-up consultant		5
Monitoring and evaluation experts	2	6
Financial management specialist		6
Social, poverty, and gender expert		6
Environmental experts	2	5
Subtotal Output 4	7	40
Overall Total	29	96

NHS = Nanning Health School, NVTS = Nanning No. 4 Vocational and Technical School, TVET = technical and vocational education and training.

a. Main Package: Technical and Vocational Education and Training Capacity Building and Project Management Support

20. There are two distinct parts to this consulting package but cross –cutting themes in the areas of project monitoring and evaluation, and in ensuring equitable access so that other social objectives are achieved.

(i) Part I: TVET Capacity Building and Development of Training Bases

21. The objective of this part of the package is to support the NHS, NMG, and NVTS in the improvement of the quality of TVET within Nanning Municipality. The TVET consultants will work predominantly with NHS and NVTS, but also with the PMO and other relevant stakeholders, providing advice, assistance, and necessary training to support improvements in the quality of formal TVET:

- (i) Strengthening and/or development of core curriculum standards and competency-based curriculum for nurse education, elderly care, rural doctors' education and kindergarten teacher education, and incorporating employability and entrepreneurship skills in curriculum modules.
- (ii) Strengthening and/or development of curriculum and teaching and learning materials.
- (iii) Strengthening and/or development of vocational instructor skills through short term and an in-service training programs.
- (iv) Developing programs to maximize TVET management capacity including setting up of partnership programs nationally and internationally.

²¹ Excludes \$100k allocated for research studies which will form part of output 1.

22. The consultants will also support NHS and NVTS in the following tasks:
- (i) strengthening partnerships between employers and TVET institutions to improve system quality and responsiveness;
 - (ii) improving industry advisory groups for nurse education, nurse education for the elderly, rural doctors education and kindergarten teacher education; and
 - (iii) enhancing TVET policy research by providing inputs to the policy studies in strategic areas of elderly care and in-service and pre-service kindergarten teacher-training.
23. Support will be given to the Nanning Education Bureau, Nanning Health Bureau, NHS, NVTS, and the PMO in the improvement of educational leadership and management through:
- (i) provision of leadership training in curriculum, teaching-learning methods, assessment, monitoring and mentoring, assessment, community relations, industry relations, and educational leadership methods; and
 - (ii) overseas short-term training in educational leadership and management through study tours to overseas TVET institutions, TVET authorities, Industry training facilities, and program providers.
24. The consultants will provide support for two model training bases, for kindergarten and rural health training. For the **kindergarten** training base, the consultants will assist the NVTS to:
- (i) develop a pedagogical and physical training base for kindergarten teachers based on 'best' national and international practices;
 - (ii) monitor and evaluate pedagogical processes and approaches adopted by the model kindergarten;
 - (iii) conduct action research with NVTS students, teachers and partner institutions;
 - (iv) disseminate information and findings to other institutions, authorities and society; and
 - (v) develop plans and strategies for financial, human, and physical sustainability.
25. For the **rural health training base(s)**, the consultants will assist the NHS to:
- (i) select suitable site(s) for the location of rural health base(s);
 - (ii) develop a pilot curriculum for nurse and rural doctor training, including delivery modes, assessment methods, and syllabus;
 - (iii) develop a pedagogical (training) and physical (facilities) model for rural health base(s) in line with 'best' national and international practices;
 - (iv) monitor and evaluate training processes and approaches adopted by the rural health bases;
 - (v) monitor and evaluate clinical processes and approaches adopted by the rural health base(s);
 - (vi) conduct a comparative analysis of strength and weaknesses of existing training program(s) and piloted training program; and
 - (vii) prepare and disseminate good practice material(s) regarding the pilot rural health training base(s).

(ii) Part II: Project Management Support

26. The objective of this part of the assignment is to ensure that the PMO and the XIDC have access to relevant advice and expertise to ensure the project is implemented smoothly and in a manner that is fully compliant with ADB policies, procedures and

guideline. The consultant team will work primarily with the PMO and XIDC providing advice, assistance and necessary training on the following:

- (i) Development and periodic updating of comprehensive project implementation plans.
- (ii) Introduction of document control and project management systems for the project, with particular attention paid to procedures for monitoring and control of project progress against implementation plans.
- (iii) Development of procedures and formats for the reporting of project progress to the ADB, including the procurement plan, construction progress, withdrawal of funds and payment to contractors and suppliers and the implementation of action plans necessary to facilitate compliance with the ADB Safeguards Policy Statement (2009) and specific loan assurances contained in the project legal documents.
- (iv) Development of effective engineering design and construction supervision systems to facilitate adherence to quality standards and completion targets.
- (v) Procurement advice and support as may be needed to fill any gaps in experience or know-how on the part of XIDC, PMO, and the appointed procurement agent (tendering company).
- (vi) Advice and training on the establishment and operation of project accounting and disbursement procedures.
- (vii) Advice and training on project financial controls, reporting and audit.
- (viii) Establishment of a project performance monitoring system (PPMS), including its detailed design, data collection and analysis procedures, and the provision of training in its use. In order to avoid duplication of resources the outcome of this work should as far as possible be compatible with the PRC Ministry of Finance project reporting system as well as related local information gathering and reporting systems.
- (ix) Provide support for the implementation of the environmental management plan (EMP), including updating of project EMP, providing training on EMP implementation, reporting and GRM to PMO, implementing agencies and implementing units, developing and submitting environmental monitoring and EMP progress reports to ADB with quality acceptable to ADB on annual basis during project implementation.
- (x) Provide advice and training to NHS and NVTS in defining green campus policy and establishing campus environmental management system (EMS), organize national study tour to one member of the China Green Campus Network.
- (xi) Provide specific advice, support and training on the implementation of the social and gender action plans, including ethnic minority measures, as required and general advice and reinforcement training needed by each TVET institutions on making their programs more socially inclusive and accessible.
- (xiii) Conduct baseline and completion monitoring report studies.

Inputs and Outline Budget

Item	Amount (\$)
1. Consultants	
a. Remuneration and per diem	
i. International consultants (29 person-months)	542,000
ii. National consultants (96 person-months at \$6,000 per month)	594,000
2. Training Workshops in Nanning	50,000
3. Survey and data collection	20,000
4. Travel (international, national, & local)	67,100

Item	Amount (\$)
5. Office administration and operation (office equipment)	183,000
6. Learning Resources Development (provisional sum)	132,000
7. Conference(provisional sum)	100,000
8. Domestic and Overseas training (provisional sum)	170,000
Total	1,858,100

Source: Asian Development Bank estimates.

Notes

1. The development of learning resources relates to the process of creating learning materials and teaching guides necessary to institutionalize the new curricula developed under the project.
2. At least one conference is envisaged to discuss how to promote cooperation with ASEAN in the development of TVET.
3. PMO and XIDC domestic and overseas training is to support other capacity building carried out in Nanning by providing selective training within the PRC and perhaps overseas on best practices.

b. Start-Up Consulting

27. This will be an individual consultant engaged for a total of up to 5 months in the period before loan effectiveness and the mobilization of the main consulting company. Within a budget of \$50,000, this consultant will provide training, advice, and support in the areas of (i) procurement, including the selection of the consulting firm; (ii) disbursement arrangements; (iii) project management systems and procedures; and (iv) financial record-keeping and accounting arrangements. Full terms of reference for this consultant are in Appendix 7.

E. Research Studies

28. Two policy research studies will be conducted. The topics will be (i) an in-depth assessment of elderly care in Nanning Municipality and Guangxi Zhuang Autonomous Region. The topic will be focused on solutions for improving elderly care availability in a rapidly aging society and countermeasures studies—a case study in Nanning City of Guangxi. The study will focus on needs, constraints, impacts on health services and labor market, and the role of TVET providers in creating a supply of qualified graduates; (ii) creation of a training system for in-service and pre-service kindergarten teachers. The study will focus on objectives and methods for pre-service training and on-the-job training for teachers—a case study in NVTs. This study will build on the frameworks to be designed for NVTs, and design a training system, which can be applied in Nanning Municipality and Guangxi Zhuang Autonomous Region to address (a) in-service training needs for existing kindergarten teachers who are currently uncertified, (b) continuing professional development for kindergarten teachers to ensure that the changes anticipated by reform at the national level of the kindergarten curriculum and approaches are truly adopted, and (c) pre-service training for kindergarten teachers to ensure that reforms in curriculum and pedagogy are fully understood and adopted.

29. There are no consulting inputs specified for these contracts, which are intended to be lump sum. It is intended that CQS will be used to invite appropriately qualified institutes to submit proposals for the work required and a budget ceiling of \$100,000 will be indicated.

F. Schools Training and Partnerships

30. It is envisaged that each school will enter into at least one national and one international partnership involving mutually beneficial cooperation and exchanges. The total budget for this activity is \$292,000

31. Schools training will involve national and international study tours to view best practices in order to expose as many teachers, school managers and education administrators as possible to new methodologies. Selection criteria satisfactory to ADB will be used to ensure that the training programs will be inclusive and that participants are involved in (i) project implementation and/or (ii) associated policy development and/or (iii) related TVET development activities. The executing agency will present a training plan and selection criteria to ADB within 6 months of the commencement of project implementation. The total budget for this activity is \$660,000

VII. SAFEGUARDS

A. Environment

1. **Environment due diligence.** The project is classified as category B for environment. An initial environment examination (IEE) including environmental management plan (EMP) was prepared and disclosed on the ADB website on 15 July 2013. The IEE complies with ADB's Safeguard Policy Statement (SPS, 2009).²² The IEE concludes that the project's anticipated environmental impacts can be mitigated through the implementation of the EMP. The EMP, included as Appendix 2, defines mitigation measures, monitoring requirements, and institutional responsibilities to ensure proper environmental management throughout the project construction and operation. Environmental management is supported by loan covenants and capacity development and institutional strengthening activities under the project. Environmental and social safeguard complaints or disputes will be handled in accordance with the grievance redress mechanism established for the project.

2. **Anticipated impacts.** During construction of new buildings and facilities on existing school campuses, some environmental impacts are anticipated including noise, fugitive dust, solid 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 and implementation of construction phase community and occupational health and safety plans. During operation, no major environmental impacts are anticipated. The project will address health, safety and environmental issues related to the operation of the facilities by providing support to Nanning Health School (NHS) and Nanning No. 4 Vocational and Technical School (NVTs) for developing and implementing a green campus policy, including the establishment of an environment management system (EMS).

3. **Environmental management plan implementation arrangements.** The project management office (PMO) will have the overall responsibility for supervising the implementation of the EMP, coordinating the project level Grievance Redress Mechanism (GRM) and reporting to ADB. The PMO will assign one safeguards officer (PMO-SO) to supervise the effective implementation of the EMP. To ensure that the contractors comply with the EMP provisions, the PMO-SO will prepare and provide the following specification clauses for incorporation into the bidding documents: (i) a list of environmental management requirements to be budgeted by the bidders in their proposals; (ii) environmental clauses for contractual terms and conditions; and (iii) major items in the IEE and EMP. In addition, the PMO-SO will prepare annual environment monitoring and EMP progress reports in English, and submit them to ADB for appraisal and disclosure. Construction Contractors will be responsible for implementing the mitigation measures during construction. In their bids, contractors will be required to respond to the environmental management requirements defined in the EMP. Each contractor will be required to develop site-EMPs and will assign a person responsible for environment, health, and safety. Xiangsihu Investment and Development Company (XIDC) will assume day-to-day responsibility for supervising the contractors' performance and adherence to the EMP. XIDC will appoint one environment specialist to (i) review and approve contractors' site-specific EMP; (ii) conduct site inspections following the site inspection checklist (as appended to the EMP); (iii) organize periodic environmental monitoring in compliance with the monitoring plan defined in the EMP²³ and submit to ADB the annual environmental monitoring reports including during operations until the project completion

²² ADB. 2009. *Safeguard Policy Statement*. Manila

²³ The municipal environmental monitoring station (under the municipal environmental protection bureau) will be contracted to conduct environment impact monitoring (noise, air).

report; (iv) act as local entry point for environmental complaints under the project GRM; (v) assess the contractors' compliance with the EMP and the People's Republic of China (PRC) environmental quality standards for ambient air and noise quality; and (vi) submit semiannual inspection and monitoring results to the contractors for information, and to the implementation agencies, and PMO for verification and confirmation. Where works are being implemented using retroactive financing or advance contracting arrangements then the Nanning Municipal Government (NMG), via the PMO need to ensure the above requirements are adhered to from the outset.

B. Involuntary Resettlement

4. The safeguard category for involuntary resettlement is C. As currently planned, the project activities will neither require land acquisition nor resettlement. Should this situation change then ADB must be advised immediately and the requirements of the ADB safeguards policy for involuntary resettlement adhered to in full as advised by ADB. All civil works at NVTs will take place on the existing campus and no land acquisition or resettlement is necessary. During project preparation resettlement due diligence was performed in relation to earlier resettlement and land acquisition on the new campus for NHS. This due diligence revealed no outstanding issues.

C. Indigenous Peoples

5. The safeguard category for Indigenous Peoples is B. The poverty and social assessment found there will be no negative impacts on ethnic minority communities surrounding the technology and vocational education and training (TVET) institutions or students and staff at the project schools. Ethnic minorities make up more than half of the student and staff population of NHS and NVTs with the majority coming from the Zhuang ethnic minority particularly as the majority of students come from rural areas. Furthermore, the majority of the end beneficiaries (i.e., students in kindergartens and rural people seeking health services) are ethnic minorities. The poverty and social assessment and consultations have determined that there are government policies for ethnic minority groups for admissions to TVET education including specific subsidies to ensure affordability and access. Ethnic minority students in the project institutions will benefit equally from project investments in increased quality and relevance of TVET and improved school environments.

6. As per para. 17 SR3²⁴ of the SPS, the project has included measures in the overall project design in lieu of preparing a separate indigenous peoples plan (IPP). An analysis of the issues,²⁵ consultations with staff, students, and other stakeholders, such as the Ethnic Minority Affairs Bureau from investigation during poverty and social assessment has been prepared and recommended actions integrated into project design. Key findings include (i) preferential policies for ethnic minority and rural students provide adequate financial support for attending TVET schools, (ii) the composition of student and staff ethnic minority representation is the same as in the broader society, (iii) both schools seek to further improve rural student and ethnic minority enrollment, and (iv) there is an understanding that integration of ethnic minority culture into the curriculum is desirable. Since many end beneficiaries are ethnic minorities, it is important to have service providers who understand cultural needs and language to deliver services in a culturally

²⁴ "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 IPP could be included in the overall project design in lieu of preparing a separate IPP. In such cases, the project document will include a summary of about how the project complies with Indigenous Peoples safeguards. In particular, it will explain how the requirements for meaningful consultation are fulfilled and how the accrual of benefits has been integrated into the project design."

²⁵ See Appendix 3.

appropriate and effective manner (i.e., care giving, teaching children) and to strengthen and instill cultural dignity in these minority groups. Design elements to ensure ethnic minority inclusion are included in several of the TVET capacity building components. Specific actions incorporated into the social action plan include (i) curriculum development: development of curriculum and materials to highlight ethnic minority culture and history for kindergarten teachers. These materials will also be used in the kindergarten training base; (ii) elderly care curriculum development: a report on social inclusion and ethnic minority issues in elderly care will be prepared by the relevant consultants as input to the curriculum design; (iii) social indicators, including ethnicity, will be included in monitoring tools, such as project performance monitoring system (PPMS) and tracer studies; and (iv) a social specialist with expertise in ethnic minority issues will be part of the project management consultant team. The actions are a part of the SAP and will be monitored through the PPMS and regular reporting.

VIII. GENDER AND SOCIAL DIMENSIONS

A. Summary

1. A social, poverty, and gender analysis was undertaken in accordance with the Asian Development Bank (ADB) guidelines. The project is expected to create positive social benefits through improvements in the quality and relevance of technical and vocational education and training (TVET).
2. **Design features.** The project will implement the following:
 - (i) **Social and gender action plans.** The social action plan (SAP) and gender action plan (GAP) include measures to address social and gender concerns and opportunities for inclusive development in all project components and capacity building. The SAP is in **Table 1** below and the GAP in **Table 2**. No additional budget is necessary for the actions, which are covered in the design of the project. National consultant inputs of 6 person-months are in the budget to guide and support the executing agency, implementing agencies and TVET consultants in implementing and monitoring the measures.
 - (ii) Two studies will be conducted under the project to improve planning for TVET in Nanning Municipality and support policy dialogue with stakeholders in Nanning Municipal Government and industry stakeholders. These include (i) analysis of the elderly care labor needs and the role of TVET providers in providing a skilled workforce in Nanning Municipality and (ii) assessment of the scope, training needs and methods for in-service and pre-service kindergarten teacher-training at Nanning No. 4 Vocational and Technical School (NVTS) and for Nanning Municipality.
 - (iii) Integration of ethnic minority design elements in the TVET capacity building components (see description in Section VII, C Indigenous Peoples Safeguard in this document).

B. Gender and Social Dimensions

3. Nanning Municipality has a total population of 7.07 million and covers an area of 22,112 km². There are 102 townships, 1,395 villages and 1,714 urban communities. The Municipality is mainly rural with some 73% of the population registered in rural areas. Ethnic minorities comprise 58% of the population. Among the groups,²⁶ the Zhuang ethnic minority constitute 85% of ethnic minority population and 51% of the total population. Poverty is largely a rural phenomenon in Nanning Municipality. The rural poverty rate is 19.5% (data from Nanning Municipal Poverty Alleviation Office 2010). The percentage of students coming from poor areas (as defined by the national criteria) are 28%, 36% and 41% respectively from preschool, nursing and rural doctor programs. All students are exempt from tuition fees, and there are various extra subsidies for supporting poor students, students from remote areas and ethnic minorities.

4. The project is categorized as effective gender mainstreaming. The poverty and social analysis revealed that both schools are dominated by female students, with some 98% representation for the preschool education, 97% in nursing and 40% in rural doctor training. The project provides for career and employment opportunities for a substantial number of students from poor and rural areas and these opportunities are primarily directed to women. The job service areas of kindergarten teachers, nursing and elderly care are all rapidly expanding in response to urbanization and key education and health sector policies to improve public services coverage and access to early childhood

²⁶ Other ethnic groups include Yao, Miao, Dong, and Hui.

education and health care. The employment rate of graduates from both schools is almost 100%. Improving the quality of social services TVET will have a substantial impact on creating pathways for women, especially rural women, to enter the new service driven economy and participate in the social and economic development of Nanning. The project will help to address gender disparities in urbanization as, to date; many urban job opportunities have been directed to men in construction and related industries.

5. The GAP and SAP focus on ensuring social inclusion in all of the TVET capacity building components. Key GAP actions include the following: (i) ensuring gender sensitive materials are prepared under the competency-based curriculum (CBC) development, (ii) providing access to training opportunities for women staff, (iii) development of a human resources outreach program for recruitment in rural areas with a particular emphasis on addressing gender stereotypes and trying to get more young men to join the kindergarten and nursing programs and young women to join the rural doctors programs, (iv) identifying gender issues to be addressed in curriculum development for elderly care, and (v) ensuring that women have access to the jobs related to construction activities.

6. Key actions under the SAP include (i) guidance on social inclusion and creation of an ethnic minority culture and history curriculum for the kindergarten program, (ii) targets to increase enrollment of students from rural and poor areas, (iii) creation of a bridging module in the elderly care program to provide new pathways to higher education for elderly care workers, (iv) participation by students and staff on consultations related to design and implementation of construction activities, (v) inclusion of social indicators (ethnicity, *hukou*, sex, income group) in all project monitoring activities, and (vi) a social and gender expert on the management support consulting team. Use of core labor standards and HIV/AIDS awareness training in the contracts for construction will mitigate social risks. Actions in the GAP and SAP are designed to work together to support gender and social inclusion. They will help ensure opportunities for women, address current gender disparities in recruitment and gender stereotypes in teaching materials and approaches. It must be borne in mind that the SAP and GAP provisions must be applied from the outset where works are undertaken using the retroactive financing facility, even though the loan agreement may not yet have been signed.

7. The GAP and SAP activities will be further supplemented with findings from two studies: (i) analysis of the elderly care labor needs and the role of TVET providers in providing a skilled workforce in Nanning Municipality, and (ii) assessment of the scope, training needs, and methods for in-service and pre-service kindergarten teacher training at NVTs and for Nanning Municipality. Findings from the studies will support policy dialogue with Nanning Municipal Government stakeholders and contribute to the knowledge base on TVET in PRC in general. Findings will be discussed and disseminated through workshops and other forum during the course of the project.

8. **Implementation and monitoring.** The project management office in coordination with the implementing agencies and with the assistance of the project management consulting service (6 person-months, social and gender consultant), are responsible for the implementation of the GAP and SAP, and reporting on progress and achievements of the project. Key indicators from both plans will be included in the PPMS and reported on bi-annually. The results based monitoring will also include an analysis of gender, ethnic minority and social issues.

Table 1: Social Action Plan

Outputs	Action	Indicator	Budget	Responsible Institutions
Output 1: TVET framework and capacity strengthening in project schools in Nanning is built.				
1. CBC and standards developed	(i) Social consultant to review existing curriculum materials and provide report on social inclusion and ethnic minority issues in the existing curriculum and recommendations for curriculum developers. (ii) Briefing on social inclusion and ethnic minority issues for CBC consultants and key staff from schools. (iii) CBC materials reflect social inclusion and ethnic minority issues and examples.	Social inclusion report Briefing minutes and attendance record Report on social inclusion and ethnic minority issues and examples included in the curriculum materials	Included in the project	Curriculum developers, social development consultant, project TVET consultants, PMO
2. Teacher training	At least 80% of teachers trained in student-centered teaching methods in each school (at least 50% women)	Percentage of teachers trained (sex disaggregated)	Included in the project	Two schools, project TVET consultants, PMO
3. Regional cooperation and strategic TVET and industry partnerships built	(i) IEC and outreach program on TVET training opportunities in rural areas with special attention to rural and ethnic minority students. (ii) Tracer studies include social indicators (ethnicity, <i>hukou</i> , sex) and analysis	Percentage increase in students from these areas (target increase of 15% baseline, tbd) Tracer study reports	Included in the project; NEB's own finance	Two schools, PMO, social development consultant, project TVET consultants, Nanning Municipal Education Bureau
4. Development of the elderly care curriculum	(i) Consultant team to prepare report on social inclusion and ethnic minority issues in elderly care. (ii) Bridging module created to address rural/urban disparities and facilitate advancement from elderly care worker to nursing.	Report Module endorsed by NHS. Number of students utilizing bridging program by 2017 (disaggregated by ethnicity, <i>hukou</i> , sex)	Included in the project	NHS, PMO, project TVET consultants, social consultant
Output 2: Pilot programs are implemented in Nanning project schools.				
Kindergarten training base	(ii) Pilot curriculum developed and implemented on ethnic minority culture and social inclusion. (iii) Inclusive design	Report on ethnic minority curriculum covering contents, teaching	Included in the project	NVTS, project TVET consultants, PMO, social development consultant

Outputs	Action	Indicator	Budget	Responsible Institutions
	features (e.g., physical, teaching methodologies, enrollment, and research) integrated into kindergarten training base.	methods, assessment, etc. Report on inclusive design features and impacts integrated over the course of the project		
Output 3: Buildings, campus facilities, and equipment are upgraded.				
Campus facilities and equipment, and buildings upgraded	<ul style="list-style-type: none"> (i) At least three consultation meetings held in each school reflecting the demands of staff and students on campus facilities and equipment at the design and implementation stages, especially those closely related to teaching, training, and enrollment. (ii) At least 30% of jobs generated by the project will be offered to local population. (iii) Local materials will be used where possible and local contractors will be prioritized. (iv) Comply with the core labor standards to ensure the health and safety of employees. (v) Include a clause on the inclusion of HIV/AIDS awareness training for construction workers in the tender documents for civil works. 	<p>Number of consultation meetings</p> <p>Percentage of jobs offered local population</p> <p>Applicable provisions in tender documents</p> <p>Applicable provisions in tender documents</p> <p>Frequency and venue of publicity and training on infectious disease and HIV prevention and treatment</p>	Included in the design budget and construction budget.	Two schools, PMO, design institute, contractors
Environment protection during construction and equipment installment	Take various measures to decrease environmental pollution and address safety (dust, noise, waste water, etc.) during the construction and equipment installation.	Complaints received from the nearby residents, teachers or students.	Included in EMP	Contractors, project owner
Output 4: Project management support				
Capacity building in project management of the PMO and related stakeholders	<ul style="list-style-type: none"> (i) Inclusion of social expert to ensure awareness and focus on ethnic minorities, poverty related issues in all aspects of project implementation. (ii) Project monitoring 	Consultant TOR Social indicators included in project PPMS and impact assessment analysis	Included in Project Management Support consultancy	PMO, project manager, M&E team

Outputs	Action	Indicator	Budget	Responsible Institutions
	system and impact assessment include relevant social indicators (ethnicity, hukou, sex)			

CBC = competency-based curriculum, EMP = environmental management plan, IEC = information, education and communication, M&E = monitoring and evaluation, NEB = Nanning Education Bureau, NHS = Nanning Health School, NVTS = Nanning No. 4 Vocational and Technical School, PMO = project management office, PPMS = project performance monitoring system, TOR = terms of reference, TVET = technical and vocational education and training.

Table 2: Gender Action Plan

Outputs	Action	Indicator	Budget	Responsible Institutions
Output 1: TVET framework and capacity strengthening in project schools in Nanning is built.				
1.CBC and standards developed	(i) Gender specialist to review existing curriculum materials and provide report and briefing on gender issues in the existing curriculum and recommendations for curriculum developers and key staff in school. (ii) Gender inclusive CBC materials developed. (iii) At least 40% of teachers participating in curriculum development working group and related activities are women.	(i) Gender report, briefing minutes, and attendance record (ii) Report on gender issues and examples included in the curriculum materials (iii) Percentage of female participants involved in working group and activities for curriculum development	Included in the project	Curriculum developers, gender consultant, project TVET consultants, PMO
2. Teacher training	(i) At least 50% trainees trained in student centered teaching methods are women. (ii) At least 50% of core trainers developed for each school are female.	(i) Percentage of female trainees (ii) Percentage of female core trainers	Included in the project	Two schools, PMO, project TVET consultants
3. Regional cooperation and strategic TVET and industry partnerships built	(i) At least 40% of participants (teachers, management) attending international or domestic short-term study tours or training will be women. (ii) Human resources outreach program on TVET training opportunities in rural areas with special attention to gender issues in career choice (i.e., male kindergarten teachers, nurses, new opportunities in elderly care, etc.) (iii) Tracer studies include sex disaggregation and a target of at least 80% female graduates employment after graduation	(i) Percentage female participants disaggregated by school, sex, major, training topic (ii) Number and kind of awareness raising activities through media, enrollment advertisement and employment guide (iii) Tracer study data and percentage of female graduates employment	Included in the project and NEB's own finance	Two schools, PMO, gender consultant, project TVET consultants, NEB

Outputs	Action	Indicator	Budget	Responsible Institutions
4. Development of the elderly care curriculum	(i) Consultant team to prepare report on gender issues in elderly care. (ii) Bridging module created to address rural/urban disparities and facilitate advancement from elderly care worker to nursing.	(i) Report (ii) Module endorsed by NHS. Number of students utilizing bridging module (disaggregated by sex)	Included in the project	NHS, PMO, Project TVET consultants, gender consultant
Output 2: Pilot programs are implemented in Nanning project schools.				
Design and implementation of a pilot rural training base program	(i) At least 80% of nursing students and 30% of rural doctor students trained in RTB are women. (ii) At least one key trainer in each RTB is female.	(i) Percentage of female nursing students and rural doctor trainees (ii) Numbers of female key trainers.	Included in the project	NHS, PMO, NHB
Output 3: Buildings, campus facilities, and equipment are upgraded.				
Campus facilities and equipment, and buildings upgraded	At least 30% of unskilled jobs generated by the project will be offered to women.	Percentage of unskilled jobs offered to women	Included in the construction budget	XIDC, Contractors, two schools, PMO
Output 4: Project management support.				
Capacity building in project management of the PMO and related stakeholders	(i) At least 40% of PMO staff who will receive training are women. (ii) Inclusion of gender expert on project management support team. (iii) All monitoring and evaluation activities include gender indicators.	(i) Consultant TOR (ii) Gender indicators included in PPMS and impact assessment analysis	6 person-months of input provided	PMO, project manager, M&E team

CBC = competency-based curriculum, M&E = monitoring and evaluation, NEB = Nanning Education Bureau, NHB = Nanning Health Bureau, NHS = Nanning Health School, PMO = project management office, PPMS = project performance monitoring system, RTB = rural training base, TOR = terms of reference, TVET = technical and vocational education and training, XIDC = Xiangsihu Investment and Development Company.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

A. Project Design and Monitoring Framework

1. The design and monitoring framework (DMF) for the project has been agreed between the Asian Development Bank (ADB), Nanning Municipal Government (NMG), Nanning Education Bureau, Nanning Health Bureau, Nanning Health School (NHS), and Nanning No. 4 Vocational and Technical School (NVTS). The DMF is in **Annex 1** of this manual and forms the foundation against which project success will be evaluated. While the high level project design (impact and outcome) are unlikely to change during the course of project implementation, changes are likely to occur at the output and inputs levels of the DMF. The continued relevance of the DMF and specific targets will be monitored as part of the project supervision and the DMF will be updated accordingly when necessary.

B. Monitoring

2. **Project performance monitoring.** At the commencement of project implementation, the project management office (PMO) and implementing agencies, with the assistance of the project management consultant, will develop a comprehensive project performance management system (PPMS) procedures to generate data systematically on the inputs and outputs of the components, as well as the indicators to be used to measure the project impact taking into account the components' scope. The PMO, on behalf of NMG, will (i) refine the PPMS; (ii) confirm achievable targets; (iii) finalize monitoring, recording, and reporting arrangements; and (iv) establish systems and procedures, no later than 6 months after loan effectiveness. The PMO supported by the implementing agencies will be responsible for monitoring and reporting on the performance of the project. The basis for performance monitoring will be the DMF. The DMF identifies the principal performance targets for the impact, outcome and outputs of the project. By collection of data from the sources identified in the DMF, the PMO will be able to report on a semiannual basis the performance of the project. A study will be conducted by the project management consultants to establish the pre-project performance baseline.

3. **Compliance monitoring.** Compliance with policy, legal, financial, economic, environmental, social, and other covenants contained in the loan and project agreements will be monitored by PMO and the implementing agencies will be required to advise PMO of any circumstances that result or will likely result in non-compliance. PMO will report the latest situation in respect of covenant compliance in each of its semiannual progress reports to ADB. ADB will monitor compliance through a review of the PMO progress reports and through selective follow-up discussions or more detailed reviews during supervisory missions to Nanning.

4. **Environmental safeguards monitoring.** Xiangsihu Investment and Development Company (XIDC) and its environment specialist assigned to the project (XIDC-ES) will conduct regular construction site inspections in accordance with the inspection and monitoring plan defined in the environment management plan (EMP), using the inspection checklist defined in Annex 2 of the initial environment examination (IEE). XIDC will also be responsible for organizing periodical environmental monitoring for noise and air quality in accordance with the monitoring plan defined in the EMP. Periodic campus monitoring will be done by the EPB during operations as outlined in the EMP. The PMO (with the support of the loan implementation environment specialist) will synthesize the quarterly environmental inspection and monitoring results provided by the XIDC-ES into the annual EMP monitoring and progress reports prepared for ADB. These will be disclosed on the

project website.²⁷

5. **Involuntary resettlement and indigenous peoples safeguards.** The project is classified as category C for involuntary resettlement and no resettlement actions were required. Therefore no monitoring requirements arise. The project is classified as category B for indigenous peoples safeguard. Ethnic minorities are the majority beneficiaries in the project. Inclusion is addressed in project design and specific actions are included in the project design and Social Action Plan as per paragraph 17 SR3 in the Safeguard Policy Statement (2009). These actions and their effectiveness and/or results will be monitored and reported as part of the SAP, and reported in the PPMS semiannually.

6. **Gender and social dimensions monitoring.** Wherever appropriate, all PPMS data is to be disaggregated and reported on the basis of gender, ethnicity, *hukou*, and socioeconomic status. The social and gender specialist on the project management consulting team will work with the PMO and the implementing agencies to design and agree specific reporting formats. The social and gender specialist will also provide training on how such reports should be analyzed, interpreted and what follow up action is indicated as necessary. PMO and the project implementation units of each implementing agency will have at least one designated person to be responsible for project monitoring and evaluation, including the gender and social dimensions. In addition to the PPMS monitoring and reporting, there is a requirement to ensure that all specific actions in the social and gender action plan are carried out and the results regularly reported upon semiannually and provided as an attachment to the PPMS. Monitoring of the construction contract requirements to use core labor standards and provide HIV/AIDS training to mitigate social risks will be done under the SAP. Contractors will be required to establish systems for regular monitoring of local employment including disaggregating for ethnicity and sex. Each semiannual progress report (see D below) is to include a summary of progress made in implementing the gender action plan and social action plan.

C. Evaluation

7. ADB and the government will review project implementation at least once a year. In addition, ADB and the government will undertake a comprehensive midterm review 2 years after the start of project implementation to have a detailed evaluation of the scope, implementation arrangements, achievement of scheduled targets, and progress on the agenda for policy reform and capacity-building measures. Feedback from the PPMS outputs will be analyzed. Within 6 months of physical completion of the project, NMG will submit a project completion report to ADB.²⁸

D. Reporting

8. NMG will provide ADB with (i) semiannual progress reports in a format consistent with ADB's project performance reporting system; (ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions, (c) updated procurement plan, and (d) updated implementation plan for next 12 months; and (iii) a project completion report within 6 months of physical completion of the project. To ensure the project continues to be both viable and sustainable, project accounts together with the associated auditor's report, should be adequately reviewed. The reporting schedule is in the table below.

²⁷ NMG will publish relevant project information on its current government website.

²⁸ Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

E. Reporting Schedule

Report	Reference	Due Time
Project Performance Management System Develop comprehensive PPMS procedures Reporting of baseline and progress data including environmental management plan	Project Agreement, Schedule, paras. 26–28	No later than 6 months after loan effectiveness Included in semiannual, project progress reports (see below)
Semiannual Project Progress Reports	Project Agreement, Schedule, para. 27	Semiannual, within 1 month after the end of each 6 month period (i.e. in July and January)
Audited Project Accounts and Financial Statements Auditor's Report (including Auditor's opinion on the use of the imprest account and statement of expenditures)	Project Agreement, Article II, Section 2.09	Not later than 6 months after the closure of each fiscal year (i.e. by 30th June)
Social Monitoring Reporting on social and gender action plan implementation	Project Agreement, Schedule, paras. 11 and 19	Included in the semiannual project progress reports
EMP monitoring and progress reports by the PMO to ADB	Project Agreement, Schedule, paras. 10–11	Included in the semiannual project progress reports
Project Completion Report	Project Agreement, Article II, Section 2.08 (c)	Not later than 6 months after the physical completion of the project

ADB = Asian Development Bank, EMP = environmental management plan, PMO = project management office, PPMS = project performance monitoring system.

F. Stakeholder Communication Strategy

9. Within the framework of the environmental due diligence, meaningful consultation was conducted with key stakeholders and potentially affected people. Information was disclosed to affected people through the website of Nanning Municipal Environment Protection Department and posters at all TVET institutions. The consultation process indicated that the majority of potentially affected people had a positive attitude toward the project. More extensive consultation was conducted with a wide range of stakeholders including: (i) teachers and management from the school; (ii) students; (iii) kindergarten (public and private) staff in Nanning Municipality urban and rural areas; (iv) health services staff at public and private clinics and hospitals in urban and rural areas; (v) communities in rural areas where kindergarten and health services are provided; and (vi) NMG, including the Health, Education, Labor, and Ethnic Minority Bureaus. A grievance redress mechanism has been defined to deal with public complaints related to the project during project implementation and operation. During construction and operation phases of the project, potentially affected people, TVET staff, and students will be involved through informal interviews. XIDCs will consult potentially affected people during regular site inspections. Annual EMP monitoring and progress reports will be disclosed on ADB's project website. TVET staff, students, industry representatives will all be involved in the design of TVET activities such as the competency based curriculum development, human resources management, and qualitative monitoring of project impacts.

X. ANTICORRUPTION POLICY

1. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.²⁹ All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all Project contractors, suppliers, consultants and other service providers. Individuals/entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the project.³⁰

2. To support these efforts, relevant provisions are included in the loan agreement and the bidding documents for the project. These include:

a. The Nanning Municipal Government, the Nanning Education Bureau (NEB), and Nanning Health Bureau (NHB) shall, and shall cause the implementing agencies to ensure they and all agencies involved in the Project, comply with ADB's Anticorruption Policy (1998, as amended to date). Nanning Municipal Government shall also cause the implementing agencies to undertake the following anticorruption actions: (i) involving full-time officials from the relevant Discipline Investigation Bureau in the bidding, award, and implementation of contracts; (ii) introducing a dual-signing system, in which the contract winner signs an anticorruption contract with the employer when they sign and execute the contract; and (iii) periodically inspecting the contractors' fund withdrawals and settlements.

b. In furtherance of the principles of transparency, participation, accountability, and zero-tolerance for corruption, Nanning Municipal Government shall maintain a relevant web-site that describes the project in order to provide the public with information on the project and project progress including setting out (a) the procurement plan and tracking of procurement contract awards, (b) relevant laws and regulations, and (c) job opportunities.

3. **Grievance and redress mechanism.** Nanning Municipal Government will ensure that within 60 days following the Effective Date, a comprehensive grievance redress mechanisms are established in accordance with the provisions of the Project Agreement to receive and facilitate resolution of stakeholder (including the general public) concerns, complaints, and grievances about the project. The grievance procedures should have multiple channels for both receiving and processing grievances of different types. For example, environmental grievances are to be dealt with in accordance with the mechanism documented in the IEE.

4. During project preparations a risk assessment and risk management plan were prepared in accordance with the ADB's Second Governance and Anticorruption Action Plan. The assessment was that with the implementation of appropriate mitigation measures, as discussed and agreed with NMG and the IAs, the overall governance risk level was negligible to moderate. The risk management plan is a linked document to the report and recommendation to the President.

²⁹ Available at: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

³⁰ ADB's Integrity Office web site is available at: <http://www.adb.org/integrity/unit.asp>

XI. ACCOUNTABILITY MECHANISM

1. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make a good faith effort to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.³¹

³¹ For further information see: <http://www.adb.org/Accountability-Mechanism/default.asp>.

XII. RECORD OF PAM CHANGES

1. All revisions/updates during course of implementation should be retained in this Section to provide a chronological history of changes to implemented arrangements recorded in the PAM.

APPENDIX 1: DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
<p>Impact Improved delivery of social services in Nanning Municipality</p>	<p>By 2022 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>Assumption Government commitment to improving delivery of social services is sustained with adequate budget support</p> <p>Risk The economy and social services fail to expand on a sustainable basis</p>
<p>Outcome Increased TVET quality and training capacity in the NHS and NVTS by 2020</p>	<p>By 2018 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>Assumption Public and private industry experts participate fully in developing and delivering effective training programs</p> <p>Risk Low wages in social services reduces interests in social sector TVET</p>
<p>Outputs 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>Assumption TVET institutions have adequate and qualified manpower for capacity strengthening</p> <p>Risk Commitment of TVET institutions to implementing change in teaching and learning methods is not sustained</p>

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
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>Assumption Operations and maintenance costs of sustaining and expanding the pilots after the project will be provided</p> <p>Risk 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>Assumptions 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>Assumption PMO fully staffed</p> <p>Risk Staff turnover creates delays</p>

Activities with Milestones	Inputs	
<p>1. TVET Capacity Strengthened in Project Schools</p> <p>1.1 Curriculum Development</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>1.2 Teacher Training</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>	ADB: Total \$50 million	
	Item	Amount (\$ million)
	Civil works	41.74
	Equipment	4.87
Capacity development	3.39	

Activities with Milestones	Inputs	
framework by 2017	Government: Total \$52.69 million	
1.3 Human Resources	Item	Amount (\$ million)
1.3.1 Conduct needs assessment for human resources development strategy at both schools by 2014	Civil works	38.34
1.3.2 Develop and implement tracer studies by 2015	Equipment	0.49
1.3.3 Identify institutions and establish partnership agreements by 2016	Contingencies	11.94
1.4 Elderly Care	Financing charges during implementation	1.92
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		
2. Pilot Programs Implemented in Project Schools		
2.1. Rural Training Bases		
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		
2.2 Kindergarten Training Base		
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		
3. Buildings, campus facilities, and equipment upgraded		
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		
4. Project management support implemented		
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		

CBC = competency-based curriculum, CPD = continued professional development, EMS = environmental management system, NEB = Nanning Educational Bureau, NHB = Nanning Health Bureau, NHS = Nanning Health School, NVTS = Nanning No. 4 Vocational and Technical School, PIC = project implementation consultant, PMO = project management office, PPMS = project performance monitoring system, PPTA = project preparatory technical assistance, TVET = technical and vocational education and training.

APPENDIX 2: ENVIRONMENTAL MANAGEMENT PLAN

A. Introduction

1. This environmental management plan (EMP) is developed for the Guangxi Nanning Vocational Education Development Project (the project) and defines all potential impacts of the project outputs and the mitigation and protection measures with the objective of avoiding or reducing these impacts to acceptable levels. The EMP also defines the institutional arrangements and mechanisms, the roles and responsibilities of different institutions, procedures and budgets for implementation of the EMP. The EMP seeks to ensure continuously improving environmental protection activities during preconstruction, construction, and operation in order to prevent, reduce, or mitigate adverse impacts and risks. The EMP draws on the findings of the project IEE, the domestic TEIA reports, PPTA and ADB review mission discussions and agreements with the relevant government agencies.

2. The EMP will be reviewed and updated at the end of the detailed design in order to be consistent with the final detailed design. The updated EMP will be disclosed on the ADB project website. The updated EMP will also be included as a separate annex in all bidding documents. The contractors will be made aware of their obligations to implement the EMP, to budget EMP implementation costs in their bids, and to develop site-EMPs fully responsive to the EMP.

B. Institutional Responsibilities

3. Figure EMP.1 defines the organizational structure for the Guangxi Nanning Vocational Education Development Project.

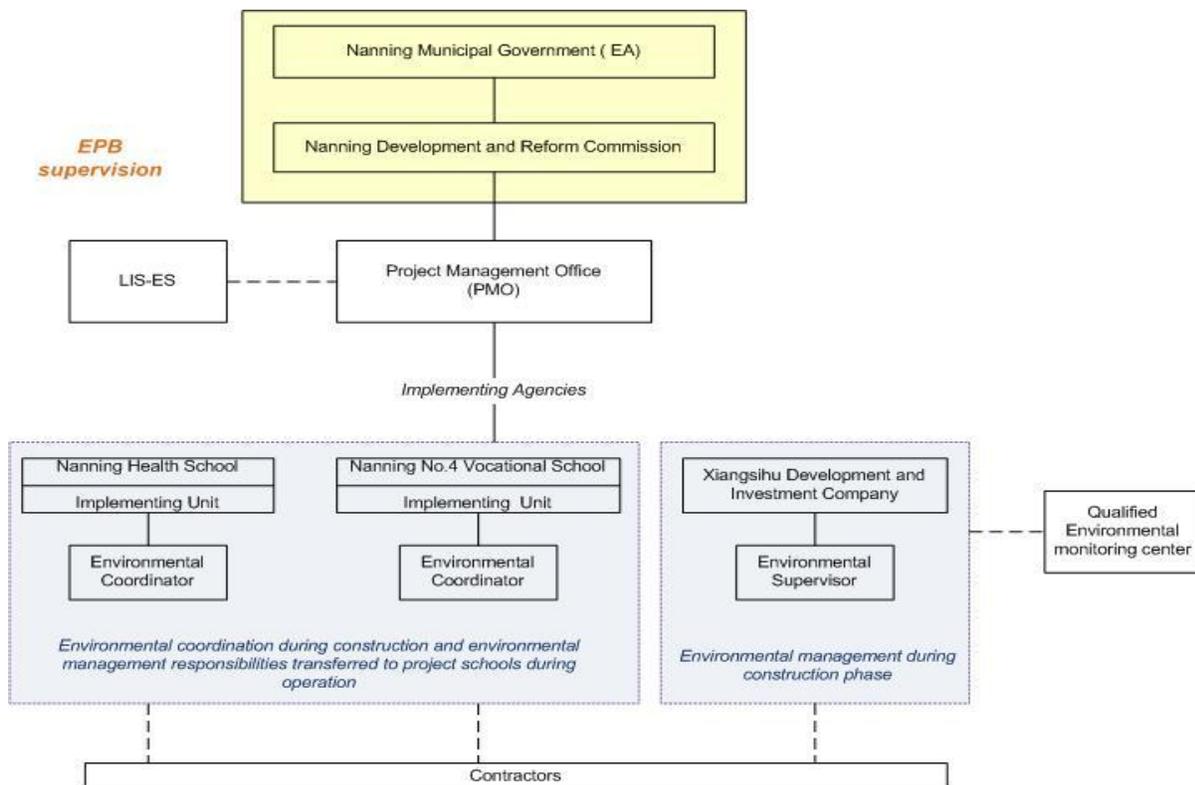


Figure EMP.1: Institutional arrangement for environmental management of Guangxi Nanning Vocational Education Development Project.

4. As **executing agency**, the **Nanning Municipal Government (NNMG)** will be responsible for the overall implementation of the project, including the EMP and its Environmental Monitoring Plan. The executing agency will have the overall responsibility for coordinating project implementation in the project schools and organizing provincially managed activities. NNMG has established the **Nanning project steering committee**, led by the Vice Mayor of Nanning Municipality and including high level officials from BEP, BOE, BOF, BOH, HURDC, and Nanning Development and Reform Commission (NNDRC) and to (i) provide overall project direction and any required policy guidance; (ii) oversee the preparation and implementation of the project; (iii) provide overall guidance to the project; (iv) support cross-agency policy dialogue; (v) review project progress and provide strategic advice to support effective implementation.

5. NNDRC will exercise day-to-day oversight of the project and will be responsible for (i) approval of domestic feasibility study and submission of authorization requests for foreign capital utilization; (ii) approval of any major changes needed to project scope; (iii) liaison with NDRC; (iv) facilitating interdepartmental and inter-sector cooperation needed for effective project implementation; (v) economic planning and managing the alignment of individual sector plans and reforms with the approved economic plans; and (vi) involvement in policy dialogue.

6. NNDRC has established a **project management office (PMO)** to direct project preparation and implementation activities, coordinate implementation of environmental safeguards plans, monitor project progress and project impacts, and facilitate the communication and coordination with ADB. The PMO is staffed from NNDRC. For environment safeguards, the PMO will have the overall responsibility delegated by NNDRC for supervising the implementation of the EMP, coordinating the Project level grievance redress mechanism (GRM) and reporting to ADB. The PMO will assign one safeguards officer (PMO-SO) in charge to supervise the effective implementation of the EMP.

7. To ensure that the contractors comply with the EMP provisions, the PMO-SO with the help and technical support of environment specialist of the Loan Implementation Support (LIS-ES), will prepare and provide the following specification clauses for incorporation into the bidding procedures: (i) a list of environmental management requirements to be budgeted by the bidders in their proposals; (ii) environmental clauses for contractual terms and conditions; and (iii) major items in the IEE and EMP. In addition the PMO-SO will prepare annual environment monitoring and EMP progress reports in English, and submit them to ADB for appraisal and disclosure.

8. **Implementing agencies and implementing units.** The Project will include three implementing agencies: Nanning Health School (NHS) and Nanning No. 4 Vocational and Technical School (NVTs) as well as the Xiangsihu Investment and Development Company (XIDC). NHS and NVTs will each set up an implementing unit to coordinate the preparation and implementation of subproject components. The implementing unit will be fully staffed with technical experts and administrators in charge of school reform, procurement, financial management, disbursement, monitoring, evaluation, and coordination.

9. **XIDC environment supervisor.** XIDC will lead the preparation and implementation of component 3 (civil works) under the assistance of NHS and NVTs. XIDC will appoint one environment supervisor (XIDC-ES) to (i) review and approve contractors' site-EMP; (ii) conduct site

inspections following the site inspection checklist (Appendix 2 of the IEE); (iii) organize periodic environmental monitoring in compliance with the approved monitoring plan; (iv) act as local entry point for the project grievance redress mechanism (GRM); (v) assess the contractors' compliance with the site-EMP and PRC environmental quality standards for ambient air, water and noise quality; (vi) submit quarterly inspection and monitoring results to the contractors for information, and to the 3 implementing agencies and the PMO for verification and confirmation.

10. **School environmental coordinators.** NHS and NVTs will appoint one environmental coordinator to (i) liaise with the XIDC-ES and contractors and manage school activities potentially affected during construction; (ii) act as one team member of the EMS committee (the EMS committee is composed by one management representative and members from relevant departments of the school) to participate in environmental management in the daily school activities during operation; and (iii) act as local entry point for GRM.

11. **Construction contractors** will be responsible for implementing the mitigation measures during construction. In their bids, contractors will be required to respond to the environmental management requirements defined in the EMP. Each contractor will be required to develop site-EMPs and will assign a person responsible for environment, health and safety. After project completion, environmental management responsibilities will be handed over to the project schools.

12. **Environment Specialist of the loan implementation support.** Under the loan implementation consultancy services, one international (1 person-month) and one national (3 man-months) EMS specialists will be recruited to assist the project schools establishing integrated EMS for the daily operation of campus, following the green campus framework defined in Appendix 3 of the IEE. The EMS will aim at ensuring continual improvement by incorporating ongoing monitoring, reviews, and revisions of the environmental procedures. In addition, one national LIS-ES will support the project with (i) project preparation, including EMP update; (ii) EMP training, (iii) annual environment monitoring and EMP progress reporting; (iv) identifying environment-related implementation issues and necessary corrective actions; (v) undertaking site visits as required; and (vi) provide assistance to the EMS specialist to support implementing agencies in developing environment management systems (EMS). The LIS-ES will be hired for 3 person-months during project implementation. The specialist will support the implementation of the EMP, including:

- (i) assess the project outputs' environmental readiness prior to implementation based on the readiness indicators defined in Table EMP.4;
- (ii) update the EMP including mitigation measures, monitoring plan, institutional arrangements, and training plan as necessary, to reflect the final project scope and detailed design, submit to ADB for review and disclosure;
- (iii) if required, update the IEE report for changes in the project during detailed design (for example if there is a scope change) that would result in adverse environmental impacts not within the scope of the approved IEE;
- (iv) support the executing agency, PMO, implementing agency, implementing units and tendering companies in preparing tender documents; ensure that the bidding documents and civil works contracts contain provisions requiring contractors to comply with the mitigation measures in the EMP and that relevant sections of the updated project EMP are incorporated in the bidding and contract documents;
- (v) support XIDC-ES and PMO-SO in reviewing and approving contractors' site-EMPs and organizing the conduct of periodic environmental impact monitoring;
- (vi) assist the executing agency and PMO to establish a GRM, and provide training for the PMO and GRM access points;
- (vii) Conduct regular EMP compliance verification, undertake site visits as required,

- identify any environment-related implementation issues, and propose necessary corrective actions;
- (viii) Prepare, on behalf of PMO, annual EMP monitoring and progress reports to ADB;
 - (ix) provide training to PMO, implementing agencies, implementing units, and contractors on environmental laws, regulations and policies, SPS 2009, EMP implementation, and GRM in accordance with the training plan defined in the EMP;
 - (x) assist the PMO, implementing agencies, and implementing units in conducting consultation meetings with relevant stakeholders as required, informing them of imminent construction works, updating them on the latest project development activities, GRM; and
 - (xi) conduct rapid assessment of project facilities after project completion and approximately one year of operation to confirm compliance with EMP as well as sound management practices (environment audit).

13. Overall environmental responsibilities are outlined in **Table EMP-1**.

Table EMP-1: Environmental Responsibilities by Project Phase

Phase	Responsible Agencies	Environmental Responsibilities
Detailed Design	design institutes	Incorporation of environmental mitigation measures in detailed designs
	PMO, LIS-ES	Update EMP based on detailed design, if necessary
	ADB	Approve updated EMP, if necessary
Tendering	PMO, XIDC, implementing units, tendering company	Ensure that mitigation measures and the EMP clauses are incorporated in tendering documents, civil works contracts and contractors' site-EMPs
	LIS-ES, ADB	Review tendering documents; confirm project's readiness
Construction	Contractors	Develop site-EMP; appoint one environmental specialist to coordinate site-EMP implementation; ensure health and safety.
	PMO	Coordinate GRM; supervise EMP implementation; prepare annual environmental progress report (with support of LIS-ES)
	XIDC, XIDC-ES	Assign one XIDC-ES; conduct environmental inspections and regular monitoring; prepare quarterly environmental inspection and monitoring reports; act as local GRM entry point.
	NHS, NVTS, S-EC	Assign one S-EC to liaise with the XIDC-ES and contractors; manage school activities potentially affected during construction; act as local entry point for GRM and member of the EMS committee.
	LIS-ES	Advise on the mitigation measures; provide comprehensive technical support to PMO, implementing agencies, and implementing units for environmental management; conduct training; conduct annual EMP compliance review; support PMO in preparing annual environmental progress reports.
	ADB	Conduct review missions; review and approve annual environmental progress reports, including disclosure
	NEPB	Conduct periodic inspections of all construction projects relative to compliance with PRC regulations and standards.
Operation	PMO	Conduct EMP compliance review, instruct implementing agencies on environmental management requirements; prepare annual environmental progress report for first year of operation
	NHS, NVTS	Establish tailored EMS to manage the environmental, health and safety aspects in a systematic way and promote implementation of 3"R" and green campus measures.

3R = reuse, reduce, recycle, ADB = Asia Development Bank; GRM = grievance redress mechanism, LIS-ES = Loan Implementation Support Environment Specialist; PMO = Project Management Office; XIDC = Xiangsihu Development

and Investment Company; NHS = Nanning Health School; NVTS = Nanning No. 4 Vocational and Technical School; EMP = Environment Management Plan; NEPB = Nanning Environment Protection Bureau; XIDC-ES = XIDC environmental supervisor; S-EC = school environment coordinator; EMS = Environment Management System.

C. Summary of Potential Impacts and Mitigation Measures

14. Potential environmental issues and impacts during the pre-construction, construction and operation phases, as identified in the IEE, as well as corresponding mitigation measures designed to minimize the impacts are summarized in Table EMP-2. The contractors will reflect these mitigation measures in their site-EMPs, to be reviewed and approved by the XIDC-ES, the PMO-SO and the LIS-ES.

15. The effectiveness of these measures will be evaluated based on the results of the environmental inspections and monitoring conducted by the XIDC-ES, and through EMP verification conducted by the LIS-ES.

16. Many of the mitigation measures will be shouldered by construction contractors in the construction phase. Periodic monitoring and regular supervision costs will be shouldered by XIDC. The PMO will ensure that adequate funds for mitigation measures and monitoring activities have been allocated by the contractor and XIDC, respectively.

Table EMP-2: Anticipated Impacts, Mitigation Measures

Impact factor / Project stage	Potential Impacts and/or Issues	Location	Mitigation measures	Implementation Agency	Supervision Agency	Monitoring Indicators
A. Pre-construction Phase						
1.Detailed Design Stage	Institutional strengthening	<i>Not applicable</i>	<ul style="list-style-type: none"> - Implementing agencies to establish implementing units, - PMO to assign PMO-SO; - PMO to engage LIS-ES; - XIDC to engage XIDC-ES; - NVTs and NHS to appoint S-EC; 	Implementing agencies, implementing units, PMO	Executing agency, ADB	Project readiness assessment by LIS-ES, First EMR.
	Design complying with relevant national health, safety and environmental codes and standards, including green and energy-efficient building codes and specifications.	All new buildings	<ul style="list-style-type: none"> - Design buildings in compliance with relevant design standards and codes for energy-efficient, safe and green public buildings, including but not limited to: GB 50176-1993 (Thermal Design Code for Public Buildings); GB/T 50378-2006 (Evaluation Standard for Green Buildings); GB 50099-2011 (Code for design of schools); GB 50011-2010 (Building Seismic Design Code); GB 50016-2006 (Code of Design on Building Fire Protection and Prevention); GB 50189-2005 (Energy Conservation Design for Public Buildings) and other applicable national design codes. - Ensure use of no VOC-emitting materials (including paints, coatings, adhesives, carpet and furniture's) to ensure high indoor air quality; 	DIs	Executing agency, LIS	Approved detailed designs, First EMR
	Updating EMP	<i>Not applicable</i>	<ul style="list-style-type: none"> - Review mitigation measures defined in this EMP, update as required to reflect detailed design. 	LIS-ES, PMO-SO	ADB	Updated EMP approved by ADB and disclosed.

Impact factor / Project stage	Potential Impacts and/or Issues	Location	Mitigation measures	Implementation Agency	Supervision Agency	Monitoring Indicators
2. Bidding and Contract Award Stage	Bidding documents and contractors qualifications	<i>Not applicable</i>	<ul style="list-style-type: none"> - Include updated EMP of the IEE as annex to the Requests for Proposals; - Include an environmental section in the TOR for bidders; - Ensure that construction and supply contracts are responsive to EMP provisions and mitigation and monitoring measures are adequately budgeted; - Implement a Green Public Procurement policy, with references to Public Procurement List of Energy-Saving Products (NDRC & MOF, 2011, or as updated) and Public Procurement List of Environmental Labeling Products (MEP & MOF, 2011, or as updated). 	design institutes, XIDC-ES, NHS, NVTs, LIS-ES	Executing agency, PMO, ADB	Bidding documents, construction and supply contracts
	GRM	<i>Not applicable</i>	<ul style="list-style-type: none"> - Establish a GRM, appoint a GRM coordinator; - Brief and provide training to GRM access points (S-EC, XIDC-ES, contractors); - Disclose GRM to affected people before construction begins. 	PMO-SO, LIS-ES	Executing agency, ADB	Operational GRM, First EMR
	EMP Training	<i>Not applicable</i>	<ul style="list-style-type: none"> - Provide training to implementing agencies, implementing units, and contractors on implementation and supervision of EMP, GRM, reporting, in compliance with training plan (Table EMP.5) 	LIS-ES	PMO, ADB	Evidence of training provided, satisfaction survey of participants, First EMR
	Site-EMPs	<i>Not applicable</i>	<ul style="list-style-type: none"> - Develop Site-EMPs, responding to all clauses and requirements of this EMP, and including sub-plans such as Spill Management Plan, Waste Management 	Contractor	PMO-SO, XIDC-ES, LIS-ES	Approved Site-EMPs, First EMR.

Impact factor / Project stage	Potential Impacts and/or Issues	Location	Mitigation measures	Implementation Agency	Supervision Agency	Monitoring Indicators
			Plan, Temporary Traffic Management Plan, Occupational Health and Safety Plan, Soil Erosion Control Plan, and others.			
B. Construction Phase						
1. Soil	Soil erosion	All construction sites, spoil disposal sites (if any)	<ul style="list-style-type: none"> - Prepare soil erosion control plan (showing how runoff will be controlled at site perimeter to control soil and water runoff, and how disturbed areas will be reclaimed); - Minimize active open excavation areas; - Construct intercepting ditches and drains to prevent runoff entering construction sites, and divert runoff from sites to existing drainage; - Stabilize all earthwork disturbance areas within maximum 14 days after earthworks have ceased; - Properly slope and re-vegetate disturbed surfaces 	Contractor	XIDC-ES, S-EC, LIS-ES	Quarterly inspection reports of XIDC-ES, annual EMRs
	Soil contamination	All construction sites	<ul style="list-style-type: none"> - Store chemicals/hazardous products and waste on impermeable surfaces in secure, covered areas; - Remove all construction wastes from the site to approved waste disposal sites; - Establish emergency preparedness and response plan (Spill Management Plan); - Provide spill cleanup measures and equipment at each construction site; - Conduct training in emergency spill response procedures. 	Contractor	XIDC-ES, S-EC, LIS-ES	Quarterly inspection reports of XIDC-ES, annual EMRs

Impact factor / Project stage	Potential Impacts and/or Issues	Location	Mitigation measures	Implementation Agency	Supervision Agency	Monitoring Indicators
2. Surface and Groundwater	Pollution of surface and groundwater resources	All construction sites	<ul style="list-style-type: none"> - Install water collection basins and sediment traps in all areas where construction equipment is washed; - Wastewater generated from the washing down of mixer trucks and drum mixers and similar equipment should wherever practicable be recycled. - Surplus wastewater and wastewater generated from building construction activities, including concreting, plastering, cleaning of works and similar activities should be discharged in to sewer after removal of solids in a silt removal facility; - Sewage from temporary toilets, kitchens and similar facilities should be stored in an on-site facility (such as septic tank), emptied regularly and transported to a designated wastewater treatment plant for further treatment; - Develop and implement Spill Management Plan; - Properly manage solid waste (see below). 	Contractor	XIDC-ES, S-EC, LIS-ES	Quarterly inspection reports of XIDC-ES, annual EMRs
3. Solid waste	Construction and domestic wastes generated on construction sites	All construction sites	<ul style="list-style-type: none"> - Maximize reuse/recycling of construction and deconstruction wastes (e.g. iron, bricks, windows, doors, steel bars etc.); - Provide appropriate waste storage containers for worker's construction and hazardous wastes; - Install confined storage points of solid wastes away from sensitive receptors, regularly haul to an approved disposal facility; 	Contractor	XIDC-ES, S-EC, LIS-ES	Quarterly inspection reports of XIDC-ES, annual EMRs

Impact factor / Project stage	Potential Impacts and/or Issues	Location	Mitigation measures	Implementation Agency	Supervision Agency	Monitoring Indicators
			<ul style="list-style-type: none"> - Use licensed contractors to remove wastes from the construction sites; - Prohibit burning of waste. 			
4. Noise	Noise from construction activities	All construction sites	<ul style="list-style-type: none"> - Maintain equipment and machinery in good working order; undertake regular equipment maintenance, ensure compliance with PRC standard of GB 12523-2011; - Operate between 0800H-2000H only and reach an agreement with NHS and NVTs management and nearby residents regarding the timing of heavy machinery work, to avoid any unnecessary disturbances; Nighttime works should only be conducted in exceptional cases, and a permit should be obtained for that purpose; potentially affected people including students, staff and nearby residents should be informed in advance; - Install temporary anti-noise barriers to shield school buildings where non-compliance with Category 2 in Environmental Quality Standards for Noise (GB3096-2008) is anticipated/monitored; - Locate sites for concrete-mixing and similar activities at least 300 m from sensitive areas if without any mitigations; - Monitor noise within NVTs campus and at nearby sensitive areas at regular intervals (as defined in the monitoring plan); - Seek suggestions from two school management and potentially affected 	Contractor	XIDC-ES, S-EC, LIS-ES	Quarterly inspection reports of XIDC-ES; annual EMRs;

Impact factor / Project stage	Potential Impacts and/or Issues	Location	Mitigation measures	Implementation Agency	Supervision Agency	Monitoring Indicators
			sensitive receptors to reduce noise annoyance. Disseminate information on procedure of handling complaints through the Grievance Redress Mechanism.			
5. Ambient Air	Dust generated during construction	All construction sites, including nearby residential areas	<ul style="list-style-type: none"> - Install perimeter fences at each site prior to construction. The fence shall be at least 2m high; - Spray water at least twice a day where fugitive dust is generated during deconstruction of old buildings and civil works; - Cover trucks carrying earth, sand or stone with tarps or other suitable cover to avoid spilling and dust generation; - Undertake regular air quality monitoring in around the two campuses in accordance with the monitoring plan; - Regularly consult students and staff as well as nearby residents to identify concerns, and implement additional dust control measures as necessary. 	Contractor	XIDC-ES, S-EC, LIS-ES	Quarterly inspection reports of XIDC-ES; annual EMRs;
	Air emissions from construction vehicles and machinery	All construction sites	<ul style="list-style-type: none"> - Store petroleum or other harmful materials in appropriate places and covering to minimize fugitive dust and emission; - Maintain vehicles and construction machineries to a high standard to ensure efficient running and fuel-burning and compliance with the PRC emission standards (GB18352-2005, GB17691-2005, GB11340-2005, GB2847-2005, and GB18285-2005). 	Contractor	XIDC-ES, S-EC, LIS-ES	Quarterly inspection reports of XIDC-ES; annual EMRs;
6. Physical	Damage to known	All	<ul style="list-style-type: none"> - Establish chance-find procedures for 	Contractor	XIDC-ES, S-	Quarterly

Impact factor / Project stage	Potential Impacts and/or Issues	Location	Mitigation measures	Implementation Agency	Supervision Agency	Monitoring Indicators
cultural resources	or unknown above- or below-ground cultural relics	construction sites with excavation works	<p>physical cultural resources</p> <ul style="list-style-type: none"> - If a new site is unearthed, work must be stopped immediately and the implementing agency and local cultural relic bureau promptly notified, and construction will resume only after a thorough investigation and with the permission of the appropriate authority. 		EC, LIS-ES; local cultural relics bureau	inspection reports of XIDC-ES; annual EMRs;
7. Flora and Fauna	Protection of vegetation, re-vegetation of disturbed areas; greening of sites	NHS and NVTS campuses	<ul style="list-style-type: none"> - Preserve existing vegetation where no construction activity is planned; - Remove trees or shrubs only as a last resort if they impinge directly on permanent structures; - Properly re-vegetate disturbed areas after completion of civil works; 	Contractor	XIDC-ES, S-EC, LIS-ES;	Annual EMRs;
8. Health and Safety	Occupational Health and Safety	All construction sites, work camps	<ul style="list-style-type: none"> - Appoint one staff to implement and supervise the implementation of the Site-EMP and the performance of subcontractors; - Provide safe supply of clean water and an adequate number of latrines and other sanitary arrangements at the site and work areas, and ensure that they are cleaned and maintained in a hygienic state; - Provide garbage receptacles at construction site; - Provide personal protection equipment (PPE) for workers in accordance with relevant health and safety regulations; - Develop an emergency response plan to take actions on accidents and emergencies; document and report 	Contractor, (NVTS, NHS)	XIDC-ES, local center of disease control, LIS-ES	Inspection report of ES, report on number of incidents and complaints in annual EMRs

Impact factor / Project stage	Potential Impacts and/or Issues	Location	Mitigation measures	Implementation Agency	Supervision Agency	Monitoring Indicators
			<p>occupational accidents, diseases, and incidents; organize fully equipped first-aid base at each construction site;</p> <ul style="list-style-type: none"> - Establish Records Management System that will store and maintain easily retrievable records on occupational accidents, diseases, and incidents. - Train all construction workers in basic sanitation and hygiene issues, general health and safety matters, and on the specific hazards of their work. - To minimize the risk of conflicts between workers and staff/students of the schools, implement HIV/AIDS and sexually transmitted infections (STIs) awareness and prevention training for all employees, and together with the local centers of disease control and the school management, disseminate information on the risks, hazards, impacts and prevention know-how on HIV/AIDS and STIs among the staff/students, workers on the construction sites, students and staff of NVTs and NHS, and local community. - Ensure that safety, rescue and industrial health matters are given a high degree of publicity to all persons regularly or occasionally on the site. Posters drawing attention to site safety, rescue and industrial health regulations will be made or obtained from the appropriate sources and will be displayed prominently in 			

Impact factor / Project stage	Potential Impacts and/or Issues	Location	Mitigation measures	Implementation Agency	Supervision Agency	Monitoring Indicators
			relevant areas of the site;			
	Community Health and Safety	All construction sites, NVTS and NHS campuses, plus nearby residential areas	<ul style="list-style-type: none"> - Prepare traffic control plan within and around NVTS and NHS campuses during construction, to be approved by XIDC, NVTS and NHS management, and local traffic management administration. The plan shall include provisions for diverting or scheduling construction traffic to avoid peak traffic hours, main teaching activities such as exams, regulating traffic at road crossings with an emphasis on ensuring public safety through clear signage; - Designate staff members to control traffic during on-school and off-school hours; - Ensure that all sites are secure, discouraging access through appropriate fencing; place clear signs at construction sites in view of the people at risk (including students, staff and nearby communities), warning people of potential dangers such as moving vehicles, hazardous materials, excavations etc. and raising awareness on safety issues; - Return machinery to its overnight storage area/position. - In collaboration with the school management, held a meeting prior to commencing construction to discuss issues associated with ensuring the safety of students and staff, as well as nearby communities in the vicinity of the construction site. 	Contractor, (NVTS, NHS)	XIDC-ES, S-EC, LIS-ES; local traffic police	Inspection report of ES, report on number of incidents and complaints in annual EMRs

Impact factor / Project stage	Potential Impacts and/or Issues	Location	Mitigation measures	Implementation Agency	Supervision Agency	Monitoring Indicators
	Utilities provision interruption	All construction sites, NVTS and NHS campuses, nearby areas	<ul style="list-style-type: none"> Assess potential disruption to services and identify risks before starting construction; If temporary disruption is unavoidable, develop a plan to minimize the disruption and communicate the dates and duration in advance to all affected people, in conjunction with the NHS and NVTS management. 	Contractor	XIDC-ES, S-EC, LIS-ES;	Annual EMRs;
9. Labor standards and rights	Social protection of workers	<i>Not applicable</i>	<ul style="list-style-type: none"> Contractors shall (i) provide equal pay for equal work, regardless of gender or ethnicity; (ii) provide the timely payment of wages; (iii) use local unskilled labor, as applicable, (iv) comply with core labor standards and the applicable labor laws and regulations, including stipulations related to employment, e.g. health, safety, welfare and the workers' rights, and anti-trafficking laws; and (v) not employ child labor. Contractors shall maintain records of labor employment, including the name, ethnicity, age, gender, domicile, working time, and the payment of wages. 	Contractor	XIDC, LIS, PMO	Project progress reports
10. EMS		NVTS, NHS	<ul style="list-style-type: none"> Development of a campus-wide environment management system (EMS), including development of simple tools and programs, based on the strategy outlined in Appendix 3 of the IEE, to improve the TVET institutions' environment, health and safety systems. 	EMS specialist, NVTS, NHS	Executing agency, ADB	EMS established and operational.
C. Operation Phase						
1. EMS	Implementation of	NVTS, NHS	<ul style="list-style-type: none"> Ensure implementation of the EMS to 	EMS specialist,	Executing	EMS system

Impact factor / Project stage	Potential Impacts and/or Issues	Location	Mitigation measures	Implementation Agency	Supervision Agency	Monitoring Indicators
	EMS		manage the activities in campus to achieve green, safe and sustainable campus in compliance with the Green Campus Policy.	NVTS, NHS	agency, ADB	to be reported on in first operation phase EMR
2. Wastewater	Inadequate wastewater disposal	NVTS, NHS	<ul style="list-style-type: none"> - Ensure connection of new buildings to on-site pretreatment facilities (septic tanks) and to municipal sewer system. - Periodically monitor (visual inspection) sludge accumulation in septic tanks, and request licensed company to desludge as needed. 	NVTS, NHS	Local EPB	First operation phase EMR
3. Solid waste	Inappropriate management of non-hazardous solid waste	NVTS, NHS	<ul style="list-style-type: none"> - Provide adequate solid waste collection facilities in all buildings and on the campus; - Promote segregation of waste through (i) provision of separate collection bins for paper, biodegradable waste, metallic waste, and other wastes; and (ii) provision of training and awareness raising for TVET staff and students; - Reach agreement with waste collection service provider(s) for different types of waste; - Regularly clean and disinfect waste collection facilities. 	NVTS, NHS	Local EPB	First operation phase EMR
4. Health and safety	Campus health and safety	TVET classrooms, workshops, outdoor areas	<ul style="list-style-type: none"> - Ensure compliance with relevant health and safety regulations pertaining to ventilation, indoor air quality, lighting, noise, fire escape, etc.; - Establish preparedness plan and operation 	NVTS, NHS	executing agency, occupational health authorities	First operation phase EMR

Impact factor / Project stage	Potential Impacts and/or Issues	Location	Mitigation measures	Implementation Agency	Supervision Agency	Monitoring Indicators
			<p>plan under emergency conditions, such as fire, flood, earthquake, wind, storm, water contamination, epidemic, air contamination, infestation, explosion etc., as part of the campus-wide EMS to ensure safe environment for all student, faculty, staff and visitors.</p> <ul style="list-style-type: none"> - Prepare safety checklist and reporting forms as procedure control documents of EMS; - Provide guidelines and reference materials to help campus reduce or eliminate potential hazards which may cause injury, illness or property loss. 			

ADB = Asia Development Bank, EHS = environment, health, and safety, EMP = environmental management plan, EMR = annual environment monitoring and EMP progress report, EMS = environment management system, EPB = Environment Protection Bureau, GRM = grievance redress mechanism, IEE = initial environmental examination, LIC = Loan Implementation Consultant, LIS-ES = Loan Implementation Environmental Consultants, PMO = project management office, TVET = technical vocational education and training.

D. Environmental Inspection and Monitoring Plan

17. The inspection and monitoring plan in the EMP will serve as the template for assessing the potential adverse impacts caused by the project components, and identifying adequacy of protection measures implemented.

18. The plan defines the items to be inspected and parameters to be monitored, the frequency of inspection and monitoring, and the location of sampling. The environment supervisor appointed by Xiangsihu Development and Investment Company (XIDC-ES) will be in charge of conducting regular inspections and organizing periodical environmental monitoring for noise and air quality. The Environment Coordinators of the two schools (S-EC) will support XIDC-ES during field inspections.

19. The XIDC-ES will compile inspection and monitoring reports on a quarterly basis during construction. These reports will be shared with the contractors, and submitted to the relevant implementing agency (NVTs or NHS) and its implementing unit for information, as well as to the PMO-SO for review and appraisal. The PMO-SO will summarize the quarterly environmental inspection and monitoring results of the XIDC-ES into the quarterly project progress report prepared for ADB. More details on environmental inspection and monitoring will be included in the annual environmental monitoring and EMP progress reports prepared for ADB by the PMO-SO (with support of the LIS-ES). These will be disclosed on the project website.

Table EMP-3: Environmental Monitoring and Inspection Plan

Environmental Media/Issue	Location, Parameters, Monitoring Technique	Responsibility & Frequency
Pre-Construction Phase		
Project readiness	Method: Review of PMO's, implementing agencies, implementing units, and contractor's readiness to implement the project based on assessment of Project Readiness Indicators Parameters: Readiness indicators (Table EMP-4)	LIS-ES—once before construction
Construction Phase		
Soil erosion and contamination	Method, Location: Visual inspection of the construction sites; Parameters: (i) adequacy of soil erosion prevention measures; (ii) adequacy of soil contamination prevention techniques; (iii) evidence of excessive soil erosion or soil contamination (based on Site inspection checklist, Appendix 2)	XIDC-ES – every ten days during peak construction period, monthly after; LIS-ES - yearly
Solid and liquid waste management	Method, Location: Visual inspection of construction sites Parameters: (i) adequacy of solid and liquid waste management, storage and containment system; (ii) presence of solid waste dumps, waste fires (based on Site inspection checklist, Appendix 2)	XIDC-ES - every ten days during peak construction period, monthly after; LIS-ES – yearly
Construction site health and safety	Method, Location: Visual inspection and interviews with construction workers and contractors at construction sites Parameters: Site inspection checklist (Appendix 2)	XIDC-ES – every ten days during peak construction period, monthly after; LIS-ES – yearly

Environmental Media/Issue	Location, Parameters, Monitoring Technique	Responsibility & Frequency
Community health and safety	Method, Location: Visual inspection of the construction sites, informal interviews with TVET staff and students, and nearby residents. Parameters: (i) adequacy of construction site signage and fencing; (ii) adequacy of temporary noise mitigation measures; (iii) accidents involving public and workers; (iv) emergencies and responses; (v) public complaints about noise, air pollution, construction site safety, localized flooding, etc.	XIDC-ES – every ten days during peak construction period, monthly after; LIS-ES - yearly
Air quality	Method, Location: Air quality monitoring, at least 3 points per campus, around construction site, and at boundaries of sensitive receptors (dormitories, nearby residential areas) Parameters: TSP, PM10	Contractor- weekly during peak construction period; XIDC-ES – monthly during first two months of construction, quarterly thereafter, or in response to complaints
Noise	Method, Location: at 4 points at boundary of construction site, and at least 3 points around at boundaries of sensitive receptors (dormitories, nearby residential areas) Parameters: Leq dB(A)	Contractor- weekly during peak construction period; XIDC-ES – monthly during first two months of construction, quarterly thereafter, or in response to complaints
Construction Completion and Operation Phase		
Construction Completion Approval	Method, Location: NVTS/NHS formal application to local EPB; the approval / inspection procedure to be arranged by local EPB. Parameters: As required by local EPB requirement	NVTS/NHS – application before operation; Local EPB – environmental completion acceptance approval
Campus operation	Method, Location: NVTS/NHS campuses, audit to be arranged by ADB OD in consultation with local EPB and education department. Parameters: DMF, EMP, others as required by local EPB.	ADB OD, local EPB – once after one year of operation (during review mission), before PCR is issued.

20. **Assessment of project readiness.** Before construction, the LIS-ES will assess the project's readiness in terms of environmental management based on a set of indicators (Table EMP-4) and report it to ADB, PMO, XIDC, NHS, and NVTS. This assessment will demonstrate that environmental commitments are being carried out and environmental management systems are in place before construction starts, or suggest corrective actions to ensure that all requirements are met.

Table EMP-4: Project Readiness Assessment Indicators

Indicator	Criteria	Assessment	
EMP update	The EMP was updated after detailed design, and approved by ADB	Yes	No
Compliance with loan covenants	The borrower complies with loan covenants related to project design and environmental management planning	Yes	No

Indicator	Criteria	Assessment	
Public involvement effectiveness	Meaningful consultation completed; GRM established with entry points	Yes	No
Environmental Supervision in place	LIS-ES is in place	Yes	No
	XIDC-ES appointed	Yes	No
	PMO-SO appointed	Yes	No
	S-EC assigned	Yes	No
Bidding documents and contracts with environmental safeguards	Bidding documents and contracts incorporating the environmental activities and safeguards listed as loan assurances;	Yes	No
Contractor readiness	Site-EMPs prepared by contractors, reviewed and approved by XIDC-ES, PMO-SO	Yes	No
EMP financial support	The required funds have been set aside to support the EMP implementation according to the financial plan.	Yes	No

21. **Environmental monitoring and inspection cost estimates.** Costs for environmental monitoring and inspection include salaries and consultancy fees for the PMO-SO, the LIS-ES, LIS-EMS specialists and the XIDC-ES, as well as costs for the environmental monitoring performed by the XIDC-ES. The salary costs of the PMO-SO and LIS-ES will be covered by the EA; the salaries of the XIDC-ES will be covered by the XIDC. Air and noise monitoring costs will amount to approximately \$3,000 per school over 2 years. These expenses will be covered by XIDC.

E. Institutional Strengthening and Training

22. The capacity of the implementing units, implementing agencies, and the PMO's staff responsible for EMP implementation and supervision will be strengthened. All parties involved in implementing and supervising the EMP must have an understanding of the goals, methods, and practices of project environmental management. The project will address the lack of capacities and expertise in environmental management through (i) institutional strengthening, and (ii) training.

23. **Institutional strengthening.** The capacities of the PMO, implementing agencies, and implementing units to coordinate environmental management will be strengthened through a set of measures:

- (i) The appointment of a staff member within the PMO (PMO-SO) in charge of EMP coordination, including GRM;
- (ii) The appointment of one national environmental consultant under the loan implementation consultancy to guide PMO and IAs in implementing the EMP and ensure compliance with ADB's Safeguard Policy Statement (SPS 2009);
- (iii) The appointment of an environment specialist by the XIDC (XIDC-ES) to conduct regular site inspections and coordinate periodic air and noise monitoring; and
- (iv) The assignment of one member of NVTs and NHS to act as school environment coordinator (S-EC) during construction and operation.

24. **Training.** The executing agency, PMO, implementing agencies (NVTs, NHS, and XIDC) and IUs will receive training in EMP implementation, supervision, and reporting, and on the Grievance Redress Mechanism (Table EMP-5). Training will be facilitated by the LIS-ES with support of other experts under the loan implementation support (LIS).

Table EMP-5: Training Program

Training Topic	Targeted Agencies	Timing	Duration, Costs
EMP Implementation: Roles and Responsibilities, Monitoring, Supervision and Reporting Procedures, Review of Experience (after 12 months)	PMO, NVTS, NHS, XIDC, IUs, Contractors	Once prior to, and once after one year of project implementation	2 x 0.5 day, \$1,000
Grievance redress mechanism: Roles and Responsibilities, Procedures, Review of Experience (after 12 months)	PMO, NVTS, NHS, XIDC, IUs, Contractors community representatives, Contractors	Once prior to, and once after one year of project implementation	2x 0.5 day, \$1,000

EMP = environmental management plan, PMO = project management plan, NVTS= Nanning No. 4 Vocational and Technical School, NHS = Nanning Health School, XIDC = Xiangsihu Development and Investment Company.

F. Environmental Reporting

25. **Project progress reports.** The executing agency will provide ADB with (i) Project quarterly progress reports in a format consistent with ADB's project performance reporting system; (ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions, (c) updated procurement plan, and (d) updated implementation plan for next 12 months; and (iii) a project completion report within 6 months of physical completion of the project.

26. The quarterly progress reports will also include a summary of EMP implementation status, results of inspections conducted by the XIDC-ES, problems encountered during construction and operation, if any, and the relevant corrective actions undertaken.

27. **Yearly environmental progress reports.** To ensure proper and timely implementation of the EMP and adherence to the agreed environmental covenants, the PMO shall submit to ADB yearly environmental progress reports, based on the quarterly inspection and monitoring reports of the XIDC-ES. The LIS-ES will support the PMO in developing the annual reports. The report should confirm the project's compliance with the EMP, and identify any environment related implementation issues and necessary corrective actions. The performance of the contractors will also be reported on with respect to environmental protection and impact mitigation. The operation and performance of the project GRM, environmental institutional strengthening and training will also be included in the report. Table EMP-6 summarizes the reporting requirements.

Table EMP-6: Reporting Requirements

Report	Frequency	Purpose	From	To
Inspection and monitoring reports	Quarterly	Confirmation of contractors compliance with EMP, presentation of monitoring results	XIDC-ES	Contractors, implementing agencies, PMO, LIS-ES
Project Progress Reports	Quarterly	General project progress, including summary of EMP implementation	PMO	ADB
Annual Environmental Progress Report	Annually	Adherence to Environmental Covenants and EMP, presentation of monitoring results	PMO, LIS-ES	ADB

G. Mechanisms for Feedback and Adjustment

28. Based on environmental monitoring and reporting systems in place, the PMO shall assess whether further mitigation measures are required as corrective action, or improvement in environmental management practices are required. The effectiveness of mitigation measures and monitoring and inspection plans will be evaluated by a feedback reporting system. If the PMO identifies a substantial deviation from the EMP, or if any changes are made to the project scope that may cause significant adverse environmental impacts or increase the number of affected people, then the PMO shall immediately consult ADB to identify EMP adjustment requirements.

H. Cost Estimates for Environmental Management

29. The total project cost for the Guangxi Nanning Vocational Education Development Project is approximately \$ 103.260 million. The environmental protection related cost is \$ 227,000 of the total project budget. The major environmental protection costs include protection and mitigation measures during construction, institutional strengthening (salary costs for counterpart environment experts), environmental management training, and development and implementation of the Green Campus Policy for the NVTs and NHS campuses. Excluded from the costs estimates are infrastructure costs which are included in the project direct costs. Cost estimates for mitigation measures, environmental monitoring, public consultations, and capacity building are summarized in Table EMP.7.

Table EMP.7: Cost Estimates for EMP Implementation and EMS Capacity Building

Item	Costs per contract or school (USD)	Total (USD)	Costs covered by
Environmental mitigation during construction - Erosion control - Dust control - Noise control - Solid waste control - Site safety and hygiene - Traffic management - Site re-vegetation - Contractor environment coordinator (salary)	13,000 (per civil works contract)	52,000	Contractors (contracts CT01, CT02, CH01, CH02)
	12,000 (per civil works contract)	48,000	
Environment impact monitoring - Periodic air and noise quality monitoring during construction - Completion environmental and safety audit	3,000 (per school)	6,000	XIDC operational budget
	1,000 (per school)	2,000	
Counterpart environmental staff			
XIDC-ES (salary, site inspections)		40,000	XIDC operational budget
PMO-SO (salary, GRM coordination, reporting)		10,000	NNDRC operational budget
Project implementation consultants: - LIS-ES (national, 3 person-months, including consultant fees, travel costs, per diem) - EMS specialist (international, 1 person-month, including consultant fees, travel costs, per diem) - EMS specialist (national, 3 person-months, including consultant fees, travel costs, per diem)		18,000	Project implementation support (Loan package SO2)
		20,000	
		18,000	
Training and capacity building: - EMP implementation & GRM -EMS: on-the-job training on approaches and steps to develop campus-wide EMS - EMS: auditor training - Exchange and study tour to one of the members of the China Green University Network		2,000	Project capacity building (Loan package SO2)
		2,000	
		1,000	
		8,000	
Total (USD)		227,000	

Source: Local EIA report (TEIAR) + PPTA consultant

30. During project implementation, the budget will be adjusted based on actual requirements. Contractors will bear the costs of all mitigation measures during construction, which will be included in the tender and contract documents. NVTs and NHS will bear the costs related to mitigation measures during operation (not covered here). Costs related to environmental inspection during construction will be borne by the XIDC. Training costs will be borne by the project as a whole.

APPENDIX 3: ETHNIC MINORITY ASSESSMENT AND PROJECT DESIGN MEASURES

A. The Project

1. The Guangxi Nanning Vocational Education Development Project, (the project) will extend and improve quality and relevance of technical and vocational education and training (TVET) in two schools, the Nanning Health School (NHS) and the Nanning No. 4 Vocational and Technical School (NVTs) in Nanning Municipality, Guangxi Zhuang Autonomous Region (GZAR). The proposed project will play a demonstration role for the sector and other provinces, seeking to provide quality and extended public social services.

2. Strengthening social services is a priority under the People's Republic of China (PRC) Government's Five-Year Plan, which outlines measures to establish a "sound and sustainable basic public service system" with a focus on public education and medical care. The National Medium and Long – term Education Reform and Development Plan (2010–2020) calls for preschool education to be compulsory so that by 2020, one-year preschool will become the norm. The National Health Care Reform strategy includes strengthening primary health care services, elderly care and the number of trained grassroots health workers. The Three-Year Action Plan for Preschool Education Development in GZAR (2011–2013) will build, renovate or expand 6,628 preschools to increase enrolment to 1.33 million and will need to employ an additional 21,000 teachers. Development of TVET provision for preschool education and nursing is urgently needed to meet these goals. It is also pointed out in various policy documents that TVET development should focus on ethnic minority areas, rural and poor areas.³²

3. All TVET students will benefit from project interventions, including ethnic minorities. The project will help them obtain skills and gain access to professional careers and employment opportunities. No project activities will adversely affect ethnic minorities and none are affected by resettlement or land acquisition. There are no adverse impacts on communities surrounding the project TVET institutions. The poverty and social assessment determined that ethnic minority students are well integrated into the project TVET institutions and face no barriers to enroll in TVET. In 2012 the percentage of ethnic minority students in the pertinent three majors (kindergarten teachers, nurses, rural doctors) at two TVET schools was 64.5% while the ethnic minority percentage of Nanning Municipality is 53%. Increased quality of TVET as a result of the project will benefit all students as well as the general public. The student population's ethnic composition is a reflection of the ethnic composition of the Nanning Municipality at large.

B. Project Components

4. The project has four components: (i) TVET capacity building for kindergarten teachers and nursing, in which activities include competency-based curriculum development, teacher training and continuing professional development, creation of an elderly care curriculum, school-industry partnerships, human resources development, and outreach; (ii) implementation of pilots: training base kindergarten at NVTs and rural training base with NHS;³³ (iii) upgrading of facilities and equipment: construction of phase

³² PRC's Vocational Education Law, 1966; Nanning Municipality Ethnic Minority Education Regulation, 2005; Nanning Municipality Ethnic Minority Twelfth Five-Year Plan, 2011.

³³ The training bases are designed to provide practical training in on the job skills for students from the kindergarten and nursing program. The kindergarten training base will be located on the NVTs campus and serve children from the surrounding communities. Students and teachers will practice teaching, test new methods and conduct action research at the training base. The rural training base will be run by NHS for

II for the new NHS campus and construction and upgrading of facilities and equipment at NVTS; and (iv) project management support for the PMO and schools in project management and monitoring.

C. The Project Schools

5. The project supports two schools: NHS and NVTS. NVTS has a program for training kindergarten teachers, which has expanded from 617 students in 2009 to 1,009 in 2012. NHS at present has 3,300 students, out of which 2,000 are nursing students. Kindergarten teachers and nursing students are 98% female and, rural doctor students are 40% female. For both schools, some 94% of the students are from rural areas, and 84% of the rural doctor students come from rural areas. Proportions of students coming from poor areas (as defined by national criteria) are 28%, 36%, and 41% respectively for kindergarten teachers, nursing, and rural doctor students. Most students are exempt from tuition fees,³⁴ and there are extra subsidies for supporting poor students and students from rural areas. In general, the project provides for career and employment opportunities for a substantial number of students from rural and poor areas. These opportunities serve mainly women. The employment rate of graduates from both schools is close to 100%.

D. Ethnic Minorities at the Project Schools

6. In GZAR, the total population is 46.03 million, with the Han comprising some 62.8% and ethnic minorities 37.2% of the population. Fifty different ethnic minority groups are in the autonomous region, the largest being Zhuang who constitute 31.4% (84% of ethnic minorities). Nanning Municipality has a total population of 7.07 million. Of this total, Han constitute 47%, ethnic minorities constitute 53% with the Zhuang making up 96% of the total ethnic minorities. The other 2% is made up of other ethnic groups such as Yao, Miao, Mulao, Dong and Hui. These groups comprise, in descending order, from 0.93% to 0.15% of the total population.

7. In NHS and NVTS, the ethnic composition of students and staff reflects that of the society at large. Table 1 below illustrates ethnic composition in the different subjects among the teachers and the students.

Table 1: Number of Teachers and Students by Ethnicity at Nanning Health School and Nanning No. 4 Vocational and Technical School

Item	School	Subjects		
		Preschool	Nursing	Rural doctor
Teachers	NVTS	114	-	-
	NHS	-	50	13
	NVTS	70	-	-
	NHS	-	34	7
EM Proportion		61.4%	68.0%	53.8%
Students	NVTS	2467	-	-
	NHS	-	4,880	340

nurses and rural doctors. This training base will be located at a township level hospital and provide students exposure to health issues and health care provision in rural areas.

³⁴ Since the autumn of 2012, national policy has allowed tuition fees to be exempted for three years for all TVET students from rural area (including county and town/township) and from urban poor families. The tuition fee for GZAR administered TVET is CNY 2,200 per capita per year and CNY 2,000 for municipality administered TVET. The national subsidy policy also changed in 2012 to allow newly recruited TVET students for agriculture majors or from poor families to have two years of living subsidy at CNY 1,500 per capita per year.

Item	School	Subjects		
		Preschool	Nursing	Rural doctor
	No.4	1,310	-	-
	Within it: Zhuang	1,231	-	-
EM students	Health	-	3,450	200
	Within it: Zhuang	-	3,232	171
EM Proportion		53.1%	70.7%	58.8%
Zhuang Proportion		49.9%	66.2%	50.3%

EM = ethnic minorities, NHS = Nanning Health School, NVTS = Nanning No. 4 Vocational and Technical School.

Source: 2013 data acquired from the two schools.

8. There are a number of policies providing special support for ethnic minority students and for students coming from remote and/or poor areas:

- (i) The *PRC's Vocational Education Law* (issued in 1996), in which item 7 states, "The state will take measures to develop rural vocational education, especially to support the TVET development of ethnic minority, remote and poor areas."
- (ii) *Nanning Municipality EM Education Regulation* (issued in 2005) Item 16 "municipal-owned TVET should recruit more students from poor and remote ethnic minority areas; appropriate tuition reduction or exemption and employment help should be provided for EM students from poor families." Since the autumn of 2012, Nanning began to implement the new national policy "*Notice of Implementation of the Opinion of Expanding TVET Tuition Fee Exemption Policy and Further Improving National Subsidy System*" (details see footnote 3). The policy is not specially targeted at EM students. However local EM students can equally benefit from this policy. Most of students are exempt from tuition fee now, but many students have to pay part or all of their living costs.
- (iii) *Nanning Municipality EM Develop Twelfth-Five Planning* (issued in 2011) "Continuously doing well in basic education and vocational education ... vigorously develop vocational and technology education and training and make efforts to improve labor quality in the ethnic minority areas."

9. In three counties (Mashan County, Shanglin County, and Longan County), the rural poverty rate is around 45%, and in one district (Yongning District) 33%. The incidence of poverty is markedly higher in those areas, compared to the other districts and counties. In those areas, the ethnic minority comprises 83–95% of the population, which is also higher than in other areas. The three counties and one district are mainly rural (86–92%, as per "*hukou*" statistics), and as the majority of the project school students come from rural areas. These areas of Nanning are expected to benefit from the project accordingly.

10. The poverty and social assessment concluded that ethnic minority students are well integrated academically, socially and economically into both project TVET institutions. They receive various subsidies according to socio-economic status and rural registration. The ethnic composition of the student population reflects the ethnic composition in Nanning Municipality at large. In rural areas, where there are also large numbers of elderly, many the project's end beneficiaries will be using local languages and customs.

E. Financing of students

11. The poverty and social assessment and consultations have determined that affirmative government policies exist for admissions to tertiary education, and that there

will be no adverse impacts under the project. Three levels of national, provincial and municipal finance are available to support the costs of TVET tuition fees, textbooks and living costs. The tuition fee support for GZAR administered TVET is CNY2,200 per capita/year and CNY2,000 for municipality administered TVET. The living subsidy is CNY 1,500 per capita/year.

12. Almost 100% of poor TVET students in the project TVET institutions currently benefit from financial support relevant to their poverty status. Youths who are certified as belonging to rural families or urban families with low incomes are able, with this financial support from the government, to access the education at TVET institutions with the expectation of increasing their chances for improved livelihoods.

Table 2: Technical and Vocational Education and Training Financial Assistance and Student Beneficiaries at Project Schools

Institution name	Students from rural area (%)	Poor students (%)	Tuition Exemption (%)	National Subsidy (%)
NVTS	92	28	98	62
NHS	98	38	72	34

NHS = Nanning Health School, NVTS = Nanning No. 4 Vocational and Technical School.
Source: Poverty and Social Assessment conducted by PPTA consultants in 2012.

13. In 2012, 98% and 62% of all NVTS students were exempted from tuition fees and received national subsidy; the figures were 72% and 34% for NHS. Besides, some excellent students (about 20%) will get the municipal scholarship. The municipal poverty alleviation office and GZARG will also administer a poverty alleviation fund for poor students, especially those from Big Stone Mountain Area, which includes the three national-level poverty counties. To put the extent of available subsidy in context the living cost of a TVET student approximately CNY600 per capita per month, so families need to cover the balance.

14. Although there are a number of financial support mechanisms and subsidies, both schools suggested interventions to further promote students from poor and remote and/or ethnic minority areas. One area for further work is in recruitment of students from rural areas. More resources are needed for reaching these areas and there is some interest at the schools in developing more flexible courses, which allow students to have part-time employment and contribute to family income. The activities under the human resources component support outreach recruitment efforts in rural areas and will also try to address gender stereotypes in recruitment for specific majors.

F. Technical and Vocational Education and Training Curriculum

15. Nanning Municipality is endowed with a rich ethnic diversity, only a small part of which is currently expressed in the curriculum and training. To take advantage of this variety, ethnic culture, such as Zhuang arts and crafts, music and folktales will be included in the curriculum for preschool teachers. This activity will also involve the production of teaching aids. Many rural students can speak Zhuang, which is learned from their families and not from the school. The written Zhuang language was transformed in the 1960's, from using Chinese characters to using the Latin alphabet. However it is not used very often. In 2012, Zhuang- Mandarin bilingual teaching trials were conducted in 21 primary schools in Nanning Municipality. Some Zhuang language teaching trials have also been conducted in some junior high schools in ethnic minority areas.

G. Employment and Future Prospects

16. Employment rates of TVET graduates from the NHS and the NVTS are just about 100%. Likewise, the future employment prospects are very good, considering the planned intake and the planned extension and upgrading of the public social services in the municipality and broader PRC.

17. From NHS, some 50% of the students go back to their original rural areas; in most cases they settle and gain employment in the nearby townships. The long-term benefits for ethnic minority inclusion and development come from having well trained ethnic minority teachers and health service personnel capable of providing quality services in local languages and in culturally appropriate ways. In one preschool class with 33 students, 30% wanted to go back to their original area but claimed that there were no provisions for them to do that, such as limited existing preschools. This is a situation that will soon change with the construction and staffing of more kindergartens. Most of the nurses from NHS work in the public sector. However, 30% of the rural doctor students, the massage and the Chinese Medicine students build their own businesses. For NVTS, very few preschool graduates go to the public sector, but mainly work in the private sector.

18. It was difficult to find teaching tools and materials reflecting the cultural diversity and variety in Nanning Municipality, although there have been attempts to include this in the TVET schools, mainly for preschool education. Creation of materials and teaching guides on ethnic minority culture will be one of the activities under the project.

H. Conclusions and Agreed Design Features

19. The project will improve the extent and quality of the two schools in Nanning Municipality. All TVET students will benefit from project interventions and this includes ethnic minorities who comprise the majority. The project will help the students to obtain skills and access to employment opportunities. The rate of employment after graduation is very high, with an overwhelming majority of the students for both schools going into the public sector. There are scholarships and other financial support, and most of them are distributed according to poverty criteria. The studies and consultations so far indicate that ethnic minority students are well integrated in the two schools and are likely to remain so in the future.

20. The Zhuang maintain their own culture, displayed in clothing, language, music, and traditions. At the same time, they are well integrated in the mainstream society, as they themselves constitute an important part of the mainstream. Their language is still maintained, but most of the Zhuang speak Mandarin because all students learn Mandarin in primary school although there are some new trials on implementing Zhuang-Mandarin bilingual education in some selected primary schools. In terms of policies and statistics, the Zhuang ethnic minority is supported and well represented, and as a response to their unique ethnic identity, Guangxi is designated as the Guangxi Zhuang Autonomous Region.

21. Other groups, such as the Yao account for only 0.93% of the population in the municipality and are located primarily in two counties: Mashan and Shanglin, which are both national level poor counties. The consultations conducted in Shanglin County by the PPTA consultants confirmed that the majority of Yao speak both Zhuang and Mandarin. As stated above, one of the key activities to ensure inclusion in the project is under the human resources component, which seeks to improve recruitment methods and outreach in rural and disadvantaged areas.

22. In terms of statistics and policies regarding ethnic minority students and staffs in the project schools, the ethnic minority issue is quite clear—it is really not an issue.

However, there are areas where the project has design features to ensure inclusion and enhance benefits. These include

- (i) Under the component on curriculum development for the kindergarten program, activities to support development of teaching materials and guides which highlight ethnic minority culture and history will be done. These materials will also be used in the kindergarten training base. This activity is in the social action plan and will be monitored.
- (ii) Under the human resources development component, efforts to increase recruitment in rural areas and to address gender issues in TVET major choice will be addressed. An information education and communication plan and outreach program on TVET training opportunities in rural areas with special attention to gender issues in career choice (i.e., male kindergarten teachers, new opportunities in elderly care, etc.) is a part of the human resources component. Both of these activities are also in the gender and social action plans and will be monitored.
- (iii) Under the elderly care curriculum development component, a report on social inclusion and ethnic minority issues in elderly care will be prepared and this is included in the social action plan and will be monitored. In addition, one of the key research activities funded under the project will focus on the development of the elderly care industry and TVET provision in Guangxi. Under this research issues of inclusion will be examined.
- (iv) Social indicators (including ethnicity, *hukou*, and sex) will be included in monitoring tools such as the tracer studies. This is in the social action plan and will be monitored.
- (v) A social and gender expert with expertise in ethnic minority issues will be part of the project management consultant team. Terms of reference for this position are included in Appendix 7 of this PAM

I. Responsible Persons

23. Design and implementation of the ethnic minority curriculum for the kindergarten program will be done by the curriculum development consultants with support from the project social specialist. The study for the elderly care will be done by the elderly care curriculum consultants with support from the social specialist. The research activity will be conducted by a suitable research institution. Outreach strategies for rural area recruitment will be developed by the schools and the human resources consultants with support from the social consultant. Social indicators will be included in the PPMS and other monitoring tools, such as the tracer studies by the relevant consultants and project schools. All activities are included in the social action plan which will be regularly monitored, reported on and assessed in the PPMS and regular ADB reviews.

J. Budget

24. All activities are a part of project design and fully covered in the component costs and consulting services budget.

**APPENDIX 4: PROFILES OF THE PROJECT TECHNICAL AND VOCATIONAL
EDUCATIONAL AND TRAINING INSTITUTIONS**

**Table 1. Nanning No. 4 Vocational and Technical School
Yongning campus (preschool teacher training site) Profile (2012)**

Nanning No 4 Vocational School (Yongning Campus) 2012		
Number of Teachers: 114	Female: 63 (55%)	Male: 51 (45%)
Qualifications	<i>Total Teaching Staff</i>	<i>Female Teaching Staff</i>
College and below	2	1 (50%)
Bachelor's degree	108	58 (53.7%)
Master's Degree	4	4 (100%)
PhD	0	0
Teachers of ethnic minority	70 (61%) of total teaching staff	
Teachers with rural background	96 (84%) of total teaching staff	
Teachers' age distribution	<30 years: 22 (19%) 31-40 years: 36 (32%) 41-50 years: 50 (44%) 51-60 years: 6 (5%) >60years: 0	
Teachers' classification by duty	Basic (general) subjects: 58 Technical subjects: 56 Trainers: 28 'Double qualified': 30% Contract teachers: 22	
Teachers' Technical background	Graduated from pre-school related program: 1 Graduated from teacher's college/normal university: 113 Worked in related institutions (kindergarten): 0	
Number of Other Staff: 52	Female: 32 (61.5%)	Male: 20
Number of Students: 2467	Female: 2435 (98.7%)	Gender Balance: 1:76 (male to female)
Students from rural areas: 2276 92.3%	Students from poor families: 27.7%	
Graduation Rate: 100%	Employment Rate: 100%	

Table 2. Nanning Health School Profile (2012)

Nanning Health School 2012		
Number of Teachers overall: 238	Female: 131 (55%)	Male: 107 (45%)
Qualifications (for whole school)	Total Teaching Staff	Female Teaching Staff
College and below	21	7 (33.3%)
Bachelor's degree	212	119 (56.1%)
Master's Degree	5	5 (100%)
PhD	0	0
Nursing Teachers: 45	Female: 34 (76%)	Male 11(24%)
Nursing Teachers of ethnic minority	32 (71%) of total teaching staff in Nursing	
Nursing Teachers with rural background	28 (62%) of total teaching staff in Nursing	
Rural Health (Rural doctor) Teachers: 13	Female: 3 (23%)	Male 10 (77%)
Rural Health Teachers of ethnic minority	7 (54%) of total teaching staff in Rural Health	
Rural Health Teachers with rural background	8 (62%) of total teaching staff in rural Health	
Teachers' age distribution (for whole school)	<30 years: 48 (20%) 31-40 years: 71 (30%) 41-50 years: 79 (33%) 51-60 years: 40 (17%) >60years: 0	
Teachers' classification by duty	Basic (general) subjects: 59 Technical (TVET specific) subjects: 179 Trainers: 27 'Double qualified': 158 Contract teachers: 21	
Number of Students (whole school): 11,776	Gender Balance: 1:43.3 (male to female)	
Students from rural areas (whole school): 77.6%	Students from poor families (whole school): 26.5%	
Graduation Rate (whole school): 84.3%	Employment Rate: 96%	

APPENDIX 5: STRATEGIES FOR TVET CAPACITY STRENGTHENING IN THE PROJECT SCHOOLS

Overview

1. The technical and vocational education and training (TVET) capacity strengthening output has been designed to comprehensively address capacity building needs in both schools. The objective is to improve capacity and quality at the project schools and to provide well-documented examples and capacity building frameworks and materials that can be transferred to other schools in Nanning Municipality and beyond. It includes (i) general approaches and creation of frameworks and materials, which will be put in place in both schools; (ii) targeted interventions at each school, which will create important demonstration features that can be shared, and (iii) systemic approaches to improving TVET management and creating exchange partnerships to foster best practices. The output includes:

- (i) General approaches for TVET strengthening in the areas of:
 - a. Curriculum Development
 - b. Teacher Training
- (ii) Targeted interventions at each school:
 - a. Nanning Health School (NHS): Creation of elderly care curriculum and a rural training base pilot for e nursing and rural doctor students; and
 - b. Nanning No. 4 Vocational and Technical School (NVTs): Creation of a kindergarten training base.
- (iii) System approaches:
 - a. Human resources management, planning, leadership.
 - b. Industry partnerships and development of tracer studies.
 - c. National, regional, and international partnerships.

2. The approaches outlined above will be supported by the TVET capacity strengthening consultants. To complement these activities the output will also support (i) exposure to good practices nationally and internationally through targeted study tours designed to focus on key areas, such as model kindergartens, elderly care, public health, TVET management and leadership, TVET school environmental management systems; (ii) on-the-job training opportunities for staff and management; (iii) creation of national and international partnerships to support (a) research activities, (b) mentoring, and (c) sustainable capacity building.

3. In addition, two policy research studies will be conducted by university or research institutions. The topics will be (i) an in-depth assessment of elderly care in Nanning Municipality and Guangxi Zhuang Autonomous Region (GZAR). The study will focus on needs, constraints, impacts on health services and labor market, and the role of TVET providers in creating a supply of qualified graduates; (ii) creation of a training system for in-service and pre-service kindergarten teachers. This study will build on the frameworks to be designed for the NVTs, and design a training system, which can be applied in Nanning Municipality and GZAR to address (a) in-service training needs for existing kindergarten teachers who are currently uncertified; (b) continuing professional development for kindergarten teachers to ensure that the changes anticipated by reform at the national level of the kindergarten curriculum and approaches are truly adopted; and (c) pre-service training for kindergarten teachers to ensure that reforms in curriculum and pedagogy are fully understood and adopted. Both studies will have important policy and program implications. They are supported by Nanning Education Bureau (NEB) and Nanning Health Bureau (NHB), and both bureaus will participate in the dissemination of their findings.

4. An international conference will be supported by the project and managed by the executing agency, schools, NEB and NHB. The tentative topic will be on the implications of Association of Southeast Asian Nations for TVET provision and development in GZAR and Nanning Municipality.

5. The following sections outline the specific strategies for TVET capacity strengthening. As mentioned above, the strategies will be supported by international and national consultants and further institutionalized through the accompanying training program.

A. Strategies for establishing Competency-Based Curriculum

6. The People's Republic of China's (PRC) National Medium- and Long-term Education Reform and Development Plan (2010–2020) has identified a number of shortcomings within the TVET sector. These include outdated curricula, which are inflexible and impose a heavy burden on learning. Reforms proposed in the Plan focus on quality improvement in curriculum development and teaching, and on building strong school and industry partnerships to promote competency-based curriculum (CBC) development. CBC development is a major initiative for ensuring quality and professional development for teachers. It is one of the major actions in the education sector to help to achieve Education for All (EFA).

7. Many of the courses currently for nursing students at NHS are not well-linked to competencies and knowledge that will be important in future jobs. Some fundamental professional courses are overlooked, and several competencies, such as interpersonal and communication skills, practical and experiential teaching, and clinical exposure are lacking. Much of the teaching takes place in large classes and is teacher centered and lecture based. At the NVTS, the kindergarten program has many similar issues with the curriculum, which lacks core courses in areas such as student assessment and special education and overemphasizes practical skills such as dancing and singing over skills such as pedagogy, child development, curriculum planning and class management.

Outcome

8. The project will develop and implement CBC development for both schools. This will enhance TVET quality and training capacity in NHS and NVTS through introduction of CBC in all its faculties and departments.

Strategies

9. Development and implementation of a CBC requires major changes in education and training practices. It entails the development of a CBC framework and associated student-centered active learning and authentic assessment. The project will support the development and implementation of the CBC framework, the associated assessment instruments, and the training packages to guide TVET provision in the two target schools.

10. The framework will strengthen generic non-discipline specific CBC development and implementation in both target schools and will be used as a framework for specific kindergarten teacher training at NVTS and for nurse training, elderly care training and rural doctor training at NHS. The framework will be used for improving and strengthening the curriculum in other majors in both institutions and can serve as a model at provincial and national levels, respectively.

11. Development and implementation of CBC in this project will (i) be used as a platform for innovation, by integrating theory and praxis, enhancing classroom based

and institutional research, and promoting learner centered teaching-learning and 'authentic' assessment, in order to bring about innovative pedagogies; and (ii) lead to highly skilled and employable graduates. Based on international experiences and best practices, the development of model CBC requires a paradigm shift.

12. The curricula will be (i) developed for the respective disciplines as a whole, (ii) based upon job functions, and (iii) developed across a number of levels and integrate employability skills and knowledge with technical skills and knowledge. In addition to the technical knowledge, skills and abilities, the curriculum will also include 'soft skills', such as (i) creative thinking, (ii) communication skills, (iii) problem solving skills, (iv) lifelong learning, (v) entrepreneurial skills, (vi) interpersonal skills, and (vii) team work and leadership. The CBC will (i) cover existing and strengthened discipline-occupational specific competencies (knowledge, skills, and abilities); (ii) introduce and incorporate discipline-occupational methods competencies (the know-how, creativity, problem solving); (iii) social-communicative competencies (team work and leadership, reporting, presentations); (iv) self-development competencies (self-realization in personal and professional life, lifelong learning, community involvement).

13. In addition to the establishment of the framework and general principles in CBC, extra assistance and emphasis will be given to the development of several new courses for each of the majors. This will be done with the assistance of content specialists. In the nursing major the courses will be (i) interpersonal communication (particularly with patients); (ii) nursing occupational risk management; and (iii) elderly dental care. In the kindergarten teaching major the courses will be: (i) integrating ethnic minority culture in kindergarten education; (ii) student assessment methodologies; (iii) addressing special needs children in kindergarten; (iv) early child education for 0-3 years, and; (v) creating safe and successful learning environments for kindergarten schools.

14. The curriculum development process will be led by the Vice-Principal responsible for curriculum of the respective school. Strengthening the curriculum by formulating it as an integrated theory-praxis, CBC will be a catalyst for improving the quality of relevant TVET provisions and can be used as a blueprint for improving the relevance of TVET programs in Nanning and throughout and beyond GZAR. Instructors from both project schools will have access to intensive curriculum development training and in turn, will assist in training others across the system. The lessons learned from this curriculum development process will be disseminated to the GZAR TVET system as a whole.

Activities

15. **Working groups.** The project will set up two working groups, one for the kindergarten teacher training program at NVTs and another one at NHS for nurse training. Each working group will include membership from the relevant industry advisory groups, industry practitioners, enterprises, NEB, representatives of school (students, teachers, leaders, and administrators), and project consultants in the two disciplines (kindergarten teaching and nursing).

16. **Development of framework curriculum and core standards.** With support of project consultants, each working group will undertake an occupational/functional analysis of tasks and will identify industry competency standards, to be validated by industry. In collaboration with the projects consultants, a review committee will review and validate the curriculum framework. Such curriculum framework is important as a blueprint for other TVET institutions offering courses or programs in the same industry area. The core standards embedded in the curriculum framework describe detailed processes that TVET institutions should follow throughout the curriculum development

or curriculum strengthening processes. Core standards concentrate on areas, such as pedagogy and assessment, and not on content.

17. Develop core descriptors for employability skills to be contextualized across technical curricula. Employers increasingly require generic employability skills, which are at least as important, and in some cases more important, than technical skills and knowledge. Industry surveys internationally find that the most important skills and knowledge required by employers are generic skills related to 'how to work', for example: team work, communication skills, self-discipline, following instructions, applying technology, and numeracy. There is much evidence based on international research to show that these competencies are best learned in context rather than in the abstract. Yet in many TVET institutions in the PRC, they continue to be taught at the theoretical and at times abstract levels, and not connected to work practice. Both project TVET institutions indicated that they undertook industry surveys as part of curriculum development. However, these surveys focus mainly on technical skills or theoretical knowledge rather than core competencies. Therefore, curriculum reflects the tasks but not the integration of core skills and knowledge. Employability skills are critical crosscutting skills which are particularly important in the fast changing health sector. The project consultants, together with the working groups, will identify descriptors of employability skills and will ensure their inclusion in the revised curriculum.

18. Develop effectiveness and efficiency measures to assess the quality of the strengthened curriculum. The working group, together with the project consultants, will develop qualitative and quantitative measures to assess the quality of the strengthened curricula developed within the new curriculum framework. Assessment standards will include a focus on 'soft skills'. An assessment framework will be created with support from the consultants. Teachers will be trained to become proficient in CBC TVET assessment strategies and processes.

19. Improved curriculum template and guidelines development. The project will support NHS and NVTs in developing municipal level curriculum standards, a template, and guidelines on CBC development. The purpose of this template can be used as a platform to compare curricula across providers and across courses and leads to greater consistency in identifying the skills, knowledge, and attributes that graduates can apply when employed (see for example Bologna Process as an international 'best practice'). Based on the developed template, the project consultants and the respective working group will develop a guidebook for using the template.

20. Competency-based curriculum teaching: learning materials development. The project will develop generic training delivery strategies and interactive learner-centered teaching and learning materials, with an emphasis upon the practical application of skills, knowledge, and attitudes. Teaching and learning materials will be developed for the two demonstration majors, and will be formalized in consultation with the relevant working groups. The project will review training materials to identify opportunities to remove gender stereotypes. The project will also identify how information and communication technology for TVET, including training simulation software can be integrated into the curriculum. The project will provide for the cost of the teaching and learning materials, consultant and local experts, consultation workshops, and printing of the materials.

21. Curriculum and content development in selected new courses. Both schools will create new courses to address changes in curriculum reform and emerging changes and good practices in industry. The project will develop content and curriculum for the following new courses: (i) NHS: interpersonal communication, nursing occupational risk management, and elderly dental care; and (ii) NVTs: ethnic minority culture for kindergarten, kindergarten student assessment methods, addressing

kindergarten education for children with special needs, early childhood education and development (0-3 years), and safety and security in kindergarten environments.

22. **Competency-based curriculum training.** Based on the above, the project consultants on curriculum and training, in collaboration with NHS and NVTS, respectively, will design a training program on CBC development. The schools will review and validate the training module and the Teacher Training Divisions will organize the training delivery with the assistance of project consultants. The first group of trainees will be teachers/instructors from the two project TVET institutions responsible for CBC development. Subsequently this training can be delivered to non-project schools at their own cost.

23. **Gender equity and social inclusion.** The CBC strategies shall address gender equality and gender stereotypes and ensure that equity and participation are embedded in all aspects of CBC and associated teaching-learning methods and assessment methods. The CBC will also address social inclusion, including specific attention to creating new curriculum on ethnic minority culture for the NVTS.

Sustainability

24. Sustainability will be achieved through the following approach:

- (i) Institutionalization of CBC at school and program levels.
- (ii) Networking and partnerships with others who are exploring the sustainability of CBC, nationally, regionally, and internationally, such as technical and further education institutions in Australia, community colleges in US, Canada, etc.

Dissemination

25. Dissemination to be achieved through:

- (i) Presentation of findings and lessons learned in the development and implementation of CBC in NHS and NVS and their respective programs at conferences.
- (ii) Involvement of staff from NHS and NVS in curriculum development at other similar institutions.
- (iii) Joint resource development for CBC implementation with other similar institutions in the municipality and beyond.
- (iv) Conducting workshops for staff at other secondary vocational schools in Nanning and GZAR.

B. Strategies for Teacher Training capacity building

Rationale

26. The National Plan for Medium- and Long-term Education Reform and Development (2010–2020)³⁵ assesses how PRC intends to reposition itself to meet its economic and social needs of the 21st century and acknowledges a number of areas where its education systems could be strengthened. It concludes that PRC's concept of education, teaching methodologies, and content is outdated. In the context of TVET, the plan articulates the current gap between PRC's current vocational skill levels and its future needs, acknowledging the need for significant investment. Reforms propose a focus on quality improvement in teacher training and teacher accreditation, and on building strong connections to industry to facilitate transitions to vocational education.

³⁵ *Outline of China's National Plan for Medium and Long-term Education Reform and Development (2010-2020)*. <http://www.moe.edu.cn/publicfiles/business/htmlfiles/moe/s3501/index.html>

Outcome

27. Creation of a sustainable key trainer framework to increase quality of teaching-learning activities through learner centered activities using a range of approaches and methods, thus enhancing the effectiveness and efficiency of industry relevant learning outcomes. This system will improve teacher training at the school staff, management and outside institution levels.

Strategies

28. A key strategy to addressing teacher training challenges is to provide quality capacity building of staff at all levels in project targeted schools and to implement a teacher training framework, which creates a cadre of key trainers who can provide sustainable support at the school staff, management and outside institution levels (see framework in fig. 1 of this section). Teaching methods and skills in both target schools need to be updated and upgraded. There is a lack of a sufficient number of well-trained teaching and of managerial staff in both project schools. One important reason for lack of suitably qualified vocational education staff is that vocational school teacher training is ineffective and is not in line with international quality standards for practical, needs-based vocational education.

29. There is a long-term need to improve teaching qualifications in the form of 'double-qualification', i.e. teaching and subject matter qualification. There is a demand to go beyond the relative traditional teaching methods in both schools and learner centered method skills need to be developed and institutionalized.

30. Continuous professional development (CPD) strategies for improving institutionalized teacher-training quality. In response to the survey question applied during the PPTA on professional development, leaders and managers stated that not only do their teachers need training but also they want training in several areas. Both project schools expressed dissatisfaction with current training opportunities and courses due to the lack of time given for training in new teaching-learning methods. External 'experts' provide most of the training and there is little or no follow up given. The methodology used is frequently traditional and lecture-based, giving little or no opportunity for practice.

31. Development of learner-centered methodology skills will (i) improve the effectiveness of teachers' teaching and learning, (ii) develop essential skills that teachers and future teachers and nurses need in the work place, such as, critical thinking and analysis, problem-solving, teamwork etc., (iii) help teachers understand their students better and more deeply and see them in a more holistic way.

32. **Module and learner-centered learning resources development.** A course and modules on Materials Development is important for (i) trainers and teachers to learn how to create materials that are learner-centered and task-based, which promote creative, problem solving and critical thinking skills; (ii) providing trainers and teachers with materials development skills makes them more independent and confident and provides an element of sustainability. Materials should be needs-based and 'authentic' (reflecting reality).

33. **Implementing the model training bases.** This would provide opportunities for teachers and school staff to continually professionally develop and this in turn would help build capacity in delivering quality teaching and learning. The Kindergarten Training Base, within the NVTTS will provide a venue for teaching practice for internal and external students as well as a center for action research and learning and teaching

resource development. Such activities within NVTs would help develop the whole school and raise its status so that it would be regarded as a 'Center of Excellence,' not only locally but also regionally and nationally.

Activities

34. **Develop a cohort of key teacher trainers.** In order to make the proposed Training Model sustainable a cohort of key teacher trainers will be developed in each school who will have defined roles and responsibilities. These key trainers will form the critical mass of change agents in each school responsible for different aspects of teaching and learning. They will be responsible for developing reflective educators capable of making their own professional decisions. For this reason a set of relevant and practical selection criteria will need to be developed. This should include performance and attitude and behavior criteria whilst they undergo the upgrading courses.

35. The key trainers should undergo the two upgrading courses above and be members of the teaching staff in each school. It is envisaged that an initial selection will be made from these courses. A part of key trainers' roles and responsibilities will be to undertake training to be able to conduct in-service educational training and CPD modular courses for (i) teachers already working but in need of either upgrading or re-certifying, and (ii) for nurses and rural practitioners in need of updating their skills.

36. **Upgrade (re-certify) existing teachers.** Although a system for the upgrading of existing kindergarten teachers already exists, which is meant to be conducted by NVTs, there has been no intake. This is because NVTs has only recently changed status to a preschool provider. It was formally a primary school provider. Therefore it has no reputation in Early Years Education. This training model would help NVTs to develop a quality upgrading/ certification program for those kindergarten teachers already teaching. It is recommended that an essential part of their training is the teaching-learning program.

37. Develop learner centered teaching-learning strategies including, problem based learning, project based learning, group learning, peer learning, self-directed learning, work based learning and others enabling learners and teachers to use a variety of approaches, recognizing the individual learners' preferences for learning styles.

38. Upgrade module and learning resources development by (i) upgrading selected teachers in module and learning resources development in project schools, and (ii) developing key trainers of module and learning resources development (including training in competency-based curriculum and assessment and CPD frameworks).

39. **Implement pre-service teacher training.** Train new student preschool teachers and new student nurses. New student teachers in preschool teachers and new nurses shall be taught by teachers who have successfully completed upgrading. Therefore they should provide a good model of student-centered method. In addition the teacher trainers should set up support systems (observation and feedback/ monitoring/ coaching/ mentoring) for new teachers and nurses whilst they are studying e.g. mentor schemes which will continue through to their induction phase when they start their first year in a school/ clinic/ hospital etc.

40. **Develop a comprehensive continuing professional development framework.** External specialists shall initially train key trainers, leaders and managers in the design, development and implementation of a comprehensive CPD framework. This would ensure that most of the training interventions were part of a structure that would link to a staff's career pathway.

41. **Provide a monitoring and evaluation framework for the training.** External specialist shall train key trainers and leaders in monitoring and evaluating all training activities. This would include keeping track of data through a Teacher Management Information System and conducting tracer studies. Information gleaned from such data would inform the existing CPD framework and training activities so as to make changes where/if necessary.

42. **Train external clients.** Clinical supervisors, kindergarten directors, potential mentors at kindergarten schools, clinics, and hospitals. Key trainers shall be responsible for training staff in schools, clinics, and hospitals that are, in turn, responsible for overseeing student teachers' teaching practice and student nurses' clinical practice. The key trainers would train them in support systems and especially on the importance of observation and giving constructive feedback. This training activity would require clinical supervisors, that is, those responsible for working with student nurses during their clinical practice and induction periods, to participate in teaching-learning methods training. The key trainers from NHS would provide training for the clinical supervisors. This would mean that (i) clinical supervisors would have the necessary skills to help and support the student nurses in their clinical practice and during their first year of nursing, and (ii) direct links would be made between NHS and clinics/hospitals so that strong professional and practical partnerships would be built.

43. **Apply the same to the kindergarten directors.** The key trainers from NVTs would provide training for the directors who in turn would support and help the trainee teachers in their teaching practice and induction period. This would mean that (i) Kindergarten directors would have the necessary skills to help and support trainee kindergarten teachers in their teaching practice and their first year of teaching, and (ii) direct links would be made between Nanning No. 4 Vocational and Technical School and Kindergarten Schools so that partnerships could be built.

Sustainability

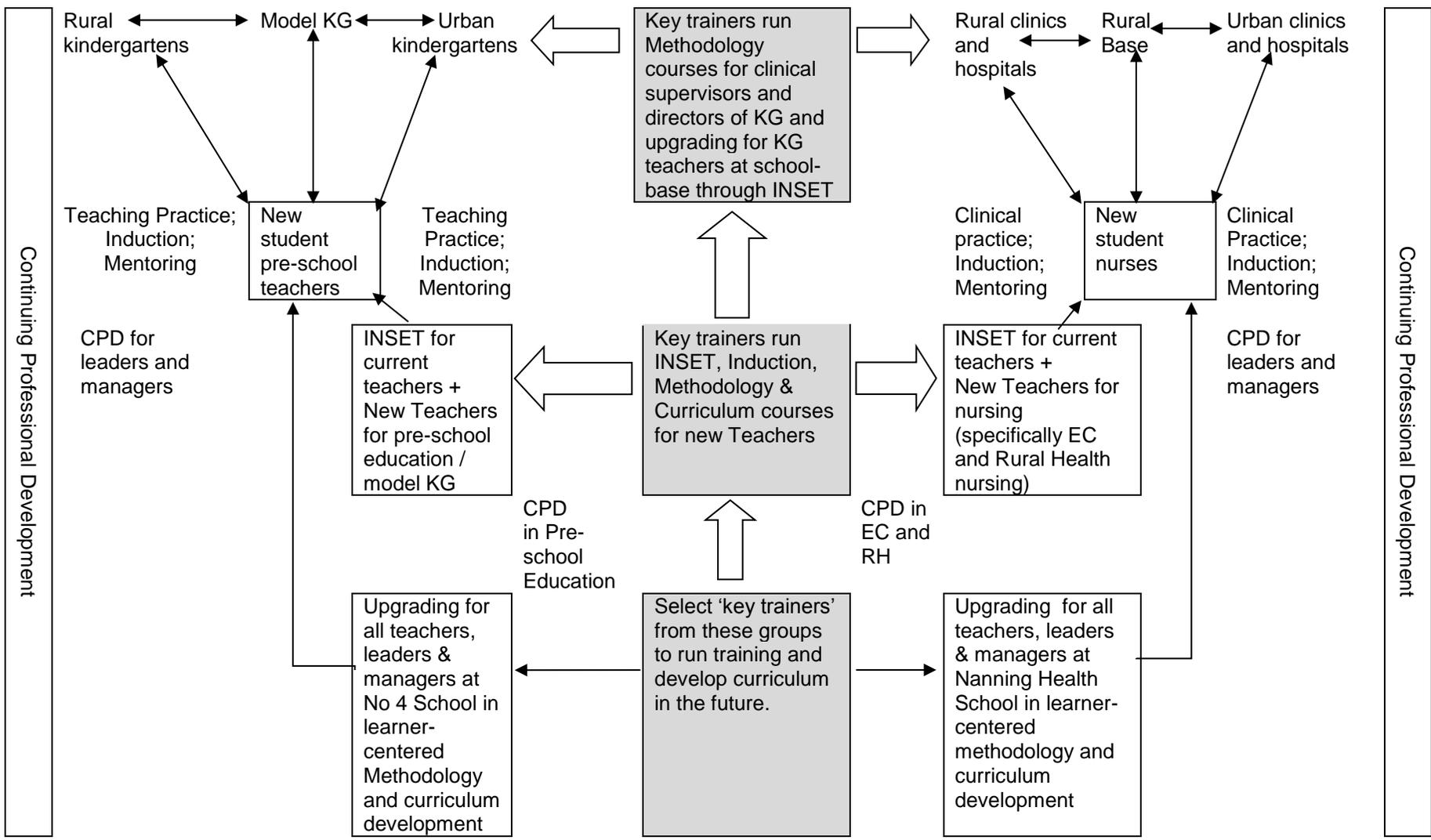
44. Sustainability will be achieved through:
- (i) Institutionalization of arrangements for training of teachers, educational leaders and external clients, through in-service, pre-service, and CPD provisions.
 - (ii) Proposed new and continuing organizational and institutional training arrangements and relationships between target schools and external institutions.
 - (iii) The key trainers' presence at all stages of training guaranteeing continuity and harmonization of training activities.
 - (iv) The key trainers' sense of ownership of the management and monitoring of all training aspects will potentially contribute to sustainability leading to a successful systemic and institutional scale up.

Dissemination

45. Dissemination to be achieved through:
- (i) Preparation of materials (documents, presentations etc.) for dissemination of good practices of in-service, pre-service, and CPD for teacher training, including external clients and disseminating these materials to reach a wide professional audience in other institutions and agencies locally, nationally, regionally, and internationally.
 - (ii) Establishing external partnerships with education agencies and organizations necessary for good quality TVET teacher training in PRC, Association of Southeast Asian Nations (ASEAN) and other countries.

- (iii) Plans to include activities designed to ensure the continuing visibility, accessibility and use of the results after the end of the project, to ensure maximum impact and sustainability after the end of the project dissemination.

Training Model: Overall View of Strategy



INSET = in-service training.

C. Strategies for establishing Elderly Care Training and Curriculum Reform

Rationale

46. PRC is one of the fastest ageing countries in the world. In 2010, there were 178 million people over the age of 60 and it is estimated that by 2050 the number will exceed 480 million. The government's response to this challenge is outlined in the Twelfth Five-Year Plan (2011–2015), which suggests an elderly care system that is similar to that in the developed countries. Current government targets include 90% of care to be provided as home assistance, 7% as community care including day care and 3% in elderly care institutions. There is an urgent need to expand elderly care services with well trained personnel to fill the rapidly emerging job market which is anticipated to be more than 5 million new jobs.

47. According to government policies, there will be an increased requirement for trained nurses specializing in elderly care leading to a ratio of 1 nurse per 30 patients. In Guangxi there are approximately 6 million elderly of which approximately 657,000 reside in Nanning Municipality. This means that even at a ratio of 1 nurse per 30 patients, a total of 200,000 nurses will be needed in Guangxi province and 22,000 in Nanning municipality.

Outcome

48. Creation of an elderly care curriculum serving nursing and elderly care workers students. Creation of a bridging course for elderly care workers to the nursing program.

Strategies

49. The project will support the development of a new curriculum for elderly care using the CBC approach along with the associated assessment instruments and training. The project will strengthen curriculum development and implementation for elderly care nurse training at NHS. The model (see Figure 1) and modified curriculum should be designed to serve as a demonstration project for replication across the PRC.

50. This strategy will strengthen the nursing program in two ways. Firstly, it will enhance a sustainable full time program capable of addressing the increasing deficit of skilled workers in the field of elderly care. Secondly, it will lead to the development of a bridging program, which will provide additional access for students (most of whom are rural) from the elderly care certificate program to the full time nursing program.

51. The curriculum development process will be led by the Vice-Principal responsible for curriculum at the NHS with the support of the key trainers and curriculum developers identified and trained within the Teacher Training component of the project.

52. Based on international experiences and best practices, there has been a shift in the NHS Nursing Faculty from traditional teaching methods towards nurse 'task-oriented' teaching and learning (approximating competency-based curriculum). However, a full acceptance of CBC and associated student-centered and active teaching-learning method still needs to be institutionalized.

53. Although teaching and learning materials are being developed mostly consistent with CBC, difficulties have been encountered as to how to merge knowledge and skills in subject matter into a competency-based program. There is a shortage of learning aids necessary for teaching clinical skills exacerbates the problem and when available will also require additional teacher upgrading.

54. There are only a few teachers able to teach and develop materials in suitable for CBC. This requires strategies that provide upgrading and updating teachers' skills and a movement towards 'task-oriented' teaching including clinical skills.

55. The project will conduct an in-service training needs analysis for Nursing Faculty and Administration. Assessment will be made of the viability of opening an office to provide in-service training on a cost recovery basis to both private and public residential care facilities.

56. The project will (i) conduct an up-to-date occupational analysis, (ii) develop a series of learning modules covering the Elderly Care component of the full time and bridging program, (iii) support learning resources reflecting a competency-based learning methodology, (iv) develop well integrated clinical simulations along with professional upgrading on how to use the simulations as a teaching tool; development of classroom, clinical simulation and actual clinical training student assessment tools, (v) and a graduate follow-up system linking to an ongoing formative program evaluation system.

Activities

57. Specific project activities under this subcomponent include the following:

1. Establishing a Working Group

58. With support of project consultants, a working group, consisting of school staff and industry and professional body representatives will be established to undertake an occupational / functional analysis of tasks and will identify industry competency standards, to be validated by industry.

59. Developing core competencies, which concentrate on areas such as teamwork, communication skills, self-discipline, following instructions, applying technology and numeracy will be developed and integrated into the CBC. In collaboration with the projects consultants, the review committee will utilize the outcome as a blueprint for other TVET institutions offering courses or programs in the same field.

2. Development of Framework Curriculum and Core Standards

60. This should include (i) conducting an occupational analysis to identify the range, depth and breadth of knowledge and skills required to provide the desired elderly care; (ii) conducting an occupational analysis workshop using industrial representatives to determine the skills needed to competently function as a health care provider for the elderly. Competency not only includes the technical skills but also employability skills, which allow a person to transfer their technical skills and knowledge across a number of jobs within an industry. This leads to greater flexibility within an enterprise and greater opportunities for career path planning by employers and individual workers. It also helps workers continue their learning throughout their lives. Employability skills are critical crosscutting skills; (iii) conducting a "perception check" of the first draft of the performance objectives (competencies) with the participants in the workshop referred to above; (iv) conducting validation workshops of the revised task analysis with a different group of health care representatives; (v) developing a variety of scales to indicate the level of skill a student must demonstrate in order to be declared competent, including (a) **age scale**, which indicates the age range of the patient upon whom the learner must demonstrate the clinical skill in order to achieve competency; (b) **proficiency level**, which classifies each clinical competency in terms of the level of proficiency expected of an individual entering practice; and (c) determining the 'relative weights' of the occupational profile objectives according to continuous and discrete skill types.

3. Reorganize the Competencies Learning Modules According to Pedagogic Logic

61. This includes (i) developing course outlines through (a) determining the most effective teaching techniques to achieve a learning objective(s), (b) match types of learning resources to learning objectives, and (c) field testing of modules; and (ii) preparing a module development procedure manual.

4. Train Key Faculty in Learning Resource Development³⁶

62. Train faculty in developing different types of learning resources, including e-learning, evaluating the effectiveness of a learning resource, and employ current instructional techniques to maximize the effectiveness of learning resources.

5. Prepare Clinical Field Skills Training Policy Manual

63. This includes (i) drafting a generic agreement between NHS and clinical facilities; (ii) developing non-NHS clinical supervisors (mentors, preceptors, etc.) training modules, and (iii) strategies for adoption of the clinical training policy.

6. Develop Assessment Tool Manual for Learning Modules and Clinical Experiences

64. Determine the evaluation method to be used to judge clinical competency or theoretical competence. Provide workshops on how to develop the specific tools such as check list, clinical templates, and item banks.

7. Workshops

65. Conduct workshops on (i) validity and reliability (including inter-rater reliability) of tests, and (ii) student follow-up system as part of a formative evaluation system. Features of the system should include gender disaggregated data on (a) student satisfaction evaluation and (b) employment tracking system on employment and job migration.

8. Develop a Policy and Procedures Manual for the Bridging Program

66. This includes (i) establish eligibility criteria, policy and processes for the bridging mechanism, (ii) develop a student handbook, and (iii) ensure student record system can accommodate the part time students.

9. Conduct an In-service Needs Analysis

67. Analysis for Nursing Faculty and Administration, and supply the results to the Teacher Training Consultants for follow-up.

68. **Create a system to provide short term up-grading (workshops/courses to personnel currently working in public and private residential care facilities)** based on (i) community training needs analysis for elderly care upgrading in residential care facilities; and (ii) financial feasibility analysis for meeting identified training needs, and (iii) produce a summative evaluation report of service.

69. **Continuing professional development.** Provide a short-term (4 weeks)

³⁶ See Teacher Training terms of Reference in Appendix 7.

continuing professional development opportunity to the key trainers identified in the Teacher Training component on areas, such as new technologies or approaches in elderly care.

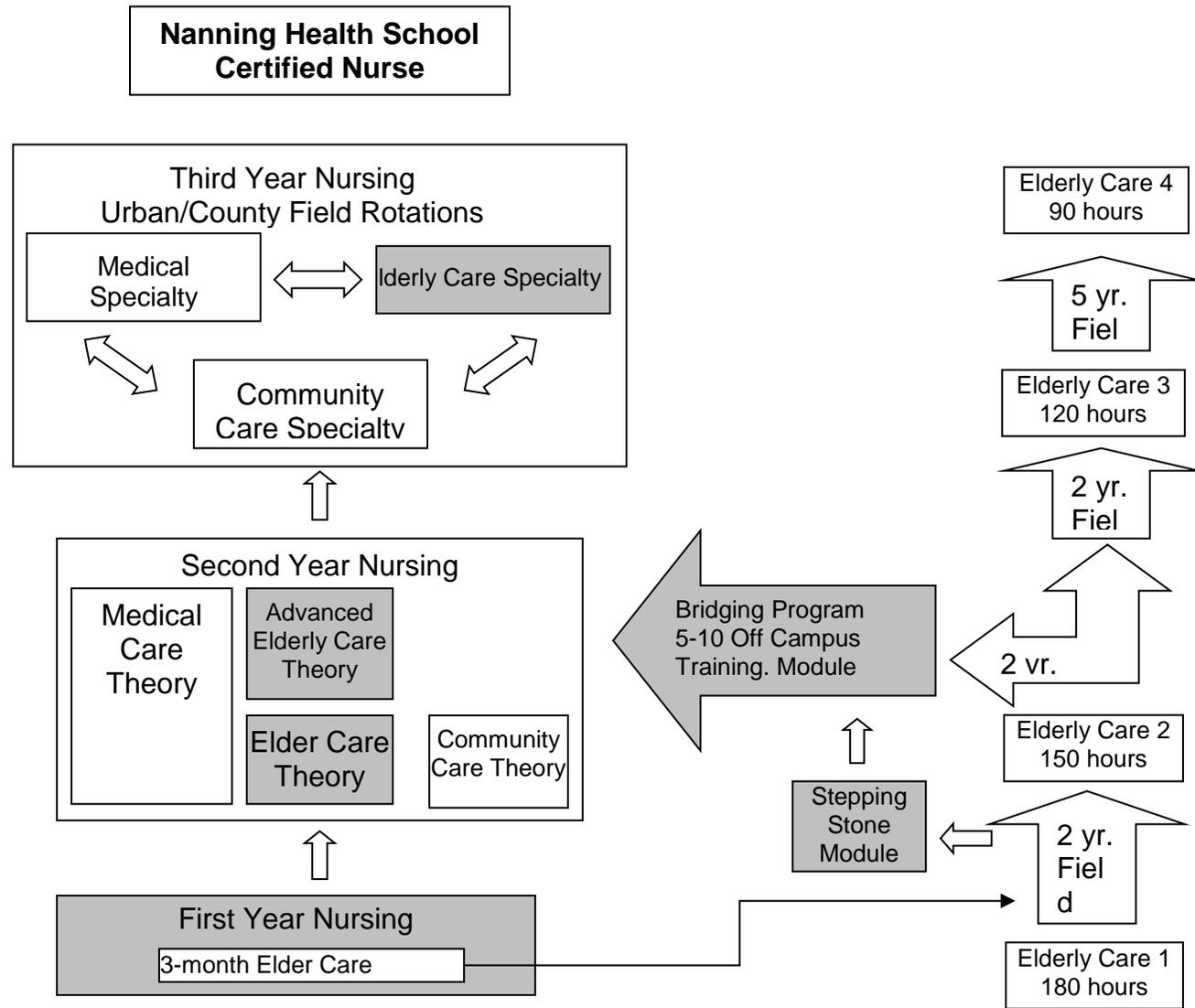
70. **Develop assessment methods to assess the quality of the strengthened curriculum.** The working group, together with the project consultants, will develop qualitative and quantitative measures to assess the quality of the strengthened curricula developed within the new curriculum framework. Assessment standards will include a focus on 'soft skills'. The assessment standards will be reviewed and validated with support of the project consultants.

Sustainability

71. Sustainability will be achieved through:
- (i) Institutionalization of arrangements for bridging courses and embedding the elderly care modules in the overall nurse training program .
 - (ii) Provision of in-service training on a cost recovery basis to both private and public residential care facilities.
 - (iii) Replication of curriculum and training strategies by other health school practicum training such as nursing, dentistry etc. at municipal, province and national levels.

Dissemination

72. Dissemination to be achieved through:
- (i) Preparation of materials (documents, presentations etc.) for dissemination of good practices of elderly care nursing and disseminate the materials using methods that reach a wide audience locally, nationally, regionally and internationally.
 - (ii) Establishing external partnerships with public health education agencies and organizations necessary for good quality public health and community health training for rural medicine teachers within in PRC, ASEAN, and other countries.
 - (iii) Plans to include activities designed to ensure the continuing visibility, accessibility and use of the results after the end of the project, to ensure maximum impact and sustainability after the end of the project dissemination.



C. Strategies for Establishing Pilot Rural Health Training Bases

Rationale

73. There is a shortage of rural health professionals contributing to the widening gap of urban-rural health inequalities in the People's Republic of China (PRC). The health professionals who work in rural and remote areas often do not have sufficient public health education and training to provide quality public health services that can address the inequalities. Those who have received training usually have received heavily theory-based education without practical training. There is a demonstrable need for nursing and rural doctor students to have practical training in rural health systems to include township hospitals, village clinics and village communities. This will help students to attain the knowledge, skills and competence to be valuable rural health practitioners. This will increase the quality of nurse and rural doctor training and result in better delivery of health services for rural residents.

Outcome

74. Increased quality and training capacity of the Nanning Health School (NHS) through CBC and student centered teaching learning methods in the provision of pre-service, in-service and continuing professional development training for nursing and rural doctor students to meet professional, community and social needs and demands.

Strategies

75. The project aims to establish a demonstrative model of pre-service rural health training under the management of NHS. The new inclusion of township hospitals and village clinics in the students' practicum is a change for the health school and rural health facilities. Currently the township hospitals used for training of nurses and rural doctor students are selected mainly based on geographic location and transportation convenience. This does not necessarily guarantee quality of institutions, nor of the practitioners who provide the training. Thus there is a need for the pilot to assist the health school in selecting rural health training sites of a certain quality for their students. There will also need to be new organizational and institutional arrangements and relationships between the health school and rural health institutions, which the pilot will support in the development and refinement of these.

76. This is an opportunity for the TVET project to establish rural health training sites that are based within the rural health system and outside of the health school. Since this is not currently practiced elsewhere in the country, this new rural health-training model will have a demonstrative value. This project will support the establishment of a pilot that focuses on enhancing the quality of practical training placements of the rural medicine students from the NHS in selected rural health facilities. For the purpose of the pilot, a limited number of training sites will be selected. Given this, it is likely that only a proportion of eligible students will be placed at these pilot sites during the project. However, if the pilot is shown to be feasible and effective, the model can be scaled-up. In addition, the number of target trainees can be expanded beyond pre-service learners of health school students to include practicing rural doctors (particularly village doctors) in refresher courses and continued in-service training as they also have a need to enhance their public health and clinical competencies.

77. The project will implement a competency-based curriculum (CBC) for the development of health students' practical skills. This CBC will address needs of rural health practitioners, and the expectations rural communities have for rural health systems. The quality of nurses and rural doctor education and training will be strengthened through

CBC, as well as through trainers' mastering of student-centered teaching-learning methods, authentic assessment, public health and clinical theory-practice integration, ethical practices, and crosscutting issues in rural health care (gender, special needs of disadvantaged persons and ethnic minorities, social equity and participation).

78. A train-the-trainer model will be implemented where a number of rural medicine teachers from the health school will be selected as key teacher trainers. The project will enhance the trainers' capacity in teaching-learning methods, public health and clinical practices, leadership and professionalism. Some of these are linked with other components within the project, i.e. teacher training, CBC development and elderly care.

79. A core competency framework (validated by stakeholders) for rural health practitioners has been developed by integrating stakeholders' needs and demands and identified gaps, and based on international best practices. A total of 38 core competencies were identified under six competency domains in (i) Public Health Practice and Science; (ii) Attitudes and Communication; (iii) Professionalism; (iv) Ethical Practice; (v) Clinical Practice; and (vi) Teaching and Supervision. This framework will be used by key trainers and project consultants to develop CBC for trainers and trainees in the rural health education system for (a) other rural medicine teachers, (b) rural medicine and nursing students, and rural health practitioners in township hospitals and village clinics.

80. Once the key teacher trainers' teaching and public health capacities are enhanced, they will in turn enhance relevant competencies of other rural medicine teachers and rural health practitioners. The innovative and investigational part of the pilot lies in the key teacher trainers being based in rural health training sites in township hospitals, village clinics and the associated rural communities. This will ensure that the students and rural health practitioners receive timely and continuous support and assistance from the key teacher trainers during the students' practicum. The key trainers' presence at these sites will greatly enhance the sustainability of the pilot as demonstrated by similar successful international projects. The key trainers' sense of ownership of the management and monitoring of the practicum training will also be increased which is another important factor that contributes to sustainability and a successful scale up.

81. The pilot training sites will be selected from existing township hospitals. As most health school teachers lack experience in the recently reformed rural health system, all rural medicine teachers will be required to have in-service training and work placements at township hospitals' public health departments and village clinics. The key teacher trainers will have longer placements to allow for sufficient time gaining new competencies and to build relationships with the township hospitals, village clinics and communities. Concurrently, they will apply the site selection framework to assess the quality of rural healthcare facilities and services, and then select a minimum of two township hospitals for the implementation of capacity building activities during the project .

82. Rural health practitioners within these selected pilot sites will then receive training in teaching-learning methods, public health and other necessary skills. Key teacher trainers will be conducted these prior to, during and after the rural medicine students' practicum placements. It is expected that some practical learning activities for students will occur within the rural health system, and will primarily be led by the key teacher trainers. Examples of these include activities in health education, health promotion, community participation and mobilization. The stakeholders have agreed that nursing students should have observer-ships in rural health systems as such rotations will enrich their learning and give them an opportunity to experience different aspects of health and rural healthcare. The key teacher trainers will also develop a CBC specifically for nursing students and facilitate student centered active learning, highlighting the unique characteristics of rural health systems that are relevant to nurses.

Activities

83. **Designate and retain key teacher trainers.** A minimum of two rural medicine core teacher trainers will be selected or employed by the health school based on their motivation, former work experience and performance, ability to learn, communication skills, leadership abilities and initiative. The school will ensure that the core teachers have reduced teaching hours and protected time to take part in their own training and capacity building, pilot project planning, implementation and directing.
84. **Stakeholders' consultation.** Consult project stakeholders to identify training needs, demands and existing gaps for rural medicine students, rural medicine core teacher trainers, rural medicine teachers, township hospital doctors and village doctors. In consultation and validation with stakeholders, specify competences, and level of attainment based on the core competency framework, references and toolkits.
85. **Developing competency-based curriculum.** Develop a CBC that is based on the competency framework for training rural medicine teachers to become core teacher trainers; a CBC for training rural health providers to become student mentors; a CBC for rural medicine student practical placements; and CBC for nursing student observer-ship.
86. **External partnership.** Determine and establish external partnerships with public health education agencies and organizations necessary for good quality public health and community health training for rural medicine teachers.
87. **Capacity building.** Conduct capacity building program for rural health teachers to become core teacher trainers based on the defined and validated core competencies specifically in education and training of public health and community health.
88. **Stakeholder validation for selection of rural training bases.** Develop a stakeholder validated selection criteria and select pilot rural health training bases. Apply the selection framework to assess the quality of a minimum of 5-10 central township hospitals out of a total of 40 central township hospitals in Nanning. A minimum of two central township hospitals with better evaluations shall be selected as pilot rural health training bases. Determine the qualifying criteria for rural health providers to become rural health mentors qualified or accredited by the health school. Determine the nature, duration and requirements for renewal of qualification or accreditation.
89. **Supervision, monitoring and mentoring.** Supervise, monitor and refine training programs on delivery modes, learning materials and resources, and assessment methods that are in line with the identified gaps and relevant best national and international practices. Determine and establish monitoring and mentoring methods.
90. The monitoring measures may include the following and any other indicators deemed constructive to the improvement and dissemination of the pilot:
- (i) quality of facilities providing practical skills training and rural health provider training curricula documents;
 - (ii) quality and relevance of teaching materials and learning activities;
 - (iii) students', teachers' and rural health mentors' degree of satisfaction of the practicum;
 - (iv) quality of assignments of students who went to pilot sites compared with those who did not;
 - (v) competency assessments of students participating in pilot sites compared with non-participants;

- (vi) competency assessments of mentors participating in pilot sites compared with non-participants;
- (vii) training bases' assessment (evaluation ranking) based on the selection framework pre- and post-pilot establishment;
- (viii) number of township hospitals selected as pilot training base;
- (ix) number of rural health providers received training conducted by core teacher trainer;
- (x) number of rural health providers qualified or accredited as practicum mentors;
- (xi) comparison of pilot to non-pilot student test scores (students who rotated in pilot sites versus those who did not);
- (xii) comparison of pilot to non-pilot graduate's passing rates of the Assistant practicing Physician certification examination;
- (xiii) comparison of apprenticeship or internship work assessment of pilot to non-pilot graduates;
- (xiv) comparison of work satisfaction and confidence levels of pilot to non-pilot graduates;
- (xv) comparison of unemployment rate of pilot to non-pilot graduates;
- (xvi) comparison of overall satisfaction with rural health services among rural residents pre- and post-pilot establishment; and pilot and non-pilot sites;
- (xvii) the evidence of pilot experiences expanded or adopted outside project area

91. **Comparative analysis.** Perform comparative analysis of strength and weaknesses of practical placement in pilot sites and non-pilot sites.

92. **Monitoring and evaluation.** Use monitoring and evaluation findings to make necessary adaption to improve the quality, organization, management and operation of the pilot training sites to enhance the prospects for future scale-up success

Sustainability

93. Sustainability will be achieved through:
- (i) Institutionalization of arrangements for the students' practicum during the implementation stage.
 - (ii) Proposed new and continuing organizational and institutional arrangements and relationships between the health school and rural health institutions.
 - (iii) The key trainers' presence at sites, using the pilot as demonstrated by other national and international best practices.
 - (iv) The key trainers' sense of ownership of the management and monitoring of the practicum training will potentially contribute to sustainability leading to in systemic and institutional successful scale up.
 - (v) Institutionalize and scale-up model based on the monitoring and evaluation results, ensuring sustainable funding to employ teachers to be core teacher trainers and maintain such a position; pilot model to be replicated by other health school practicum training such as nursing, dentistry, etc.
 - (vi) Pilot model to be replicated by other health school practicum training such as nursing, dentistry etc. at municipal, province and national levels.

Dissemination

94. Dissemination to be achieved through:
- (i) Preparation of materials (documents, presentations etc.) for dissemination of good practices of the pilot training bases and dissemination of the materials using methods that reach a wide audience locally, nationally, regionally, and internationally.

- (ii) Establishing external partnerships with public health education agencies and organizations necessary for good quality public health and community health training for rural medicine teachers within in PRC, ASEAN, and other countries.
- (iii) Plans to include activities designed to ensure the continuing visibility, accessibility and use of the results after the end of the project, to ensure maximum impact and sustainability after the end of the project dissemination.

D. Strategies for the development of a kindergarten training base

Rationale

95. As previously stated, the National Plan for Medium- and Long-term Education Reform and Development (2010–2020)³⁷ assesses how the PRC intends to reposition itself to meet its economic and social needs of the 21st century and acknowledges a number of areas where its education systems should be strengthened. The plan calls for preschool education to be developed so that by 2020, one-year preschool will become the norm, two-years universalized, and three-years popularized. The plan flags the need to strengthen access to preschool education in rural areas and to train a large contingent of high-quality kindergarten teachers. These policy reforms will create a foundation for long-term human resources upskilling and future competitiveness in the PRC, and address the underlying causes of intergenerational poverty and social inequality. Children under age six now will enter the workforce in 2030. Investing in them now will help to ensure the future social stability and competitiveness of PRC.

Outcome

96. An operational kindergarten training base to support an improved quality of kindergarten teacher training in NVTs and learning environment for students.

Strategies

97. Recent reforms in kindergarten education in the PRC have called for curriculum and teaching approaches to become more diverse and aligned with the increasingly open and diversified society. This is to be achieved through reforming content, creating an innovative learning environment, enhancing and updating kindergarten teacher training and care of children. As a result, new curricula will be developed, piloted, and institutionalized, which can be used by other kindergarten training institutions and kindergarten providers in the municipality, province and nationally. An existing example of this approach in the PRC is the *integrated theme-based curriculum* in Shanghai. It represents a localized progressive early childhood education approach.

98. The project will support a kindergarten teacher-training base, which emphasizes children's interests and needs, and also the process of education rather than the result. The training base will train existing kindergarten teachers and students in the kindergarten teacher program.

99. Generally, the professional level of preschool teacher trainers in Nanning and indeed the whole PRC needs to be improved to meet the requirements for the use of an innovative and children-centered curriculum. In addition, the kindergarten teacher training is relatively generalized and lacks strong practical, hands-on experiences. Even in the

³⁷ *Outline of China's National Plan for Medium and Long-term Education Reform and Development (2010-2020)*, <http://www.moe.edu.cn/publicfiles/business/htmlfiles/moe/s3501/index.html>

well-developed urban areas with high-level preschool faculty (such as Beijing and Shanghai), there is at times much misunderstanding about the reform ideas and ways to implement them among teachers and teacher trainers. To enhance the quality and effectiveness of kindergarten teaching education, the professional level of kindergarten teacher trainers and training institutions needs to be improved, by adopting innovative strategies in curriculum development, teaching-learning methods, mentoring, supervision, authentic assessment, and leadership.

100. The National Plan for Medium- and Long-term Education Reform and Development (2010–2020) has as an objective to popularize preschool education. This is to be achieved by 2020. The proposal is for the government to strengthen preschool education at various levels including planning, investment and supervision. It also requires a strong public preschool system and institutions which support, through evidence based and inclusive curriculum reforms, innovative teaching-learning methods, practice oriented preschool teacher training. This, in turn, will ensure the rights of all children irrespective of gender, socioeconomic background, or any other form of disadvantages to a basic preschool education. Despite the notable achievements in preschool sector development in the PRC over the last 10 years, it has been difficult for kindergarten teacher trainers and kindergarten teachers to fully implement progressive ideas and practices, due to deep-rooted educational traditions. Establishing a unique child-centered learning environment and a supportive relationship between a teacher and each individual child, requires re-thinking practical guidelines for teachers to learn and experience how to implement a modern kindergarten curriculum and support the academic and personal development of children.

101. For the kindergarten training base (KTB) to be successful it is important to develop and maintain a high quality physical and pedagogical learning environment. International research has shown a direct link between classroom quality—as measured by observable processes (e.g., caregiver responsiveness) and structure (e.g., teacher training) in early childcare settings—and a child’s cognitive and social development. Specifically, the research shows that higher classroom quality in early childhood learning environments is positively correlated with child cognitive and social outcomes, with children who experience higher quality doing much better than children in lower-quality early learning environments.

102. Expert support from outside the kindergarten for early childhood education will be institutionalised through the development of partnerships with key national and international best practice institutions. The NVTs and its KTB will put in place a sustainable plan, ensuring that there are opportunities for the teaching staff of teacher training schools and universities to take the initiative in conducting training sessions aimed at improving the early childhood care and education in the KTB, and to visit, observe early childhood care and education, and offer advice to the teachers. Such advisory and consultative functions are increasingly being positioned among the roles of university researchers. For example, to address the issue of developmental challenges or disabilities, some countries have adopted a system of having an expert make the rounds of the kindergartens offering advice to teachers and kindergarten teacher trainers on relating to these children and on providing them with early childhood care and education.

103. Developing effective collaboration between kindergarten staff and parents is an important strategy for the developmental process of children. High-quality preschool programs encourage parent involvement in the home and in the classroom. International research and experience has shown that parent and family involvement increases student achievement and success.

Activities

104. **Strategic planning.** Develop and implement a strategic plan for the KTB, including its vision, mission, goals, strategies, actions in key areas such as curriculum development and modification, teaching-learning methods including effective, a relevant and market responsive learning and teacher training system (delivery system), staff development, quality assurance, monitoring and evaluation and sustainability strategies, entrepreneurial development, community and industry relationship, and social marketing.

105. **Establishing professional development strategies,** which are (i) sustainable over time, (ii) grounded in practice, (iii) linked to curriculum and learner outcomes and competencies, (iv) cooperative, and (v) interactive. Develop and implement a practical and application oriented culture (e.g. action research, case studies, inquiry based research activities, and focus group discussions) for curriculum development and implementation, teaching-learning methods for teacher trainees and within kindergartens, and in assessments, mentoring, and support services for children.

106. **Adaptation of curriculum and teaching-learning methods.** Adapt and trial theories and practices of kindergarten teacher training from different countries within a context of Chinese conditions and culture, and develop progressive ideas and approaches with a view to establish a 'state-of the-art' learning environment for teachers and kindergarten children.

107. **Piloting curriculum and the learning environment.** NVTS will develop and implement guidelines ensuring that the curriculum meets the needs of children academically, socially and emotionally. This will require teaching children in small groups and inclusion of micro teaching methods in the teacher training curriculum. Activities may be structured according to the existing theme-based units. This should include (i) fostering each child's ability to feel free to grow mentally and socially, (ii) providing education through a facilitating environment, i.e. allowing children to grow through interaction with the objects and people within the kindergarten, (iii) teachers giving indirect support such as "setting up the environment around the child," and direct support such as 'helping the child to undertake learning activities, (iv) establishing a sympathetic relationship between the teacher and the child as a foundation of preschool education, (v) fostering relationships between children and their peers, and (v) fostering self-development through role playing.

108. **Applied research.** The project will support applied research studies within NVTS and the KTB. These may include all aspects of kindergarten activities such as the impact of professional development of kindergarten teacher trainers and kindergarten teachers on student academic performance, developmental issues, pedagogies etc. NVTS and its KTB will develop in collaboration with other interested educational institutions an applied research plan.

109. **Classroom management.** Establishing and maintaining a supportive learning environment is important. The practice and theory components of kindergarten teacher training shall foster an understanding of the importance of classroom management ensuring (i) an emotionally and physically safe environment; (ii) age appropriateness, defined as providing specific activities and materials that match the specific cognitive and verbal skills of the children; (iii) teacher resourcefulness, defined as making use of a naturally occurring phenomenon, and making use of other visual and auditory resources in the classroom; (iv) classroom management (i.e. clear rules and consequences, which refers to making the classroom rules and expectations consistently clear to the children while providing boundaries within which children can learn and grow); and (v) predictability,

defined as providing a routine that is predictable—one that the children can count on and that minimizes teacher stress.

110. **Developing innovative assessment processes.** In recent years, assessment in kindergarten education has been going through a major paradigm shift. Assessment, especially for young children, has turned from standardized testing to more authentic or performance based portfolios. This paradigm shift requires changes to not only the purpose and methods of assessment, but also to the role of kindergarten teachers in the assessment process. Teachers assess children in order to understand them rather than compare them. Now assessment requires multiple output measures rather than a single number outcome and teachers should use performance assessment to understand children's progress.

Sustainability

111. Sustainability will be achieved through:
- (i) Institutionalizing and operationalizing the lessons from research activities to be carried out by the staff of the KTB and the NVTs faculty, as well as in collaboration with other institutions and providers nationally and internationally.
 - (ii) Conscious blending of theory, disciplinary knowledge, and subject-specific pedagogical knowledge and practice and a carefully crafted field experience program for teacher trainers and trainee teachers
 - (iii) Establishing standards for ensuring quality teaching and learning, including active learner centered pedagogy using modeling and reflection.
 - (iv) Focusing on meeting the needs of a diverse student population in the teacher training program and a diverse pupil population such as ethnic minorities, socio-economic disadvantaged, and other disadvantaged groups.

Dissemination

112. Dissemination to be achieved through:
- (i) Conducting dissemination sessions for diverse target audiences, such as parent, community organizations, employers, other kindergarten teacher training institutions, kindergarten teachers, relevant government authorities and other stakeholders.
 - (ii) Publication of research findings in professional journals nationally, regionally and internationally.
 - (iii) Establishing partnerships with education agencies and organizations involved in and promoting good quality kindergarten teacher training in the PRC, ASEAN and other countries.

E. Strategies for Human Resource Development and Partnership Development Rationale

113. The outline of the PRC's National Plan for Medium- and Long-term Education Reform and Development (2010–2020)³⁸ strongly encourages collaboration between technical and vocational and education and training (TVET) institutions and enterprises to (i) facilitate integration of practice with theory, (ii) inform curriculum development, (iii) maximize the learning resources and opportunities available to students, (iv) contribute to the evaluation of teaching quality and the tuition of up-to-date practical skills, and (v)

³⁸ *Outline of China's National Plan for Medium and Long-term Education Reform and Development (2010-2020)*, <http://www.moe.edu.cn/publicfiles/business/htmlfiles/moe/s3501/index.html>

provide internships and fieldwork opportunities for TVET students. The plan promotes strengthening of the '*cultivation of a teaching force, which is proficient in both theories and skills, and the construction of training bases*' (p.17) to improve TVET provision, including through teacher quality evaluation by enterprise staff.

Outcome

114. NHS and NVTS will (i) institutionalize improved human resources management and planning; (ii) institutionalize sustainable and effective school-enterprise partnerships to maximize training program quality and enhance student and staff career development including educational leadership; (iii) operationalize sustainable and effective cooperation with other TVET providers within Nanning, GZAR, PRC, regionally with ASEAN countries and internationally to promote innovation, facilitate knowledge and curriculum sharing, arrange teacher exchanges, and for research collaboration; and (vi) institutionalize and operationalize graduate tracer studies for enhancing training program improvement, and TVET policy research, including issues of accessibility and social inclusivity of TVET programs for different groups of eligible young people.

Strategies

115. International good practice in TVET-industry partnerships illustrates the range of benefits that flow if these partnerships are effective. Benefits include (i) engagement of industry in competency standards and curriculum development, ensuring teaching and learning program alignment with industry needs and occupational requirements; and (ii) a strengthened learning environment provided by integration of campus-based learning with workplace-based learning that facilitates acquisition of both technical skills and more generic employability (or soft) skills.³⁹ The importance of career development and employability skills in secondary TVET is highlighted in the *Outline of China's National Plan for Medium and Long-term Education Reform and Development (2010-2020)*⁴⁰ including in the statement. '*Vocational education should ... cultivate work ethics, occupational skills, employability, and career-starting abilities in students*' (p.17).

116. The critical importance of incorporating employability skills in young people's training is also highlighted by the International Labour Organisation, which describes employability as encompassing '*... the skills, knowledge and competencies that enhance a young person's ability to gain and retain a job, progress at work and cope with change, secure another job if she/he so wishes or has been laid off, and enter more easily into the labour market at different periods of the life cycle*'.⁴¹ Effective workplace-based training facilitates these skills and also promotes two-way recruitment benefiting both the employer (internship provider) and the intern.

117. Effective quality assurance based around quality standards as part of an overarching framework for TVET institution-enterprise partnerships is required to assure consistent internship experiences. Quality standards will apply to (i) the setting of clear learning targets in the workplace to complement theoretical learning, (ii) adequate selection and preparation of workplace supervisors of interns, (iii) matching of interns and supervisors to ensure mutually beneficial relationships, (iv) appropriate allocation of work tasks to ensure the range of learning outcomes are met, and (v) workplace-based assessment connected with theoretical learning and assessment, and conducted by trained assessors to promote an integration of theoretical and practical learning.

³⁹ Kuczera and Field, *Options for China*, OCEB Paris, June 2010.

⁴⁰ *Outline of China's National Plan for Medium and Long-term Education Reform and Development (2010-2020)*, <http://www.moe.edu.cn/publicfiles/business/htmlfiles/moe/s3501/index.html>

⁴¹ <http://www.ilo.org/youthmakingithappen/skills>

118. Collection of good quality data on student learning experiences and graduate outcomes, including both labor market and further study outcomes, is vital, in addition to broader industry data on labor market demand, for the effective ongoing planning, evaluation and renewal of the training programs. Industry has a strong role to play in supporting analysis and interpretation of such data and providing advice on technological and other changes within the industry to inform planning and training program adaptation.

119. Effective partnerships with relevant national and international education and training institutions to facilitate training program improvement and innovation through curriculum sharing and review, sharing of good practice in teaching and learning approaches that integrate on-campus and workplace-based learning and assessment, staff exchanges, benchmarking of local training programs with relevant national and international programs, and joint research activities focused on both policy and practice.

120. Utilization of CPD is essential to assist teachers and trainers to effectively take on these broader roles and to become networking partners with enterprises and national and international TVET colleagues, innovators and researchers. Teaching and training are no longer limited to teaching and learning provision and the role of teachers and trainers has extended to include curriculum and teaching innovation, networking and partnership negotiation with industry and other education and training providers, career and student support counseling, evaluation, organization and policy, and practice research.

121. Effective educational leadership at institutional and systemic levels is a determining factor for human resource development (HRD) of teaching staff. Good educational leadership involves mentoring of individuals and groups with the aim of improving the quality of their performance. Internationally, it is recognized that educational leadership needs to focus on (i) curriculum development leadership, (ii) leadership in teaching-learning methods, (iii) community and industry liaison leadership, (iv) educational planning leadership, (v) educational quality assurance leadership, and (vi) learner assessment leadership.

Activities

122. **Human resource development.** This shall include (i) conduct comprehensive HRD needs and demands analysis in both Project TVET institutions; (ii) conduct in-depth assessment of HRD management practice in NHS and NVTs; (iii) develop and conduct training for selected management staff in planning, coordination and management of human resource development skills in NHS and NVTs; and (iv) educational leadership training. Training events should also include relevant staff at Nanning and Guangxi Zhuang Autonomous Region (GZAR) Education and Health Bureau staff and partner TVET schools. This should support development of reference materials for quality human resource development practice at NHS and NVTs, resulting in implementation of a human resource development framework with indicators of quality practice.

123. **Research capacity building.** Develop and conduct training for selected teacher and management staff in evidence-based practice in teaching (e.g. teaching a clinical practice approach) and action research skills towards implementation of a teaching quality improvement cycle and case study research and reporting to support dissemination of project learning, for staff both Project TVET schools.

124. **Undertaking tracer studies.** This includes (i) identify staff teams at NHS and NVTs to conduct tracer studies; (ii) identify relevant national, ASEAN, and international examples of effective graduate tracer studies, particularly those of teacher training graduates and health care training graduates; (iii) develop and deliver short course to

develop graduate tracer study research skills for selected staff of NHS and NVTS, selected staff of Nanning and GZAR Education and Health Bureau and partner TVET schools; (iv) guide and support development of scope, design and sample trialing of first tracer study in NHS and NVTS; (v) support refinement, post-trial, and initial implementation of tracer study of NHS graduates and NVTS graduates; (vi) facilitate data analysis (using SPSS or similar software) including disaggregation by gender, *hukou*, industry sector, socioeconomic status and ethnicity, data interpretation and reporting of NHS and NVTS tracer studies data; (vii) support review and dissemination of initial tracer studies' findings, discussion of implications for schools' programs and development of action plans for refinement of schools' training program elements, evaluation of effectiveness of the tracer study and implementation of refinements for the tracer study of the next graduating cohort in NHS and NVTS; and (viii) support tracer studies implementation in Year 2 and Year 3 of the project.

125. **Career development practice** by (i) conducting an in-depth assessment of career development practices, from school intake to job placement, at NHS and NVTS; (ii) developing and providing capacity building activities for management and teachers NHS and NVTS on (student) career development practice at intake, program delivery, and job placement stages, including addressing employability skills and inclusiveness; and (iii) supporting the development of reference materials for management of career development practice (including recruitment strategies, applicant selection manual, guidelines for embedding generic employability skills within curriculum, teaching, learning and job placement practices) in both project TVET institutions.

126. **Strengthening technical and vocational education and training institution partnerships with industry** by (i) developing and providing market-oriented program planning and cooperation workshops for selected leaders and teachers of both Project TVET schools; (ii) identifying and conducting in-depth assessments of existing school-enterprise partnerships, for NHS and NVTS; (iii) developing and conducting training for selected school leadership/management staff and leading teachers of NHS and NVTS in planning, management, monitoring and evaluation of school-enterprise partnership programs. Ideally this training event should include staff of Nanning and GZAR Education and Health Bureau, partner enterprises and TVET schools; (iv) developing, in collaboration with school management, reference materials for strengthening and management of NHS and NVTS' **industry reference groups**, including qualified experts from industries and the industry advisory groups, experts from the Nanning and GZAR Education Bureau, and experts from the TVET institution. Ideally, these developments should be shared within the Nanning and GZAR network of TVET schools engaged in preschool teacher training and health care training; (v) supporting regular (quarterly) meetings of strengthened **industry reference groups** for NHS and NVTS; (vi) developing and conducting workshops with senior leadership staff of NHS and NVTS, enterprise partners and Nanning and GZAR Education and Health Bureau staff to analyze how national, provincial and municipal policies and guidelines for TVET institution-enterprise partnerships can be implemented; (vii) support development, review and refinement of reference materials (including standard memorandums of understanding, partnerships guidelines, etc.) for school-enterprise partnership management practice in NHS and NVTS.

127. **Strengthening TVET institution partnerships with other education and training providers** by (i) identifying and assessing in-depth, existing partnerships between NHS and NVTS, and respective educational institutions at local, national, and international levels; (ii) identifying good practice educational institutions providing preschool teacher training, with effective institution-enterprise partnerships, in the PRC, ASEAN countries, and in the broader international context for potential collaboration with NVTS; (iii) identifying good practice educational institutions providing nursing, rural health care, and elderly care training, with effective institution-enterprise partnerships in the PRC,

ASEAN countries, and in the broader international context for potential collaboration with NHS; (iv) supporting the organisation of Networking Study Visits to PRC good practice preschool teacher training and nursing, rural health care and elderly care institutions; (v) supporting International Good Practice study tours for leadership and staff teams; (vi) supporting on the job training for selected teachers in national best practice institutions (kindergartens, public health, elderly care); and (vii) supporting international partnership development with key institutions through exchange of staff, applied research activities, workshops, training and mentoring.

Sustainability

128. Sustainability will be achieved through:
- (i) Institutionalization of partnership arrangements with industry and with TVET institution partnerships with other education and training providers
 - (ii) Inclusion of Industry Reference Groups in all aspects of programs in both schools
 - (iii) Improved human resources practices

Dissemination

129. Dissemination will be achieved through:
- (i) Dissemination of learning by NVTS to partner and other GZAR and PRC TVET preschool teacher training schools and colleges, Nanning and GZAR Education Bureau staff, partner kindergartens and ASEAN partner institutions through seminars and workshops, and more broadly through conference presentations and publications of relevant journal/newsletter articles.
 - (ii) Dissemination of learning by NHS to partner and other GZAR and PRC TVET health care training schools and colleges, Nanning and GZAR Health Bureau staff, partner hospitals and ASEAN partners through seminars and workshops, and more broadly through conference presentations and publications of relevant journal/newsletter articles.
 - (iii) Dissemination plan to include activities designed to ensure the continuing visibility, accessibility and use of the results after the end of the project, to ensure maximum impact and sustainability after the end of the project dissemination.

APPENDIX 6: MONITORING AND EVALUATION STRATEGY

Monitoring and Evaluation Strategy

A. Introduction

1. Monitoring and evaluation (M&E) will play an important role in ensuring an effective, efficient, and sustainable outcome of the project leading to the intended medium term impact. The detailed targets for project impact by 2025 and its outcome by 2020 are defined in the project design and monitoring framework (DMF). It is envisaged that the project will contribute to an increase in the number of workers with formal technical and vocational education and training (TVET) qualifications in nursing, the kindergarten industry, nursing for the elderly, and rural medical training which in turn will lead to improved service levels in these key areas of public service.

2. At the outcome level, strengthened capacity of the formal TVET system to meet labor market needs is intended to increase the number of graduates in the above stated skill areas. This will require implementing a coherent and strong project performance monitoring system (PPMS) in the two schools to monitor project performance (see Table 1) across the four outputs: (i) TVET capacity strengthened in pilot schools; (ii) pilot programs implemented in project schools; (iii) buildings, campus facilities, and equipment upgraded; and (iv) project management support implemented.

Table 1: Summary of Monitoring and Evaluation Strategy

Linkage	DMF	
Objectives	Impact, Outcome and Outputs	
	Monitor progress towards achieving outputs and outcomes	
	Continuous monitoring to improve performance	
	Capacity building to implement PPMS	
Baseline Study	Project management consulting firm	
Evaluation Study	Completion Report	Project management consulting firm
Project Monitoring	Implementation monitoring (with training databases, feedback on project training)	
	Results-based monitoring (General, SAP, GAP, EMP, and other action plans)	
	Tracer studies (graduates and employment)	
	Project PPMS Manual	
Policy Studies	Elderly care and TVET in Guangxi Zhuang Autonomous Region Meeting the teacher training challenge for kindergarten teachers in Guangxi Zhuang Autonomous Region	
Reporting	Bi-annually; Annually; Mid Term, Project completion.	
Reviews	Bi-annually; Annually; Mid Term, Project completion.	
Dissemination of findings	Horizontal and vertical (stakeholders, government authorities, communities, institutions, employers etc.)	
	Government and ADB web-sites	
	Electronic and hard news bulletins and promotion materials	
PMO and implementing agency capacity building	Understanding results-based M&E workshop (2 days Q1 Y1)	
	Understanding the PPMS workshop (1 day Q2 Y1)	
	Annual Refresher Training to Upgrade Skills in Project - Monitoring and Reporting workshops (Q1 in Years 2 and 3)	
	On-the-Job Mentoring for Project Monitoring and Reporting	

DMF = design and monitoring framework, EMP = environmental management plan, GAP = Gender Action Plan, M&E = monitoring and evaluation, PPMS = project performance management system, SAP = social action plan, TVET = technical and vocational education and training.

3. The objectives of the M&E strategy are to (i) ensure sustainability, (ii) monitor progress towards expected outputs and outcomes, (iii) provide a mechanism for continuous monitoring and review to improve performance as the project rolls out, (iv) build the capacity of the project management office (PMO) and implementing agencies to implement an effective PPMS that will monitor progress towards the expected results and targets set out in the DMF.

B. Baseline and Evaluation Reports

4. A cornerstone of the M&E strategy is a results-based approach to M&E. Two linked studies will be undertaken: (i) baseline study including an ex ante impact assessment, and (ii) a completion report including an interim ex post ante assessment.

5. A **baseline survey** will be undertaken by the PMO, with support of the consulting firm within the first 6 months of consultant mobilization. The objective is to establish baseline data for the qualitative and quantitative indicators and targets set out in the DMF and other subsidiary performance measures included in the project design. This will include collection of base data, computation and analysis of qualitative and quantitative data based on DMF, and additional qualitative and quantitative indicators developed by the consulting team in consultation with local stakeholders. Disaggregated data will be collected at each of the two project TVET institutions (staff, students and management), Xiangsihu Investment and Development Company (XIDC), contractors, and from other relevant sources as defined in the PPMS.

6. A **midterm review** will be conducted approximately two years into the project implementation. At this stage, in addition to a routine progress review, a detailed review of the TVET improvement strategies will be carried out and adjustments made to those strategies and related capacity building programs as appropriate.

7. **Completion report.** This study will be carried out at project completion. Its purpose is to validate what results were achieved by measuring how far the project has progressed towards the targets set out in the DMF and by identifying factors, which contributed to or impeded progress. The study will repeat relevant aspects of the baseline survey and include quantitative and qualitative data. Qualitative methods provide a potential value-added contribution, often overlooked in results-based monitoring and reporting. The advantage of this approach is that data collection can be flexible and take on themes to provide insights into discrete aspects of the project as it rolls out.

C. Project Monitoring

8. Internal project monitoring will be the responsibility of the PMO. The specific responsibility for the design of the PPMS will lie with the PMO officer responsible for M&E supported by the consultant team leaders (international and national). Staff responsible for M&E within each implementing agency will also participate in the design. The implementing agency staff will assume a vital role in monitoring implementation of all aspects of programs included as sub-outputs, It is expected that each IA will have a core M&E team of three part time staff.

9. Project monitoring will take place at three distinct but closely connected levels: (i) monitoring implementation; (ii) monitoring results, i.e., progress towards the project outputs and outcomes; and (iii) monitoring and assessing impacts.

D. Implementation Monitoring

10. Implementation monitoring will focus on monitoring timely implementation and completion of activities against planned targets. The monitoring process will include identifying management and implementation issues that exist and steps being taken to resolve them. Implementation monitoring is undertaken within the framework of the timelines and targets of each TVET institutions annual work plan. Much of the quantitative data for monitoring implementation at the activity level will come from internal mechanisms that have been built into the design of the project interventions.

11. This will include collecting *quantitative* data on the number of teachers trained across all project interventions, the equipment procured and facilities upgraded; the number of revised programs implemented, the number of new programs implemented, the number of senior and middle managers participating in capacity building activities, etc.

12. *Qualitative* data will also be collected on an on-going basis from training workshops, implementation teams, mentor reports, and international and national consultants who are supporting implementation. Data could include, for example, information on industry advisory groups, the competency-based curriculum being developed, teacher training workshops, and other activities. Summary tables of the number trained by output and activity will be produced every three months and forwarded to the PMO M&E officer responsible for the consolidation of the data from all the project TVET institutions for project bi-annual annual progress, and the midterm and final reports.

13. Collected data will be disaggregated by gender, education and social background, and other relevant data fields, specific to the kind of training being offered and will be integrated into the bi-annual and annual progress, midterm and final reports along with training data. To support the monitoring process, a *trainee database* will be developed to track all project training. These trainee databases will be developed under the guidance of the TVET and M&E consultants where existing management information systems in the schools and colleges cannot meet project data requirements. The databases should be simple, sustainable and user friendly.

E. Results-based Monitoring

14. Monitoring progress towards expected results will be reported bi-annually, annually, at midterm and at completion of the project to assess the extent to which project inputs are contributing towards achieving the expected outputs and outcomes in the DMF. The focus from the midterm monitoring report onwards should move on beyond a simple description of project activities completed to gathering evidence of 'change' or 'improvements' as a result of the project interventions. The purpose of results-based monitoring is to show how project interventions are contributing towards improving the quality and relevance of programs, strengthening partnerships, and improving human resources and management.

15. An environmental management plan (EMP) has been developed for the project. The EMP defines all anticipated impacts related to civil works and campus operation, and mitigation measures to avoid or reduce these impacts to acceptable levels. It defines the responsibilities, procedures, and budgets for implementation of environmental management throughout the project. The EMP will be monitored by the PMO and the XIDC, supported by the national environment consultant.

16. The project social and gender action plans (SAP and GAP) with indicators and targets include actions aimed at improving the social inclusiveness of the project and gender awareness among stakeholder groups, as well as encouraging involvement of

under-represented social groups in project activities and the programs supported by the project. As a gender mainstreaming project appropriate output targets and indicators have been integrated in the project DMF. The SAP and GAP will be monitored as part of the PPMS by the PMO with support from the social and gender development and M&E consultants.

F. Studies

17. Two studies will be conducted under the project and managed by the PMO. They include a study on elderly care and TVET provision in Guangxi Zhuang Autonomous Region. The study will outline the scope of the issues, needs, and possible role of TVET providers in addressing new job service areas. The second will focus on the methods for in-service and pre-service training of kindergarten teachers in the province. These studies will help to identify policy and program level recommendations to help Nanning Municipal Government and Guangxi Regional Government to better address emerging issues and opportunities for TVET development.

G. Reporting

18. Project progress reports will play an important role in demonstrating accountability and in influencing program adjustments based on evidence of the findings. The head of the PMO and implementing agencies will have overall responsibility for preparing all required project reports for their respective institutions (i.e., biannual, annual, midterm, and completion reports).

19. These progress reports will focus on reporting progress towards outputs, including details of inputs and activities completed. They will include a summary table of the number of persons trained against planned targets, the findings of the training evaluation reports, and key milestones achieved during that period. The reports will be transparent in reporting successes and difficulties in achieving targets accompanied with reasons and proposed solutions. Where relevant, results of structured interviews, special reviews or policy studies will be summarized and included in the reports.

20. To ensure a consistent and seamless flow of information, a simple report template by output will be developed by the PMO to guide the process and direct attention to key areas of importance. The reporting format will be standardized to enable technical reports from the schools to be compiled into one project report for the government and ADB. All implementing agency reports will be submitted electronically to the PMO. The PMO will have overall responsibility for compiling the project reports with support from the project consultants.

H. Annual Review and Evaluation Workshops

21. The PMO will bring together for project review workshops, a cross-section of stakeholders and beneficiaries from the schools, enterprises and industry, and relevant government departments. These workshops will be held annually with special expanded events at midterm review and project completion.

22. The workshops will provide a means to review progress and achievements within and across both project TVET institutions as well as foster synergy, exchange ideas, and build on lessons learned.

23. The outcomes of the annual review will be incorporated into the ADB Annual Progress Report. The final study results will form the basis of the project completion report, which will be submitted at the end of the project period.

I. Dissemination of Findings

24. Dissemination of the project findings will be made horizontally and vertically to encourage organizational and institutional learning and an exchange of ideas across the various stakeholder groups. This will be undertaken through the government and ADB website, and through news bulletins (electronic and hard) produced by the PMO that highlight project achievements. They will be distributed to schools, government authorities, industry partners, and communities.

J. Capacity Building for Project Monitoring and Evaluation

25. The designed PPMS will take into account the need for standardized formats, procedures, and data collection instruments to enable easy integration of data into the project progress reports. The approach to capacity building within the two TVET institutions is to build a small but strong team through annual training and follow-up mentoring support in each institution. The PMO officer responsible for M&E, supported by the consultant team, will take the lead in designing and conducting staff training with a supporting manual prepared to help implement the PPMS on a consistent basis at all levels.

26. At the municipal level, a workshop will be held for the M&E staff from Nanning Education Bureau, Nanning Health Bureau, and other project stakeholders if required to familiarize them with the PPMS and its operation.

27. The M&E officer at the PMO will lead on-the-job mentoring sessions with guidance from the M&E Consultant. The proposed activities are as follows:

- (i) Understanding results-based M&E regional workshop (2 days in Q1, 2014).
- (ii) National training workshop in proposed PPMS.
- (iii) Annual refresher training to upgrade skills in project monitoring and reporting.
- (iv) On-the-job mentoring for project monitoring and reporting (Years 2 and 3).

K. Draft Outline Project Performance Monitoring System

28. A draft PPMS has been prepared during the project design and is set out below as Table 2. This PPMS will be further developed at the commencement of project implementation with the support of the loan consultants, including fully populating the 2013 baseline performance and setting targets where the absence of baseline data currently prevents that. The project legal documents will require full PPMS, in a form acceptable to ADB, to be fully operational within 6 months of loan effectiveness.

Table 2: Draft Outline Project Performance Monitoring System

Item	Performance Monitoring Indicator	Target (by unless stated)	Baseline Performance (2013 unless stated)	Data Source	Reporting Frequency	Current Performance	Notes
1.	Impact Indicators (to be achieved by 2025)						
1.1	Gross enrolment rate for 3-year preschool	75%	54% in 2010	NEB statistics	Annual		1
1.2	Gross enrolment rate for 1-year preschool	95%	74% in 2010	NEB statistics	Annual		1
1.3	Ratio of rural doctors / 1,000 people	1.10	0.76 in 2009	NHB statistics	Annual		1
1.4	Ratio of licensed nurses / 1,000 people	3.14	1.39 in 2009	NHB statistics	Annual		1
1.5	Gross domestic product	tbd	tbd	NMG statistics	Annual		2
1.6	GDP per capita	tbd	tbd	NMG statistics	Annual		2
1.7	Average Age expectancy	tbd	tbd	NMG statistics	tbd		2
2.	Outcome Indicators (by 2020)						
2.1	Teachers trained in new elderly care curriculum	20	0	NHS MIS	Annual		3
2.2	Students trained using new elderly care curriculum	2000	0	NHS MIS	Annual		3
2.3	Employer satisfaction with knowledge, skills and competencies of graduates from the project TVET institutions	tbd	tbd	Employer surveys	Baseline and project completion		4
3.	Output Indicators						
	(a) TVET capacity strengthened in project schools (output 1)						
3.1	Teachers trained in student- centered pedagogy and competency- based curriculum development in both schools						
3.1.1	Proportion of teachers trained	80% by end of 2017	0	NHS & NVTS MIS	Annual		3

Item	Performance Monitoring Indicator	Target (by unless stated)	Baseline Performance (2013 unless stated)	Data Source	Reporting Frequency	Current Performance	Notes
3.1.2	Proportion of women teachers so trained	At least 50% by 2017	n/a	NHS & NVTS MIS	Annual		
3.2	Development of gender inclusive training, curriculum, and recruitment outreach materials	By end 2017	n/a	Expert review of materials	Once –off endorsement		
3.3	Leadership workshops held by 2016						
3.3.1	No of workshops	5	0		Bi-annual		
3.3.2	No of participants	90	0		Bi-annual		3,5
3.3.3	Proportion of women participants	40%	n/a		Bi-annual		
3.4	Human Resource Development Framework, including indicators of quality practice established and implemented in both schools	by end of 2016	n/a	Expert review of materials	Once –off endorsement		6
3.5	Elderly care curriculum developed and approved	by mid-2015		NHS review and approval of materials	Once –off endorsement		6
(b) Pilot programs implemented in Project schools (output 2)							
3.6	Rural training bases established with local practitioners as trainers by 2015						
3.6.1	No of training bases	2	0	Project progress reports	Once-off milestone		6
3.6.2	Number of nursing trainees	tbd	0	NHS statistics	Annual		5
3.6.3	Proportion of women nursing trainees	At least 80%	tbd	NHS statistics	Annual		
3.6.4	Number of rural doctor trainees	tbd	0	NHS statistics	Annual		
3.6.5	Proportion of women rural doctor trainees	At least 30%	tbd	NHS statistics	Annual		5

Item	Performance Monitoring Indicator	Target (by unless stated)	Baseline Performance (2013 unless stated)	Data Source	Reporting Frequency	Current Performance	Notes
3.7	One kindergarten training base functioning at NVTs using action research and inclusive design features	By end 2016	0	Project progress reports	Once-off milestone		6
3.7.1	Number of trainees	?	?	NVTs statistics	Annual		3
(c) Buildings, campus facilities, and equipment upgraded (output 3)							
3.8	Civil works and facilities completed by end 2017						
3.8.1	No of buildings for NVTs	13	0	Project progress reports	Bi-annual		6
3.8.2	No of buildings for NHS	5	0	Project progress reports	Bi-annual		6
3.9	Green campus policy designed, EMS developed and implemented on both campuses	By end 2017	n/a	Project progress reports	Once –off endorsement		6
3.10	Training equipment installation in the 2 TVET institutions completed	By end 2017	n/a	Project progress reports	Once-off milestone		6
(d) Project Management Support Implemented							
3.11	Appointment of consultant completed	By end Q1 2014	n/a	Project progress reports	Once-off milestone		
3.12	Initial training of PMO and implementing agency staff	By end Q1 2014	n/a	Project progress reports	Once-off milestone		
3.13	Establishment of an operational PPMS	By end Q3 2014	n/a	Project progress	Once –off endorsement		6

reports

Item	Performance Monitoring Indicator	Target (by unless stated)	Baseline Performance (2013 unless stated)	Data Source	Reporting Frequency	Current Performance	Notes
3.14	Evaluate and disseminate experiences	By end 2018		Stakeholder feedback	Once –off endorsement		6
3.15	Number of PMO and IA staff successfully trained	?	0	PMO & IA records	Bi-annual		3
3.15	Performance of Consultant(s)	Good or very Good		During ADB supervisory missions	Annual		6
	(e) Other Outputs						
3.16	Number of temporary construction jobs created.		0	Contractor records			3
3.17	Number of permanent jobs created in the project TVET institutions	106	0	NHS and NVTS records			3
	4. Safeguard Compliance Indicators						
	4.1 Involuntary Resettlement						
4.1.1	Land acquired for project purposes	0	0	PMO			
4.1.2	No of persons affected by land acquisition	0	0	PMO			
	4.2 Environmental Protection						
4.2.1	Percentage of EMP actions successfully discharged	100%	0	IA MIS			6
	4.3 Social Safeguards and Development						
4.3.1	Percentage of Social Action Plan actions successfully discharges	100%	0	IA MIS			6
4.3.2	Percentage of Gender Actions successfully discharged	100%	0	IA MIS			6
4.3.3	Percentage of female participants attending project capacity building training sessions	50%	n/a	PMO MIS			
4.3.4	Percentage of women obtaining permanent jobs	80%	n/a	NHS & NVTS MIS			

Item	Performance Monitoring Indicator	Target (by unless stated)	Baseline Performance (2013 unless stated)	Data Source	Reporting Frequency	Current Performance	Notes
	Percentage of women obtaining construction related jobs	30%	n/a	Contractors			
5.	Project Implementation Progress Indicators						
5.1	Contract Letting						
5.1.1	Number of contracts let on time	>70%	n/a	XIDC progress reporting			
5.1.2	Number delayed 3 months or less	<20%	n/a	XIDC progress reporting			
5.1.3	Number delayed 3 to 6 months	<10%	n/a	XIDC progress reporting			
5.1.4	Number delayed 6 to 12 months	0%	n/a	XIDC progress reporting			
5.1.5	No delayed more than 12 months	0%	n/a	XIDC progress reporting			
5.2	Contract Completion						
5.2.1	Contracts completed on time	>70%	n/a	XIDC progress reporting			
5.2.2	Number delayed 3 months or less	<20%	n/a	XIDC progress reporting			
5.2.3	Number delayed 3 to 6 months	<10%	n/a	XIDC progress reporting			
5.2.4	Number delayed 6 to 12 months	0%	n/a	XIDC progress reporting			
5.2.5	No delayed more than 12 months	0%	n/a	XIDC progress reporting			
5.4	Disbursement Progress						
5.4.1	Percentage of Planned cumulative Disbursement	100%	n/a	NFB			6
5.4.2	Percentage of Current Year Target	100%	n/a	NFB			6
5.5	Covenant compliance						
5.5.1	Number fully complied with	80% or more	n/a	Progress			6

reports

Item	Performance Monitoring Indicator	Target (by unless stated)	Baseline Performance (2013 unless stated)	Data Source	Reporting Frequency	Current Performance	Notes
5.5.2	Number with delayed compliance	20% or less	n/a	Progress reports			6
5.5.3	Number not complied with	none	n/a	Progress reports			6
5.6	Capacity Building Inputs						
	Amount of consulting time	125 mos.	0	Progress reports			
	Number of Training days	tbd	0	Progress reports			

Note: Relevant indicators should be disaggregated by sex, ethnicity, *hukou*, and social economic status.

APPENDIX 7: CONSULTING TERMS OF REFERENCE

PACKAGE 1: START - UP CONSULTANCY

Selection by: Appointment of Individual Consultant Procedure

Position: **Start-up Procurement and Project Implementation Specialist** (national, 5 person-months)

1. The specialist shall have at least 10 years extensive and broad project management experience of the implementation of ADB and/or World Bank loan projects in the People's Republic of China (PRC). Good working knowledge of Asian Development Bank's (ADB) business practices, procurement guidelines, procedures for the appointment of consultants, project financial management and disbursement procedures, and the ADB Safeguard Policy Statement (2009) is essential. The specialist will have excellent Chinese language, very good English language skills and shall be computer literate (word processing, spreadsheets, presentation software, project planning software, etc.).

2. The specialist will provide advice and support to the project management office (PMO) and Xiangsihu Investment and Development Company (XIDC) in the initial setting up of (i) project management systems, (ii) procurement systems, and (iii) record keeping.

3. In conjunction with the PMO procurement agent the specialist will provide advice on (i) procurement procedures in accordance with the ADB procurement guidelines; (ii) the timely recruitment of the project management support consulting firm making use of the ADB advance procurement action facility (to include involvement in review of expressions of interest and shortlisting, preparation for the request for proposal and bid evaluation; and (iii) other advance contracting activities.

4. The specialist will be responsible for (i) initial establishment of PMO document control and record keeping in advance of project implementation, (ii) ensuring that ADB safeguards policies and adherence thereto, (iii) identification of training needs for project implementation activities, (iv) on-the-job training and briefings on the above to PMO and implementing agency staff as appropriate, (v) preparation of project financial management procedures, (vi) establishment of project accounting systems at PMO and implementing agency levels, (vi) setting up project disbursement procedures in consultation with the Nanning Municipal Finance Bureau, (vii) financial training in project accounting, disbursement procedures (including especially the statement of expenditure [SOE] procedures and record-keeping at implementing agency level), and project financial management.

Budget	\$ (000)
National Consultants: (5 months)	50
Total:	50

PACKAGE 2: TVET STRENGTHENING & PROJECT MANAGEMENT SUPPORT

Selection by: Quality Cost Based Selection (QCBS) using the standard 80:20 quality cost ratio.

5. **Note.** Fairness and transparency in the recruitment process requires that consulting firms or individual consultants competing for a specific assignment do not derive a competitive advantage from having provided consulting services related to the assignment in question. To that end, the borrower in this case shall make available to all the shortlisted consultants together with the request for proposals all information that

would in that respect give a consulting firm or an individual consultant a competitive advantage, i.e. those consulting firms and/or individual consultants who provided services in the preparation of the project.

A. Introduction

6. This package will provide comprehensive and integrated support to the PMO and the implementing agencies. Under the overall direction and coordination of an international team leader the consulting will address the two main capacity building needs of the project:

- (i) **Project management support.** This part will be mainly directed at the PMO and XIDC as the implementation agency responsible for the procurement and implementation of civil works and equipment needed to improve TVET infrastructure. However this part will also provide support in key cross cutting aspects including project monitoring and evaluation, social inclusiveness and gender.
- (ii) **Strengthening of technical and vocational education and training.** This part will be mainly directed at the two project schools, Nanning Health School (NHS) and Nanning No. 4 Vocational and Technical School (NVTS), and provide support and related training in the areas of TVET leadership, competency-based curriculum (CBC) development, teacher learning methods and materials development, elderly care curriculum development, kindergarten and rural training bases, and impact assessment.

B. Experience to be Demonstrated by the Consultant and Scope of Work

1. Project Management Support

a. Experience Required

7. The selected/engaged consulting company must be able to demonstrate proven experience in conducting previous capacity building for the project management and implementation support of ADB loan projects in the PRC. This experience must in turn demonstrate an in depth understanding of potential implementation issues and how such issues can be both mitigated against and resolved.

b. Scope of Work

8. The management support consultants will work primarily with Nanning education project management office (NPMO) the, XIDC, and also with NHS and NVTS in providing advice, assistance and necessary training on the following:

- (i) The development and periodic updating of comprehensive project implementation plans.
- (ii) The introduction of document control and project management systems for the project, with particular attention paid to procedures for monitoring and control of project progress against implementation plans.
- (iii) The development of procedures and formats for the reporting of project progress to the ADB, including the procurement plan, construction progress, withdrawal of funds and payment to contractors and suppliers and the implementation of action plans necessary to facilitate compliance with the ADB Safeguards Policy Statement (2009) and specific loan assurances contained in the project legal documents.
- (iv) The development of effective engineering design and construction supervision systems to facilitate adherence to quality standards and completion targets.

- (v) Procurement advice and support as may be needed to fill any gaps in experience or know-how on the part of NPMO, XIDC, and the selected/engaged procurement agent (tendering company). Particular attention is to be paid to (a) ensuring that adequate guidance and training is provided to XIDC for the effective control and adherence to ADB guidelines in conducting the project procurement they will be responsible for; and (b) integrating the requirements for “green procurement” in a manner that is fully compatible with ADB procurement guidelines.
- (vi) Provide advice and training on the establishment and operation of project accounting and disbursement procedures.
- (vii) Provide advice and training on project financial controls, reporting and audit
- (viii) Establish a Project Performance Monitoring System (PPMS) including its detailed design, data collection and analysis procedures, and the provision of training in its use. In order to avoid duplication of resources the outcome of this work should as far as possible be compatible with the PRC Ministry of Finance project reporting system as well as related local information gathering and reporting systems.
- (ix) Develop and advise on the implementation of an environmental monitoring program and reporting procedures to ensure appropriate mitigation measures are undertaken during the project construction and operational phases of the project facilities based on the environment management plan (EMP) approved during the project preparation phase.
- (x) Provide advice, training and support to the two project schools regarding the project environmental management system (EMS) initiative.
- (xi) Ensuring that requirements of the agreed social and gender action plans (SAP and GAP) are fully integrated into project monitoring systems.

2. TVET Strengthening

a. Experience Required

9. The selected/engaged consulting company must be able to demonstrate proven experience in conducting previous vocational education assignments in developing countries, as well as in depth knowledge of relevant government policies, strategies and plans, and specific issues relevant to the development of education and health services in the PRC.

b. Scope of Work

10. The objective of this part of the package is to support I, NVTS, and Nanning Municipal Government (NMG) in the improvement of the quality of TVET within Nanning Municipality. The TVET consultants will work predominantly with the NVTS and NHS, but also with the PMO and other relevant stakeholders, providing advice, assistance and necessary training to support improvements in the quality of formal TVET:

- (i) Strengthening and/or development of core curriculum standards and CBC for nurse education, elderly care, rural doctors’ education and kindergarten teacher education, and incorporating employability and entrepreneurship skills in curriculum modules.
- (ii) Strengthening and/or development of curriculum and teaching and learning materials.
- (iii) Strengthening and/or development of vocational instructor skills through short term and an in-service training programs.
- (iv) Developing programs to maximize TVET management capacity including setting up of partnership programs nationally and internationally.

11. The consultants will also support NVTS and NHS in:
 - (i) strengthening partnerships between employers and TVET institutions to improve system quality and responsiveness;
 - (ii) improving industry advisory groups for nurse education, nurse education for the elderly, rural doctors education and kindergarten teacher education; and
 - (iii) enhancing TVET policy research by providing inputs to the policy studies in strategic areas of elderly care and in-service and pre-service kindergarten teacher training.

12. Support will be given to the NEB, NEH, PMO, NHS, and NVTS in the improvement of educational leadership and management through:
 - (i) provision of leadership training in curriculum, teaching-learning methods, assessment, monitoring and mentoring, assessment, community relations, industry relations, and educational leadership methods; and
 - (iii) overseas short-term training in educational leadership and management through study tours to overseas TVET institutions, TVET authorities, Industry training facilities, and program consulting firms.

13. The consultants will provide support for two model training bases, for kindergarten and rural health training. For the **kindergarten** training base, the consultants will assist the NVTS to:
 - (i) develop a pedagogical and physical training base for kindergarten teachers based on 'best' national and international practices;
 - (ii) monitor and evaluate pedagogical processes and approaches adopted by the model kindergarten;
 - (iii) conduct action research with NVTS students, teachers and partner institutions;
 - (iv) disseminate information and findings to other institutions, authorities and society; and
 - (v) develop plans and strategies for financial, human, and physical sustainability.

14. For the **rural health training base(s)**, the consultants will assist the NHS to:
 - (i) select suitable site(s) for the location of rural health base(s);
 - (ii) develop a pilot curriculum for nurse and rural doctor training, including delivery modes, assessment methods, and syllabus;
 - (iii) develop a pedagogical (training) and physical (facilities) model for rural health base(s) in line with 'best' national and international practices;
 - (vi) monitor and evaluate training processes and approaches adopted by the rural health bases;
 - (v) monitor and evaluate clinical processes and approaches adopted by the rural health base(s);
 - (vi) conduct a comparative analysis of strength and weaknesses of existing training program(s) and piloted training program; and
 - (vii) prepare and disseminate good practice material(s) regarding the pilot rural health training base(s).

3. Budget and Summary of Consulting Inputs

a. Overall Budget Summary

Item Description	Unit	Number	Unit Cost	Estimate	Notes reference
International consulting fees (TL)	Month	10	17,000	170,000	(i)
International consulting fees	Month	19	15,000	285,000	
International Per Diem	Month	29	3,000	87,000	

Item Description	Unit	Number	Unit Cost	Estimate	Notes reference
International Travel	Trip	14	1,500	21,000	(ii)
National consulting fees (DTLs)	Month	24	6,000	144,000	(iii)
National consulting fees	Month	67	4,000	268,000	(iv)
National Per Diem	Month	91	2,000	182,000	
National Travel	Trip	56	600	33,600	
Office Equipment for consultants	LS			5,000	(v)
Office rental for consultants	Month	48	1,000	48,000	(vi)
Office support	Month	48	2500	120,000	(vii)
Surveys & consultations	PS			20,000	(viii)
Local Travel	Month	125	100	12,500	
Workshops	PS			50,000	(viii)
Document Preparation	LS			10,000	(v)
Learning Resources	PS			132,000	
PMO & XIDC Training	PS			170,000	
Conference	PS			100,000	
Overall Total				1,858,100	

LS= lump sum as per consultant's financial proposal, PS= fixed provisional sum administered by the Client via the loan consulting contract.

b. Analysis of Consulting Inputs

Expertise	International		National		Notes
	Months	Trips	Months	Trips	
Team leader	10	4			(ix)
Implementation Support					
Deputy team leader (project management)			12	4	(x)
Environmental management systems	2	1	2	1	
Environmental monitoring			3	4	
Financial management			6	3	
Social development, poverty, & gender			6	3	
Monitoring and evaluation	2	2	6	4	
Subtotal	4	3	35	19	
TVET Strengthening					
Deputy team leader, (TVET strengthening)			12	4	
CBC development training	4	1	6	3	
CBC development training (follow up)			3	9	
NHS content, interpersonal communication			1	0	(xi)
NHS content, nursing occupational risk management			1	0	(xi)
NHS content, elderly dental care			1	0	(xi)
NVTS kindergarten content specialist			6	9	
Teacher-learning methods, training, & materials development	4	2	6	3	
Elderly care curriculum development and training specialists	3	2	8	3	
Kindergarten training base	2	1	6	4	
RDTB & curriculum development and training	2	1	6	2	
Subtotal	15	7	56	37	
Overall Total	29	14	91	56	

CBC = competency-based curriculum, NHS = Nanning Health School, NVTS = Nanning No. 4 Vocational and Technical School , TVET = technical and vocational education and training.

c. Notes and Assumptions

- (i) The team leader is expected to command a slight premium to the other international consultants given the extensive and broad experience required.
- (ii) This unit cost rate assumes economy class travel from Europe as the norm. In practice costs will fluctuate dependent on route and season of travel.
- (iii) The deputy team leaders will require excellent English as well as relevant professional qualification and experience. They can therefore be expected to command a significant premium in fee rate (50% assumed) to other national consultants.
- (iv) In practice the fee rates of national experts will vary quite significantly depending on their discipline and seniority, but \$4,000 per month is

considered a reasonable assumption for the average rate based on past QCBS proposals.

- (v) This is an item where consultants are expected to assess the needs of the consultancy and price for in their bid.
- (vi) The main parts of the consulting services are assumed to be provided over a 4 year period. The consultant will be responsible for their office rental costs.
- (vii) Employment by the Consultant, over a four year period, of an office secretary/interpreter with excellent English language skills.
- (viii) This is a provisional sum (therefore not part of the competitive bid) to be included in the consulting contract, but administered at the discretion of the PMO.
- (ix) The international team leader will be an education generalist with previous experience of TVET strengthening, leadership development, and in the impact evaluation of TVET investments.
- (x) This position requires good practical experience of ADB project procurement, including ICB procurement.
- (xi) Some national consulting expertise is expected to be available within Nanning and the overall number of trips has been estimated taking this into account. For these positions local expertise is known to be available, and use of experts from Nanning would be more efficient.
- (xii) An exchange rate of \$1 = CNY6.1 is assumed in calculating the US\$ equivalents of local costs.
- (xiii) The development of learning resources relates to the process of creating learning materials and teaching guides necessary to institutionalize the new curricula developed under the project.
- (xiv) At least one conference is envisaged to discuss the role of TVET as a facilitator for improved public services and the opportunities for regional cooperation within ASEAN and South East Asia.
- (xv) PMO and XIDC domestic and overseas training is to support other capacity building carried out in Nanning by providing selective training within the PRC and perhaps overseas on best practices.

C. Detailed Terms of Reference for Individual Consultants

1. Overall Team Leadership

- a. Team Leader/TVET Capacity Building, Leadership, and Impact Evaluation Specialist** (10 person-months international consulting input)

15. Human Resources and Partnership Development Specialist/Team Leader shall have a TVET related graduate degree in human resources management or other relevant degree and at least 15 years of relevant experience in planning, developing, implementing TVET projects, TVET management capacity building and TVET leadership development in developing countries, preferably in ASEAN countries.

16. The team leader will be in charge of supporting activities to be undertaken during the implementation phase and will be responsible for the field management of the technical assistance team. Team leader will be the primary point of contact for the ADB and the executing agency and implementing agency. As team leader, the specialist will be responsible for the overall coordination and implementation of the TA. Specifically, the team leader will

- (i) plan and coordinate the activities of the other international and national consultants to ensure that the outputs and reports meet all donor and

countries and in the broader international context, for potential collaboration with Nanning Health School and Nanning No 4 Vocational school, respectively,

- (xii) help the schools to design the training plan
- (xiii) design and deliver workshops on good practice in educational institution-enterprise partnerships,
- (xiv) support development and implementation of a strategy for dissemination of learning to relevant other education institutions and stakeholders,
- (xv) identify and train school team to conduct graduate tracer study, from design through to data analysis and reporting and subsequent tracer study evaluation and refinement for implementation with subsequent graduating cohorts.

2. Project Management Support

b. Deputy Team Leader, Project Management (national, 12 person-months)

19. This expert shall be a professionally qualified civil engineer and must have at least 20 years relevant work experience. The expert shall have a background in all aspects of ADB project management; and will also be thoroughly conversant with ADB's procedures and guideline publications; and will be expected to possess good report writing, presentation and training skills. Previous successful team leadership on the implementation of at least two ADB or World Bank funded loan projects is also required.

20. This position will assist the team leader by discharging coordination and supervisory responsibilities in relation to the project management support part of the consulting assignment. Specific duties of the position will include, but not be limited to providing advice and support to NPMO, XIDC and the project TVET institutions on:

- (i) implementation planning,
- (ii) design review and support to bidding document preparation (especially ICB),
- (iii) reporting (bi-annual progress reports and project completion report),
- (iv) procurement (annual updating of procurement plan, backstop advice),
- (v) preparation of project management training plan, and advice, support and participation in its execution),
- (vi) adherence to ADB safeguard policy statement and project agreement covenants, especially those pertaining to building codes and standards. The specialist will review designs, drawings and the ICB bidding documents, including the identification of potential technical problems and suggesting means of resolving these, including the incorporation of health, safety and environmental protection measures where appropriate.

21. Within the area of construction supervision and management the specialist will

- (i) advise on approval of construction methods,
- (ii) ensure work is undertaken according to the intent of contract specifications,
- (iii) exercise control over construction quality,
- (iv) ensure adherence to (a) contract work programs and recovery of slippage, (b) site health and safety procedures, (c) record keeping systems to protect client interests in event of claims etc., (d) undertake claims assessment and determinations, (e) assess and make determination on the content and valuation of any proposed variations to contracts during construction (whether initiated by the contractor or the client), (e) undertake inspection and handover upon completion of construction.

c. Environmental Management System Specialist (International 2 person-months; national 2 person-months)

22. The EMS specialists shall have a postgraduate degree related to environmental management and a minimum of 10 years experiences in establishing environmental management systems for organizations. The specialists will facilitate a participatory process to develop a green campus policy and establish an environment management system (EMS) on both campuses by developing simple business tools based on a nationally or internationally recognized methodology.⁴² The EMS specialists will support NVTs and Nanning Health School (NHS) with:

- (i) conducting gap analysis and needs assessment, including training and capacity building needs assessment;
- (ii) refining the Green Campus Policy (as drafted in Appendix 3 of the Initial Environmental Examination), including definition of a vision, environmental objectives and targets;
- (iii) defining setup and TOR of the EMS committee and its members; (iv) defining specific environmental management programs (including, but not limited to, energy conservation program; solid waste management program, water saving program);
- (iv) preparing EMS documentation (manuals);
- (v) plan and conduct specific training and workshops on EMS for faculty and students of NVTs/NHS, including exposure to China Green Campus Network;
- (vi) organize and facilitate review workshop with TVET institutions to evaluate the EMS establishment process and define follow-up actions;
- (vii) write a best practice note on EMS establishment for TVET institutions for dissemination to other schools and colleges in Guangxi.

d. Environmental Monitoring Specialist (national 3 person-months)

23. The specialist shall have a postgraduate degree related to environmental engineering and a minimum of 10 years of experience in environmental management of ADB or IFI-funded projects and shall be familiar with relevant ADB environmental safeguards and project administration policies. The specialist will support the implementation of the EMP, including:

- (i) assess the project outputs' environmental readiness prior to implementation based on the readiness indicators defined in Table EMP.4;
- (ii) update the EMP including mitigation measures, monitoring plan, institutional arrangements, and training plan as necessary, to reflect the final project scope and detailed design, submit to ADB for review and disclosure;
- (iii) if required, update the IEE report for changes in the project during detailed design (for example if there is a scope change) that would result in adverse environmental impacts not within the scope of the approved IEE;
- (iv) support the executing agency, PMO, implement agencies, implementing units, and tendering companies in preparing tender documents; ensure that the bidding documents and civil works contracts contain provisions requiring contractors to comply with the mitigation measures in the EMP and that relevant sections of the updated project EMP are incorporated in the bidding and contract documents;
- (v) support XIDC-ES and PMO-SO in reviewing and approving contractors' site-EMPs and organizing the conduct of periodic environmental impact

⁴² E.g. U.S. EPA Office of Environmental Stewardship (2007). Environmental Guide for Colleges and universities <http://www.epa.gov/region01/assistance/univ/emsguide.html>

- monitoring;
- (vi) assist the NMG and PMO to establish a Grievance Redress Mechanism (GRM), and provide training for the PMO and GRM access points;
- (vii) Conduct regular EMP compliance verification, undertake site visits as required, identify any environment-related implementation issues, and propose necessary corrective actions;
- (viii) Prepare, on behalf of PMO, annual EMP monitoring and progress reports to ADB;
- (ix) provide training to PMO, implement agencies, implementing units, and contractors on environmental laws, regulations and policies, SPS 2009, EMP implementation, and GRM in accordance with the training plan defined in the EMP; and
- (x) assist the PMO, implement agencies and implementing units in conducting consultation meetings with relevant stakeholders as required, informing them of imminent construction works, updating them on the latest project development activities, and their rights under the GRM.

e. Financial Management Specialist (national, 6 person-months)

24. The national financial specialist shall be a professionally qualified accountant (CPA or similar) and must have at least 10 years work experience in financial management, at least 3 years of which should be on the implementation of ADB or World Bank funded projects in the PRC. Good working knowledge of ADB disbursement procedures (2012), ADB's *Financial Management and Analysis of Projects*, and the PRC Ministry of Finance's requirements for project accounting for ADB and World Bank funded projects is essential. The specialist shall

- (i) provide advice and support to PMO, XIDC and the project TVET institutions on the review and updating of project financial management procedures,
- (ii) conduct financial training (including regular reinforcement training) in project accounting, disbursement procedures (including the SOE procedures and record-keeping at IA and school level), internal control concepts and how they can be applied in schools, internal audit techniques, financial reporting and management etc.,
- (iii) assisting the Team Leader in the financial aspects of project progress reporting,
- (iv) undertake raining and capacity building of XIDC and schools financial staff in financial planning and related analysis, identification and mitigation of financial risks,
- (v) in collaboration of with Nanning Education and Health Bureaus and schools' Finance Directors identify financial management development needs resulting from sector and government reforms, and how these should be responded to (e.g. ensuring local financial management capacity is compatible with growing management autonomy of the TVET schools).

f. Gender and Social Development Specialist (national, 6 person-months)

25. The national gender and social development specialist shall be professionally qualified and must have at least 10 years work experience in gender and social impact assessment, preferably within the context of education and training projects. In addition the expert must be fully familiar with the requirements of ADB's social dimensions policies (gender, poverty, labor, indigenous peoples) and be able to demonstrate previous experience in the successful practical application of these policies during a previous project assignment(s). Knowledge of the education sector and ethnic minority issues is highly desirable.

26. The duties include, but are not limited to, providing advice and support to NPMO, XIDC and the project TVET institutions on:

- (i) Advice, and support in implementing the GAP and SAP;
- (ii) Provision of training in gender awareness and social issues of particular significance to the project and TVET schools generally (as outlined in the GAP) and SAP, including measures for ethnic minorities;
- (iii) Helping to set up monitoring and reporting systems for social, gender and ethnic minority related compliance and performance indicators and the provision of related training;
- (iv) Interpretation of social and gender related PPMS data with recommendations on required follow-up action;
- (v) Work with the TVET schools to identify social issues and develop action plans to make their programs more socially inclusive and relevant (e.g. human resources outreach, ethnic minority culture for inclusion in curriculum, gender issues in elderly care). In undertaking this task the expert should also liaise closely with project TVET capacity development experts working on curricula development etc.;
- (vi) Assist IAs to collect data and prepare social monitoring reports; and
- (vii) Undertake an analysis of gender issues, drawing from tracer studies (including wages for female TVET graduates and their employment occupations) and other sources of data.

g. Monitoring and Evaluation Specialist (national, 6 person-months).

27. The monitoring and evaluation specialist shall be highly numerate graduates with in depth knowledge of the design of management information systems (MIS). The specialist shall have a minimum of 10 years of experience in information management in the context of ADB- or IFI-funded projects and shall be fully familiar with the relevant ADB performance monitoring guidelines and requirements, most particularly the use of the design and monitoring framework (DMF), and the derivation from this of a project performance monitoring system (PPMS), including previous experience in PPMS design and making such a system operational. The M&E specialist will

- (i) provide advice and support to NPMO, XIDC and the project TVET institutions in for establishing a Project Performance Monitoring System (PPMS) including (a) its detailed design, data collection and analysis procedures, (b) the provision of an operating manual in its use, which should as far as possible be compatible with the PRC Ministry of Finance project reporting system as well as related local information gathering and reporting systems;
- (ii) support PMO as needed in any dialogue with ADB needed to gain agreement to the PPMS design;
- (iii) provide training on the theory and praxis of management information systems generally and performance management systems in particular, leading on to the specific concepts underlying the PPMS;
- (iv) provide on-the-job training on the content and operations of the PPMS for the project;
- (v) in consultation with the national environmental specialist, ensure that requirements of the agreed environmental management plan (EMP) are fully integrated into project performance monitoring systems;
- (vi) in consultation with the social and gender specialist in the TVET consulting team, ensure that requirements of the agreed social and gender action plans (SAP and GAP) are fully integrated into project performance monitoring systems;

- (vii) design and advise on the implementation of socio –economic surveys needed to collect baseline and subsequent performance data for the in the TVET Consultancy component;
- (viii) conduct M&E assessment and capacity building in the TVET Consultancy component;
- (ix) provide operational support to the PPMS and provide advice and solutions to any operational problems that are encountered; and
- (x) interpret data and prepare reports needed for regular performance progress reports required by NPMO, NMG, and ADB.

3. TVET Strengthening

h. Deputy Team Leader/TVET Management Specialist (national 12 person-months).

28. The Human Resources and Partnership Development Specialist/deputy team leader (DTL) shall have a TVET related graduate degree in human resources and/or partnership development least 15 years of relevant experience in planning, developing, implementing TVET projects. The DTL will have very good English language and communication skills, computer literacy skills and negotiation skills. The DTL will support and report to the team leader related to activities to be undertaken during the implementation phase and will be responsible for the field management of the TVET technical assistance team. In conjunction with the Team Leader, as DTL, the specialist will be responsible for:

- (i) overall coordination and implementation of the TA TVET component;
- (ii) planning and coordination of the activities of the other international and national consultants to ensure that the outputs and reports meet all donor and borrower requirements;
- (iii) organizing appropriate consultations throughout the project with key stakeholders both within and outside the government and the relevant bureaus and target school to reflect balanced views pertinent to the development of the project;
- (iv) ensuring sex-disaggregated data and gender and social analysis inclusions in all TVET reports/outputs and ensure timely completion and submission of the (a) inception report, (b) bi-annual reports, (c) midterm report, and (d) draft final and final TVET consultancy reports; and
- (v) assist the PMO in production of reports to be submitted to ADB and government agencies.

29. In addition, the specialist will assist the team leader to:

- (i) advise the PMO on project implementation, relevant procurement of TVET services;
- (ii) produce time-bound action plans ensuring timely implementation of components;
- (iii) undertake monitoring and review of TVET implementation strategies and formulation of possible improvements for ADB/NMG consideration
- (iv) assist the target schools and NHB and NEB to develop dissemination strategies and provide advice and guidance on their implementation,
- (v) develop and assist the target schools in the development and institutionalization of overall sustainability plans and strategy.

For both target schools (Nanning no 4 Vocational School and Nanning Health School and target programs the Specialist will:

- (i) Conduct human resource development (HRD) needs and demands analysis;

- (ii) Assess HRD management practice,
- (iii) Assess career development practices, from recruitment and selection to job placement,
- (iv) Design and provide training for management staff in planning, coordination and management of human resource development,
- (v) Support development of reference materials for development of quality HRD management practice,
- (vi) Design and deliver capacity building activities to support dissemination of learning through the project to other TVET health care and kindergarten teacher training institutions (secondary and tertiary TVET institutions and universities),
- (vii) Design in collaboration with Gender Specialist, and provide training for management staff, teachers, School enterprise partners and GZAR Education Bureau staff on principles of inclusiveness practice and develop strategies to develop inclusiveness in all aspects of the training program,
- (viii) Advise and support the target schools on the establishment of industry reference groups,
- (ix) Identify and assess existing partnerships between Nanning Health School and Nanning No 4 Vocational School and corresponding educational institutions at local, national and international levels,
- (x) Identify and assess existing Nanning Health School-enterprise partnerships,
- (xi) Identify good practice educational institutions providing health care training, with effective institution-enterprise partnerships, in the PRC, in ASEAN countries and in the broader international context, for potential collaboration with Nanning Health School and Nanning No 4 Vocational school, respectively,
- (xii) Design and deliver workshops on good practice in educational institution-enterprise partnerships,
- (xiii) Support development and implementation of a strategy for dissemination of learning to relevant other education institutions and stakeholders,
- (xiv) Identify and train school team to conduct graduate tracer study, from design through to data analysis and reporting and subsequent tracer study evaluation and refinement for implementation with subsequent graduating cohorts.

i. Competency-based Curriculum Development Training Specialists (international, 4 person-months, national 6 person-months).

30. The specialist shall have a post-graduate degree in curriculum studies with a focus on TVET / adult education. She/he shall have at least 15 years of experience in competency-based curriculum (CBC) development and implementation in the TVET sector. The specialist shall

- (i) undertake a needs-demands analysis within the two target schools and relevant programs,
- (ii) establish quality criteria for the education of teaching and lecturing professional CBC,
- (iii) develop CBC training framework and standards,
- (iv) develop core descriptors for employability skills to be contextualized across technical curricula,
- (v) develop effectiveness and efficiency measures to assess the quality of the strengthened CBC,
- (vi) improve CBC development guidelines for existing courses/modules,
- (vii) conduct CBC training workshops for staff of the target schools,

- (viii) develop materials and conduct workshops on authentic assessment strategies,
- (ix) develop of a training guides and manuals for training of target school staff on CBC development and implementation,
- (x) develop sample CBC lesson plans,
- (xi) assist the target schools to develop mechanisms for the monitoring of the effectiveness of curriculum dissemination;
- (xii) develop supplementary CBC training incl. self-directed learning materials for (a) beginner teachers and (b) advanced teachers in the two target schools,
- (xiii) establish and implement practical activities for CBC design,
- (xiv) establish strategies for allows for self-sustainable and long-term development of professional capacity in TVET CBC application.

j. For Follow-up Work: Nanning Health School Competency-based Curriculum Development Training Specialist (national, 3 person-months).

31. The specialist shall have a post-graduate degree in curriculum studies with a focus on TVET/adult education. She/he shall have at least 10 years of experience in competency-based curriculum (CBC) development and implementation in the TVET sector. The specialist will provide assistance post training for school faculty in implementing CBC development and review and evaluate the achievements of the CBC. The specialist will report to the CBC training specialists and provide inputs to improve training, assessment and implementation methods.

k. Nanning Health School Contents Specialists (national, 3x1 person-month)

i. Interpersonal Communication

32. The specialist will be a chief nurse with more than 10 years of experience, and familiar with interpersonal communication between nurses and patients in hospital, clinic and other health services settings. The consultant will work with Nanning Health School (NHS) faculty in the nursing major to develop the curriculum for a new course on interpersonal communication. The consultant will

- (i) identify curriculum content (including case studies, activities and assignments and competencies for interpersonal communication;
- (ii) assist NHS faculty to integrate content into new course; and
- (iii) assist the NHS faculty in developing an assessment tool for the new course.

ii. Nursing Occupational Risk Management

33. The specialist will be a chief nurse with more than 10 years of experience working in a hospital and familiar with occupational risks and management practices. The consultant will work with NHS faculty in the nursing major to develop the curriculum for a new course on occupational risk management. The consultant will

- (i) identify curriculum content (including case studies, activities and assignments) and competencies for occupational risk management;
- (ii) assist NHS faculty to integrate content into new course; and
- (iii) assist the NHS faculty in developing an assessment tool for the new course.

iii. Elderly Dental Care

34. The specialist will be a chief nurse with more than 10 years of experience working in an oral care division and familiar with elderly oral care. The consultant will work with NHS faculty in the nursing major to develop the curriculum for a new course on elderly oral care. The consultant will

- (i) identify curriculum content (including case studies, activities and assignments) and competencies for elderly oral care;
- (ii) assist NHS faculty to integrate content into new course; and
- (iii) assist the NHS faculty in developing an assessment tool for the new course.

I. Kindergarten Content Specialist for Nanning No. 4 Vocational and Technical School (national, 6 person-months).

35. The specialist will shall have a TVET related graduate degree and at least 10 years of relevant experience in curriculum development for kindergarten major. The consultant will work with NVTs kindergarten major faculty to develop the curriculum for five new courses to be added to the major. These include

- (i) integrating ethnic minority culture in kindergarten education;
- (ii) kindergarten student assessment methodologies;
- (iii) addressing special needs children in kindergarten;
- (iv) early childhood education for 0-3 years; and
- (v) creating safe and successful learning environments for kindergarten schools.

36. In each case the consultant will

- (i) identify curriculum content (including case studies, activities and assignments) and competencies for the new courses;
- (ii) assist the NVTs faculty to integrate content into new courses; and
- (iii) assist the NVTs faculty in developing assessment tools for the new courses.

m. Teacher-Learning Methods, Training, and Materials Development Specialists (international, 4 person-months, national, 6 person-months).

37. The Teaching-Learning Methods, Materials Development, and Training Specialists shall have a TVET related graduate in teaching-learning or other relevant degree, preferably a train-the-trainer qualification in, and at least 10 years of relevant experience in TVET teacher training. The specialist shall

- (i) identify training needs, demands and existing gaps for both pedagogy and andragogy, and associated teaching-learning materials using a range of media and technology;
- (ii) develop competency-based framework for assessment of the learner-centered methodology;
- (iii) develop training package of “student-centered teaching-learning pedagogy” for intensive training and in collaboration with the two schools, develop the core teacher training system;
- (iv) develop teaching-learning assessment tools;
- (v) develop student-centered methodology modules for the in-service educational training/continued professional development (CPD) program;
- (vi) integrate course content (preschool education/ elderly care nursing/ rural health nursing) with the learner-centered methodology skills;
- (vii) develop training package for external clients such as clinical supervisors and kindergarten directors who will supervise student practical activities in

- kindergarten and hospital;
- (viii) deliver intensive training in Student-Centered Methodology with a practical application of skills, knowledge and attitude for teachers at both target schools; and
- (ix) develop and establish a comprehensive CPD framework at institutional levels.

n. Elderly Care Curriculum Development and Training Specialist
(international, 3 person-months; national, 8 person-months)

38. The specialists shall have a degree in geriatric nursing and postgraduate degree in education/nurse education or similar qualification. She/he shall have a minimum of 10-years of demonstrated general experience in nursing curriculum development and design, and training methods for the nursing profession, preferably in developing countries. The specialist shall

- (i) conduct an occupational analysis workshop to determine the competencies needed to competently function as a health care provider for the elderly;
- (ii) in collaboration with the CBC development training specialist, conduct CBC development and implementation for the NHS;
- (iii) integrate PRC National standards in nursing and learner competencies into a coherent nurse education program with a specialty in elderly care;
- (iv) develop educational services and special courses for upgrading knowledge and skills of public and private employees in rural and urban health care facilities for elderly care;
- (v) develop “advanced module of elderly care” based on existed “basic module of elderly care”, and integrate the elderly care certificate program;
- (vi) develop “bridge correspondence courses” (including learning resource) for part time students working in nursing houses enabling transfer to second year of nursing program;
- (vii) assist the NHS administration and faculty in the engagement of and collaboration with the private sector in elderly care and government bodies in developing modules for continuing professional development and short term upgrading training;
- (viii) assist the NHS in developing strategies for linking curriculum and employment needs by promoting advisory committees representing rural and urban elderly care facilities;
- (ix) developing educational services and special courses for upgrading knowledge and skills of public and private employees in rural and urban health care facilities for elderly care;
- (x) assist faculty to develop and manage competency-based distance training and computer-based technologies sharing programs designed for individualized and media-reliant standards; and
- (xi) establish strategies to monitor and evaluate all curricula, through sample and tracer studies, and employer, student and instructor evaluations of the content of the curriculum and make ongoing revisions and improvements in all curriculums, to ensure sustainability.

o. Kindergarten Curriculum Development and Teacher Training Specialists (international, 2 person-months; national, 6 person-months)

39. The specialists shall have a postgraduate degree in education with specialization in preschool/kindergarten teaching and/or teacher training. She/he shall have at least 10 years relevant experience as kindergarten teacher trainer and/or kindergarten teaching preferably in a model or teacher training kindergarten. The consultants will help to

establish the kindergarten training base. The specialist shall

- (i) assist the kindergarten training base (KTB) to establish strategies for the development and implementation of an exemplary kindergarten training base;
- (ii) share international best practice on kindergarten curriculum and teaching methodologies;
- (iii) develop training materials and teaching aids;
- (iv) conduct action research workshops and assist teachers in developing practical action research projects relevant to KTB activities;
- (v) assist teaching staff to identify, test, and assess internationally acceptable kindergarten training methods;
- (vi) develop CPD modules for KTB teachers and students;
- (vii) identify dissemination and sustainability strategies for the KTB;
- (viii) assist NVTs in identifying and arranging best practice sites for field visits, potential partner institutions and applied research topics; and
- (ix) develop an assessment tool for the training base teachers and students.

p. Rural Doctors Training Base Curriculum Development and Training Specialist (international, 2 person-months; national, 6 person-months)

40. The specialists shall have a post-graduate degree in public health, community health or similar field and 10 years professional experience in community health and public health education and training, program development, and assessment of teaching and learning. The specialist should have extensive experience in working with rural and remote communities and health. The specialists will

- (i) identify training needs, demands and existing gaps for rural medicine students, rural medicine core teacher trainers, rural medicine teachers, township hospital doctors and village doctors;
- (ii) develop three curricula based on the competency framework and level of attainment (a) for training rural medicine teacher to become teacher trainer, (b) for rural medicine student practicum, and (c) for training rural health consulting firms to become student mentors, including specifying the competency, and level of attainment;
- (iii) develop and conduct capacity building program in public and community health for core teacher trainers;
- (iv) develop a scoring system based on the site assessment framework and apply it to assess the quality of rural healthcare facilities and services;
- (v) select at least two central township hospitals with good evaluation to be the pilot rural health training bases;
- (vi) perform comparative analysis of strength and weaknesses of practicums in pilot sites and non-pilot sites;
- (vii) identify strengths and weaknesses of organizational and institutional arrangements of the practicum to improve and strengthen the pilot for future scale-up;
- (viii) use findings from regular evaluations of the training processes, clinical processes and approaches adopted by the rural health training base(s) to make necessary changes to improve the functioning, operation and impact of rural health training base(s);
- (ix) develop and implement a mentoring plan and strategies for (a) the rural medicine core teacher trainers in providing continued support and training to rural medicine mentors prior to, during and after their students' practicum and (b) the rural health teacher trainers in managing students' practicum rotation arrangements;

- (x) provide support and facilitate student assessments and the teaching of public health competencies for the health students and nursing students; mentor; and
- (xi) prepare and disseminate good practice material(s) regarding the successes and lessons learned from establishing the pilot rural training bases.

4. Reporting and Timetable

41. The capacity building should ideally be programmed over a period of five years duration to last for the whole implementation period. However, it is anticipated that the most intensive period for capacity building would be during the first two years of project implementation.

42. The provider of the project management consulting services should be selected/engaged as soon as possible after loan effectiveness and should be required to provide the following reports:

- (i) An inception report (within one month of commencement).
- (ii) A detailed training plan (within three months of commencement).
- (iii) Half-yearly progress reports compatible with NMG's reporting obligations to ADB.
- (iv) Safeguards monitoring reports compatible with NMG's reporting obligations to ADB.
- (v) A completion report that is compatible with NMG's reporting obligation to ADB at the conclusion of project implementation (assuming physical works and equipment purchase are completed within 5 years as currently envisaged).
- (vi) TVET strengthening reports as required by the detailed terms of reference.

43. All these reports will be submitted in English and Chinese to Nanning project management office (NPMO) and Chinese copies provided to the Xiangsihu Development and Investment Company, NHS, and NVTs. Recommendations arising from the capacity that require any form of formal client action or approval (i.e. by NPMO, Xiangsihu Development and Investment Company, or a specific project TVET institution) are to be presented in report format with an appropriate level of justification to support the recommendations made. These reports can be provided in Chinese only unless NPMO specifically requests an English version for the purpose of dialogue with ADB.

5. Facilities to be provided as part of the capacity building

44. The contract for providing the capacity building will include provisions for the consultant to provide the following items, and this requirement is to be made clear in the request for proposals:

- (i) All staff and personnel costs, including international, national and local travel, accommodation and subsistence.
- (ii) In-city travel costs for visits to TVET institutions.
- (iii) Office rental (including telephone and internet access).
- (iv) Office equipment (including basic office furniture), computer equipment and related hardware (printers etc.) and software necessary for the effective conduct of the consultancy, including an allowance for consumables.
- (v) Arrangements and financial provision for in country training programs to be reimbursed at cost.
- (vi) Provision of secretarial support and an interpreter (where necessary).
- (vii) Costs of all reports and document preparation and printing.

6. Other Requirements Expected of the Consulting Firm

45. The consulting firm should be experienced in implementing similar capacity building programs in the People's Republic of China. Prospective consulting firms, in tendering for the capacity building work should be encouraged to make any comments on and suggestions for improvement to the proposed program in submitting their technical proposal. The financial implications, if any, of these suggestions should be clearly indicated in the financial proposal. These suggestions will then be dealt with at the negotiation stage of the procurement of the consultant.

46. In their technical proposals, the prospective consulting firms should be asked to demonstrate a clear understanding of the client's requirements and indicate inter-relationships between the different tasks within the assignment. An indicative program of work and for the deployment of the various specialists should be provided.

47. The technical proposals should include a methodology and proposed assessment criteria under which the client can measure the performance in the conduct of the capacity building work. This should include an assessment of work quality as well as timeliness of output. In submitting such assessment criteria the consulting firms should be required to confirm they accept their use in measuring their own performance.

7. Facilities to be Provided by the Client

48. The PMO as client will provide, or make available to the consultant, the following:
- (i) a suitable counterpart staff to work alongside the consulting team;
 - (ii) free Internet access;
 - (iii) a DDD telephone line (usage to be charge to the consultant);
 - (iv) meeting rooms and training facilities necessary for the conduct of the services (see note); and
 - (v) assistance in the arrangement of work visas (where necessary).

APPENDIX 8: DRAFT TRAINING PLAN

Training programs on various aspects of TVET capacity building and project management will be delivered by the initial start-up consultant and/or the project management consulting service during the course of project implementation. Involvement of partners from industry and other “best practice” education partners will also be encouraged. Where appropriate, training is to be extended to include representatives of other TVET institutions in Nanning and the GZAR.

Training program	Scope of Training	Trainer(s)	Trainee(s)
Competency Based Curricula (CBC)			
	<ul style="list-style-type: none"> -Basic concepts and benefits of CBC - Development of CBC - Setting relevant standards - CBC assessment 	<p>CBC consultants</p> <p>Consulting team leader</p>	<p>NHS & NVTS managers and staff</p> <p>NHB, NEB and Industry Group members</p> <p>Key teachers (extra focus)</p>
Teacher Training			
	<ul style="list-style-type: none"> -Materials development skills -creation of learner centered and task-based materials - design development and implementation of a comprehensive CPD framework. - conducting in service training and development of CPD modules - use of new CBC modules - monitoring and evaluating all training activities (to include a Teacher MIS and conducting tracer studies). 	<p>Teacher training consultant</p> <p>Consulting team leader</p>	<p>Key teachers (main focus)</p> <p>Other teachers and school management, NEB and NHB.</p> <p>External clients (basic concepts only)</p>
Elderly Care			
	<p>Development of specific tools, check lists, clinical templates, and item banks.</p> <p>Validity and reliability of tests.</p> <p>Student follow-up systems and their uses</p> <p>Developing non-NHS clinical supervisors</p>	<p>Elderly care specialist consultants</p>	<p>Key teachers in NHS</p> <p>NHS Management</p> <p>Industry representatives</p>
Human Resources Development			
	<p>Planning, coordination and management of human resource development skills</p> <p>Evidence-based practice in teaching</p> <p>Action research skills</p>	<p>Consulting team leader, DTL (TVET)</p> <p>Industry and Education Partners</p>	<p>Leaders and key teachers in NHS and NVT</p> <p>NEB and NHB officials</p> <p>Providers of industry placements</p>

Training program	Scope of Training	Trainer(s)	Trainee(s)
	<p>Development of graduate tracer study research skills</p> <p>Planning, management, monitoring and evaluation of school - enterprise partnership programs.</p> <p>Networking Study</p> <p>Visits to PRC good practice preschool teacher training, and nursing, rural health care and elderly care institutions</p> <p>International good practice study tours for leadership and staff teams</p> <p>Secondments to national best practice institutions</p> <p>Mentoring skills</p>		
Development of Rural Health Model Training Base (RHTB)			
	<p>Health education, health promotion, community participation and mobilization.</p> <p>Design, implementation and assessment of work experience placements</p> <p>Mentoring skills</p>	<p>RHTB consultants</p> <p>Consulting team leader and DTL (TVET)</p> <p>Elderly care consultants</p> <p>Best practice partners</p>	<p>NHS leaders and key teachers</p> <p>NHB officials, Non- NHS clinical supervisors</p>
Kindergarten Model Training Base (KTB)			
	<p>Creation and use of innovative learning environments</p> <p>Design and use of new curricula such as the project approach, Reggio Emilia, and Montessori</p> <p>Design, implementation and assessment of work experience placements</p> <p>Mentoring skills</p>	<p>KTB consultants</p> <p>Consulting team leader and DTL (TVET)</p> <p>Best practice partners</p>	<p>NVTS leaders and key teachers</p> <p>NEB officials</p>
Project Management			
<p>ADB's disbursement procedure and financial management</p>	<p>ADB loan disbursement procedure</p> <p>Project roles and responsibilities</p> <p>Monitoring of fund flow and utilization of loan proceeds</p>	<p>Start-up consultant</p> <p>Financial management consultant</p>	<p>NFB, PMO, and implementing agency's financial staff</p>

Training program	Scope of Training	Trainer(s)	Trainee(s)
	Avoiding delays in disbursement		
Financial management	Financial management of the project Project accounting and financial record keeping Internal controls and audit.	Financial management consultant	NFB, PMO and implementing agency's financial staff
Procurement and contract management	ADB's procurement process Preparation of procurement plans Use of advance procurement action Bidding document preparation ADB's guideline for bid evaluation Risk of misprocurement and mitigation measures Handling variation orders and contract claims Site health and safety	Start-up consultant DTL (project management)	PMO and XIDC NHS & NVTS (part only) Design institutes (part only) Contractors and construction supervision companies (part only)
Corruption risks in the project implementation and anti-corruption measures	Definition and type of corruption Risk of corruption under the project implementation Mitigation measures Institutional framework and anti-corruption mechanisms Case studies and international best practices	Financial management consultant	NFB, PMO, and implementing agencies

Training program	Scope of Training	Trainer(s)	Trainee(s)
Social Safeguards	ADB safeguards policy, Safeguards issues relevant to the project Social inclusion Cultural sensitivity Gender awareness Specific social and gender issues relevant to the project Monitoring and reporting requirements	Social and Gender consultant	PMO and implementing agencies Contractors (part only)
Environmental management and monitoring	ADB's SPS policy in relation to Environmental protection Legal requirements Implementation of the EMP Monitoring and reporting mechanisms and information handling Grievance redress mechanism Green campuses Environmental management systems	Environmental Consultants	PMO, NHS, NVTS, NEB, XIDC Contractors (part only) Environmental monitoring institute (part only)
8. Project monitoring and evaluation	Basic concepts in performance management Results based techniques PPMS Reporting requirements TVET Impact assessment methodologies Refresher modules	M&E Consultant Consulting team leader and DTLs	PMO and implementing agencies NEB and NHB contractors (monitoring part only)

DTL = deputy team leader, M&E = monitoring and evaluation, NEB = Nanning Education Bureau, NHB = Nanning Health Bureau, NVTS = Nanning No. 4 Vocational and Technical School, PMO = project management office, PPMS = project performance monitoring system, TVET = technical and vocational education and training, XIDC = Xiangsihu Development and Investment Company.

Notes:

1. External clients include clinical supervisors, kindergarten directors, and potential mentors at kindergarten schools, clinics, and hospitals.
2. Non-NHS clinical supervisors include mentors, preceptors, etc. used for practical training placements.

APPENDIX 9: PROCUREMENT CAPACITY ASSESSMENT REPORT

I. BACKGROUND

A. The Project

1. The project will help improve the capacity and effectiveness of social services focused technical and vocational education and training (TVET) in Nanning. It will support improvement of Nanning Health School (NHS) and Nanning No. 4 Vocational School (N4VS), thereby, creating a cadre of qualified kindergarten teachers and nurses to address current skilled worker shortages and inadequate extension of social services. The project is the second⁴³ Asian Development Bank (ADB)-financed TVET investment project in the People's Republic of China (PRC), and will play a demonstration role for the sector and provinces to provide quality public social services.

2. The project has four outputs. **Output 1: TVET capacity strengthened in project schools** will build institutional capacity to optimize the TVET system by focusing on (i) curriculum development, (ii) teacher training, (iii) building regional cooperation and strategic TVET and industry partnerships, (iv) developing elderly care curriculum, and (v) developing education leadership. This component is intended to improve the capacity, relevance, and effectiveness of teaching and learning. **Output 2: Pilot programs implemented in project schools** will assist NVTs in establishing a model kindergarten, including state-of-the-art kindergarten teaching methods based on "best international and national practices and experiences", including mentoring, monitoring, provision of educational and pastoral care of children, assessment, leadership, and management. The project will likewise support the establishment of rural training base(s) through: (i) selection of sites based on the criteria determined in consultation with Nanning Health Bureau and NHS; (ii) identification of training needs and demands and existing gaps; (iii) strengthening the existing curriculum to integrate theory-praxis nexus and syllabus; (iv) development of teaching-learning methods and materials; and (v) development of management and entrepreneurial capacity through in-service, pre-service and CPD. **Output 3: Buildings, campus facilities, and equipment upgraded** will involve construction of new buildings and auxiliary facilities for the upgraded NHS and N4VS as well as support the acquisition and upgrading of teaching, learning, special purpose equipment, library furniture/equipment, physical education equipment, and laboratory equipment to support student enrolment, teaching, and experimental activities. **Output 4: Project management support implemented** will involve the administration, supervision, and management of day-to-day activities in project implementation with the Nanning Municipal Government (NMG) as the executing agency through a project management office.

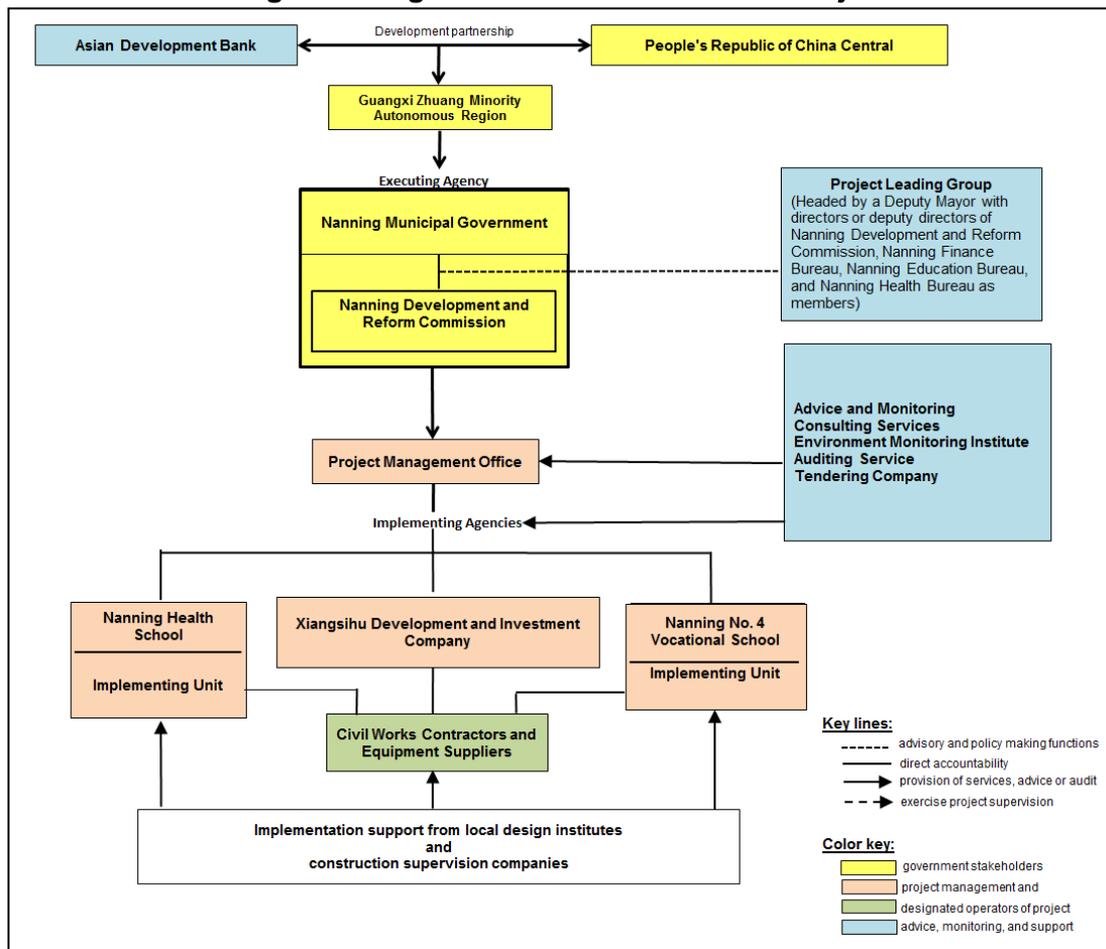
B. Project Organization Structure

3. The Executive Agency (EA) for the project is Nanning Municipal Government (NMG). NMG has established a leading group headed by a deputy mayor to lead and coordinate the preparation and implementation of the project. The leading group includes the directors or deputy directors of NMG agencies including Development and Reform Commission, Financial Bureau, Education Bureau and Health Bureau. Under Nanning Development and Reform Commission (NNDRC), a project management office (PMO) has been established to conduct daily operation for the project preparation and implementation. The EA has designated a government-owned company, the Xiangsihu

⁴³ The first project is TA 7978-PRC: Technical and Vocational Education and Training Demonstration Project (Hunan), approved in December 2011.

Investment and Development Company (XIDC),⁴⁴ which has project investment, development, and construction management experience, to assist NSH and N4VS, the two project implementing units (PIUs), in carrying out procurement, contract management, construction management, and equipment purchase and installation. XIDC also has experience in management and implementation of ADB- and World Bank-funded projects, having served as IA of the two projects' infrastructure components.⁴⁵ In addition a professional procurement agent will be appointed to advise and support the project procurement activity. Under Ministry of Finance rules this appointment must be made before ADB loan negotiations. The organization structure of the project is shown in Figure 1.

Figure 1: Organization Structure of the Project



⁴⁴ XIDC is a stated-owned enterprise in Nanning which is administrated by the Xiangsihu Development Zone Committee. Its four major functions are: (i) municipal infrastructure development, i.e., design and construction of roads and bridges, environmental infrastructure, and landscaping, etc., within Xiangsihu Zone; (ii) project management service, especially project management contracting for public sector engineering projects, on behalf of the project owner, including proposal and permitting assistance, procurement management, and construction supervision; (iii) construction and operation and management of the Xiangsihu Wetland Park and urban waterways; and (iv) real estate development within Xiangsihu Wetland Park area.

⁴⁵ These were (i) ADB-funded Nanning Urban Environment Upgrading Project, Kelijiang River Eco-environmental Upgrading Subproject in 2007-2011; and (ii) WB-funded Nanning Urban Environment Project, Fenghungjiang River Eco-environmental Upgrading Subproject in 2009-ongoing.

II. CONDUCT OF THE PROCUREMENT CAPACITY ASSESSMENT

4. ADB requires an assessment of the general procurement environment and the capacity of the entity (XIDC, in this case) responsible for the procurement of goods, works, and consulting services as part of the project preparation process.⁴⁶ The procurement capacity assessment (PCA) will serve as the basis for providing recommendations on actions required to overcome weakness or constraints in the entity's procurement capacity and the manner by which it conducts procurement of goods, works, and services. Specifically, the assessment exercise seeks to: (i) evaluate the adequacy of XIDC's existing procurement processes and determine if these are consistent with ADB's procurement guidelines; (ii) identify the need for improving project-specific procurement arrangements during project preparation/implementation and recommend training for developing staff competence and effectiveness in order to minimize implementation risks; and (iii) define the appropriate level of review, either prior or post by ADB.

5. The conduct of the PCA required the following: (i) translation of the PCA questionnaire (PCAQ) from English to Chinese; (ii) conduct of the PCA survey by sending the questionnaire to concerned EA and IA staff, through the Project Management Office (PMO); (iii) translation of responses to the questionnaire from Chinese to English; (iv) conduct of meetings with concerned EA and IA staff to clarify responses to PCAQ; and (v) preparation and submission of PCA report.⁴⁷

6. The assessment contains three components: (i) assessment of the general procurement environment; (ii) report on the assessment of the procurement capacity of XIDC; and (iii) the completed procurement assessment questionnaire by XIDC.

A. Assessment of General Procurement Environment

7. The assessment of the general procurement environment for PRC is an exercise that is undertaken by ADB and updated normally on an annual basis. The ADB assessment is shown in Table 1,⁴⁸ the national procurement environment for the People's Republic of China (PRC).

8. This assessment is to ascertain the level of risks (low, average, or high) associated with the general procurement process at the national level. The main areas with high risks that have been identified were as follows: (i) the existing procurement law makes no differentiation between procurement processes for consulting services and goods/works; (ii) there is lack of a procurement manual specifying how the legal requirements are translated into detail work procedures, and (iii) there is lack of procurement accreditation or professionalization program. However, the requirement to adhere to the procedures stated in ADB procurement guidelines will provide the basis for mitigating these risks to acceptable levels.

⁴⁶ Discussions with XIDC staff and staff of Nanning Health School and Nanning No. 4 Vocational and Technical School indicated that XIDC will be the main entity to be designated to undertake the whole process of procurement of goods and services during project implementation. The two schools will only participate in parts of procurement activities such as technical specification requirements and bidding evaluation. This was confirmed by the responses of the two schools to the PCA questionnaires which are available upon request.

⁴⁷ The list of the names of persons met during the conduct of the PCA is presented in Annex 1 while the completed PCA questionnaire is presented in Annex 2.

⁴⁸ The results presented in Table 1 were obtained from *Report and Recommendation to the President, Chongqing Urban-Rural Infrastructure Development Demonstration Project (RRP PRC 42012-01)*. ADB, Manila.

Table 1: National Procurement Environment

General Procurement Assessment	Risk Assessed As		
	Low	Average	High
<p>1. Is there a procurement law? <i>The answer to this question is a simple <u>yes</u> or <u>no</u>, i.e., is there a single law governing procurement which is representative of best practice or is procurement governed through various laws, decrees, etc.? Assess this as either "High" or "Low"</i></p>	Yes X		
<p>2. Are the laws and regulations clear and concise? <i>If there is no single law, check "High", and similarly if the law is complex and difficult to follow, check "Average". If the law is easy to follow, check "Low".</i></p>	X		
<p>3. What does the law (or regulations applicable to procurement) cover? <i>If there is a single law, "Low" will apply when the law covers drafting and use of standard bidding documents evaluation, contracting, through the management of contracts including payment, warranty, and defects liability periods, The less the procurement process is covered, the higher the risk. If there is no single law, check "High".</i></p>		X	
<p>4. Does the law cover the procurement of consulting services? <i>If consulting services are not covered or there is no law, the risk is high. If they are covered, the risk is low.</i></p>			X
<p>5. Does the law differentiate between processes for consulting services and goods/works? <i>If there is no law, or it applies the same processes to consulting services as for goods and works, check "High". If there is some differentiation but the processes are similar, check "Average". If consulting services are dealt with separately, check "Low".</i></p>			X
<p>6. Does the law require advertisement of all procurement opportunities? <i>"Low" risk will be represented through advertisement of all procurement above \$25,000, "Average" above all above \$100,000, "High" by no advertisement or advertisement at a higher threshold than \$100,000.</i></p>	Requirements vary among different sectors and provinces.		
<p>7. Are contract awards advertised? <i>The same thresholds as stated at question 6 should be applied.</i></p>			
<p>8. Are there restrictions on goods and services on the basis of origin? <i>If procurement is limited to solely national origin check "High", if there are restrictions or a national preference scheme, check "Average". If there is none, check "Low".</i></p>	X		
<p>9. Does the law or relevant legislations and regulations provide acceptable provision for the participation of state-owned enterprises? <i>Check "Low" only if the SOE is legally and financially autonomous and not a dependent agency of the purchaser. Otherwise, check "High".</i></p>			X
<p>10. Are there restrictions on the nationality of bidders and consulting firms invited? <i>If procurement is limited to solely national firms and individuals, check "High". If there are restrictions or a national preference scheme, check "Average". If there are no restrictions, check "Low".</i></p>	X		
<p>11. Are foreign bidders and consultants forced to offer through or with local partners? <i>If yes, check "High". If this is so in certain circumstances, check "Average". If there are no restrictions, check "Low".</i></p>		X	
<p>12. Is there a domestic preference scheme? <i>If yes, check "High". If this is so in limited circumstances, check "Average". If there is no preference scheme, check "Low".</i></p>	X		
<p>13. Is there a national standard mandated for use for quality control purposes?</p>			

General Procurement Assessment	Risk Assessed As		
	Low	Average	High
<i>If there is direct, accessible international equivalents "Low"; if without international equivalents check "High"</i>			X
14. Are any agencies exempt from the law? <i>Such as the security forces. If yes, check "High". Also, check "High" of any types of goods are exempt from parts of the law such as medicines, text books or any other commodity.</i>	For government procurement, yes. For general procurement, no.		
15. Is the default method for procurement open competition? <i>The answer should be either Yes or No. If answer is Yes, check "Low"; if answer is No, check "High".</i>	Yes X		
16. Is open procurement easily avoided? <i>If the procurement law allows avoidance of open procurement above the national threshold on the basis of circumstances that are not in response to natural disasters, i.e., simple urgency, check "High". If open procurement can be avoided for complex contracts, check "Low". If open procurement can be avoided by senior management decision, check "Average". If avoidance requires approval of an oversight agency, check "Low".</i>	X		
17. Do the rules and regulations require pre-qualification? <i>If this applies for only for complex contracts check "Low"; if this is applied for no contracts, check "Average"; If for all contracts, check "High".</i>		X	
18. Do the rules and regulations require registration? <i>If yes, check "Low"; if only for special goods such as medicines, check "Average"; if no registration, check "High".</i>	Require company registered.		
19. Are there systematic procurement process audits? <i>If yes, check "Low"; if only requires financial audits, check "Average"; if none, check "High".</i>			X
20. Is there a national procurement manual or guide? <i>If a single procurement manual or guide, check "Low"; if manual exists but out of date or not widely used, check "Average"; if there is none, check "High".</i>			X
21. Do the laws and regulations mandate the use of standard documents? <i>If the standard documents are for goods, works, and consultants services, check "Low"; if standard documents are only for any two, check "Average"; and if standard documents are used for only one or none, Check "High".</i>	Depends on sectors, some line ministries have standard documents.		
22. Have these standard bidding documents been approved for use in ADB projects? <i>If yes, check "Low"; if for some but not all check "Average"; and if no, check "High".</i>	X		
23. Do the regulations require the collection of nationwide statistics on procurement? <i>If yes and statistics are collected, check "Low"; if yes but data are not collected, check "Average"; and if no, check "High".</i>			X
24. Is the consolidated historical procurement data available to the public? <i>If yes, check "Low"; if too much or too little, check "Average"; and if no, check "High".</i>			X
25. Do the procurement laws and regulations contain provisions for dealing with misconduct? <i>Such as fraud and corrupt practices – the procurement law or regulations may include or cross refer to anti-corruption legislation. If answer is yes, check "Low"; if answer is no, check "High".</i>	X		
26. Is fraud and corruption in procurement regarded as a criminal act? <i>The penalties should include penal servitude (prison). If yes, check "Low"; if no, check "High".</i>	X		
27. Have there been prosecutions for fraud and corruption? <i>If there have been successful prosecutions for fraud and corruption, check "Low"; if prosecutions seem to focus solely on low grade junior staff. Check "Average"; and if none, check "High".</i>	X		
28. Is there an alternative disputes resolution process			

General Procurement Assessment	Risk Assessed As		
	Low	Average	High
<p>independent of government and courts? <i>If there is an arbitration law and independent process, check "Low"; if the standard contracts use ICC or similar dispute resolution, check "Average"; and if arbitration is through courts or can be overturned by courts, check "High".</i></p>			X
<p>29. Does the law allow for sovereign immunity to the executing agency for claims against it? <i>If plaintiffs can sue the government for contractual non-performance, check "Low"; if they cannot sue, check "High".</i></p>	X		
<p>30. Do the regulations allow for black listing (disbarment) of firms and individuals? <i>If there is no black listing process but the process is transparent and equitable and undertaken by an independent oversight agency, check "Low". If there is a process and it is administered by a single line agency such as finance, check "Average". If it is administered by the executing agency, check "High".</i></p>	X		
<p>31. Which body oversees procurement? <i>If an independent body reports to the elected body, check "Low". If a single body reporting to the cabinet, check "Average". If no body or reports to a single state agency such as Prime Minister or Finance Minister, check "High".</i></p>	By government at different levels.		
<p>32. What powers does the oversight body have? <i>If the body can impose administrative sanctions on an executing agency and its staff and overturn contract awards including ministerial decisions, check "Low". If the body only can impose sanctions through the head of the executing agency, check "Average". If the body can only recommend action, check "High".</i></p>		X	
<p>33. Is there a nationwide procurement training plan? <i>If procurement training is assessed and planned for nationwide, check "Low". If this is delegated to line agencies, check "Average". If there is no strategy or plan, check "High".</i></p>		X	
<p>34. Is there a procurement accreditation or professionalization program? <i>If there is an externally recognized program, check "Low". If there is only a government sponsored program, check "Average". If there is none, check "High".</i></p>			X
<p>35. Are major projects identified within an agency's appropriation or budget? <i>If yes, check "Low". If a system is in place for the ring-fencing project funds, check "Average". If neither, check "High".</i></p>	No simple answer for this question.		
<p>36. Is the procurement cycle tied to an annual budgeting cycle? i.e., can procurement activity only commence once a budget is approved? <i>No medium expenditure framework is in place, check "Low". Activity may start-up but excluding contract award, check "Average". Yes, it is tied to annual budget, check "High".</i></p>	Budget needs to be approved, but may not be always on annual basis.		
<p>37. Once an appropriation or budget is approved, will funds be placed with the executing agency or can the executing agency draw them down at will? <i>If answer is yes, check "Low". If answer is no and additional controls are imposed, check "High".</i></p>			X
<p>38. Can an executing agency draw directly from a loan or imprest account or will it spend budgeted funds with the borrower claiming reimbursement? <i>If executing agency draws directly, check "Low". If executing agency draws from budgeted funds, check "High".</i></p>	Both		
<p>39. When an executing agency is implementing a project using funds from the national budget, had a delay in funding significantly delayed procurement? <i>If the answer is no or not applicable, check "Low". If the answer is yes, check "High".</i></p>	No simple answer for this question.		

B. Assessment of XIDC's Procurement Capacity

9. The PCA questionnaire was issued to XIDC, through the Nanning PMO. The questionnaire is divided into five sub-sections:

- (i) General resource – on staffing and equipment;
- (ii) Procurement processes for goods and works – on preparation of bid documents and tendering process;
- (iii) Procurement processes for consulting services – on consultants selection procedure;
- (iv) Process oversight and control – on check-and-balance mechanism and contract administration; and
- (v) Records keeping

10. The results of the assessment are presented in the following:

1. Assessment of General Resources of XIDC

Assessment: It is noted that XIDC has a number of qualified officers and staff with experience in procurement and has the capacity to carry out the procurement of consultant services, goods/equipment, and civil works. XIDC also has adequate facilities such as computers, internet connections, photocopy facilities, printers, etc. to undertake the expected procurement. There is a need, however, for close collaboration among implementing parties (i.e., XIDC, EA/PMO, and loan implementation consultant) concerned through the setting up of a coordinating system and effective reporting procedures during project implementation. The loan implementation consultant to be engaged by the PMO should provide an additional resource in assisting XIDC and EA/PMO in complying with the loan agreement terms with regard to procurement and other aspects.

Although XIDC has experience in implementing an ADB-funded project (Kelijiang River Eco-environmental Upgrading Project in 2007-2011) and a WB-funded project (Fenghungjiang River Eco-environmental Upgrading Project in 2009-ongoing), a short training course on procurement management will be needed to refresh XIDC's project procurement staff and to improve their familiarity with ADB procurement guidelines, process, and reporting requirements. The staff designated to carryout procurement during loan project implementation should have credentials that meet national professional accreditation requirements for foreign loan implementation.

Rating: Satisfactory

2. Assessment of Procurement Resources for Goods and Works of XIDC

Assessment: Responses to the questionnaire show a systematic process is in place for preparing bid documents, bids evaluation and contract award. It is understood XIDC will be supported by a design institute, through public tendering, in the preparation of the detail design and specifications, and will engage the services of a tendering agency experienced in foreign funded projects to prepare the bidding documents. The "Bid Evaluation Committee" shall be composed of members with qualifications that satisfy the requirements of the Nanning government, together with a representative of the employer for purchased goods/services. The members shall be randomly selected experts external to the organization and will be tasked to decide on the successful bidder. The procedure is in principle satisfactory so long as the additional procedures specified in the ADB procurement guidelines are also complied with.

The capacity constraint is in the quality control of the output of the design institutes and

tendering agencies if these are not closely and well supervised, monitored, and managed. The design institute should be selected under quality guidelines prescribed by the EA/PMO for ease of management control and consistency in work quality.

During project implementation, the loan implementation consultant should provide on-the-job training on procurement, review of the design output of the design institute, and review the bid documents to ensure compliance with ADB requirements as well as address ADB's comments on the tendering process.

Rating: Satisfactory

3. Assessment of Procurement Processes for Consulting Services

Assessment: EA/PMO and XIDC have experience in the procurement of consulting services in accordance with ADB- and World Bank-QCBS method of selection. The fielding of the loan implementation consultant, composed of international and national specialists, will provide guidance and supervision as well as assistance to XIDC and EA/PMO in the hiring of consulting services using the QCBS method. The PPTA Consultant Team has already identified the broad scope of services required from the loan implementation consultant. With this information, the EA/PMO should be able to proceed with the formulation of the detailed terms of reference (TOR) and procedures for engaging the loan implementation consultant once the loan is approved.

Rating: Satisfactory

4. Assessment of Process Control and Oversight of XIDC

Assessment: From responses to the questionnaire, it appears that satisfactory controls are in place as follows: (i) there is established standard of ethics to which those involved in procurement are required to commit to it; (ii) those involved in procurement are required to declare any potential conflict of interest and, if there is, are required to remove themselves from the procurement process; (iii) a separate agency, the Nanning DRC, is involved in the approval of bid documents, tender recommendations etc.; (iv) contractual performance are monitored and reported upon; (v) procurement decisions and disputes are supported by written narratives such as minutes of evaluation, minutes of negotiation, notices of default/withheld payment; and (vi) a non-judicial mechanism for dealing with complaints is established.

The external controls exercised by ADB through its 'Prior Review' or 'Post Review', as appropriate, will be additional measures that serve to ensure fairness and openness in procurement and compliance with ADB's procurement principles.

Rating: Satisfactory

5. Assessment of Record Keeping of XIDC

Assessment: From responses received, it appears that a reasonable record system is in place for safekeeping of the original contracts, copies of bids and bid evaluation, and contract administration documents.

Rating: Satisfactory

III. GENERAL FINDINGS AND RECOMMENDATIONS

A. General findings

11. The XIDC is responsible for the procurement of consulting services, under the leadership of PMO, and oversight of all procurement and contract management under the project. XIDC will carry out the actual procurement and contract management activities,

and these activities include managing the preparation of bid documents by the tendering agencies and the design institute, participating in bid evaluation, signing of contract and subsequent contract administration, and record keeping.

12. The general findings of the PCA are as follows:

- (i) XIDC has a number of qualified officers and staff with experience in procurement of consultant services, goods/equipment, and civil works. Some of the staff have qualification certificates for meeting national professional requirements for procurement. XIDC also has adequate support facilities such as computers, internet connections, photocopy facilities, printers, etc. to undertake the expected procurement. A coordinating system, however, needs to be set-up to provide a basis for close collaboration and effective reporting procedures among XIDC, EA/PMO, and implementation consultant during project implementation. The loan implementation consultant to be engaged by the PMO can provide assistance to XIDC and EA/PMO in coordination in order to facilitate compliance with loan agreement terms concerning procurement and other aspects. Moreover, although XIDC has experience in implementing ADB- and WB-funded projects, a short training course on procurement management will be needed to refresh XIDC's project procurement staff and to improve their familiarity with ADB financial guidelines, process, and reporting requirements. As much as possible, designated staff to carryout procurement for the project should meet national professional accreditation requirements for procurement.
- (ii) XIDC has an established systematic process for preparing bid documents, bids evaluation and contract award. The XIDC will be supported by a design institute in the preparation of the detailed design and specifications, and will engage the services of a tendering agency, with experience in foreign funded projects, to prepare the bidding documents. A bid evaluation committee will be established consisting of members with qualifications that satisfy the requirements of the Nanning government. The committee shall be composed of randomly selected external experts who are external to the organization. The procedure is, in principle, satisfactory so long as the additional procedures specified in the ADB procurement guidelines are also complied with.
- (iii) There is a need to ensure the quality control of the output of the design institute and tendering agencies through close supervision, monitoring, and management. The XIDC staff from its Projects Division should also provide guidance and supervision to the design institute and tendering agencies on project-related outputs. The design institute should also be selected under quality guidelines prescribed by the EA/PMO for ease of management control and consistency in work quality. The work of the design institute and tendering agencies should be coordinated and supervised by an XIDC staff selected/engaged as Project Manager, especially during the bidding of the retroactive contracts. The loan implementation consultant should provide support in the supervision, monitoring, and quality control of the output of the design institutes during project implementation. The consultant should also provide on-the-job training on procurement, review of the design output of the design institute, and review of the bid documents to ensure compliance with ADB requirements as well as address ADB's comments on the tendering process.

- (iv) Although XIDC has experience and knowledge in the procurement of consulting services in accordance with quality and cost based selection (QCBS) method of ADB and World Bank, it will require guidance and assistance from a procurement specialist, with extensive knowledge and experience in carrying out procurement of consultant services following ADB procurement guidelines as well as in the application of the QCBS method. This procurement specialist should be hired at least 6 months prior to commencement of project implementation.
- (v) XIDC has established satisfactory controls, including: (i) a standard of ethics; (ii) requirement among those involved in procurement to declare any potential conflict of interest and to remove themselves from the procurement process, if there is; (iii) involvement of a separate agency, the Nanning DRC, in the approval of bid documents, tender recommendations etc.; (iv) monitoring and reporting of contractual performance; (v) proper documentation of procurement decisions and disputes; and (vi) a non-judicial mechanism for dealing with complaints. The external controls exercised by ADB through its 'Prior Review' or 'Post Review', as appropriate, will be additional measures that serve to ensure fairness and openness in procurement and compliance with ADB's procurement principles.
- (vi) There is a need to ensure the quality control of the outputs of the local construction supervision agencies through close supervision, monitoring, and management. XIDC has established satisfactory controls for contract implementation during construction period. This will be implemented via the Engineering Division and Internal Audit Division. Currently the nominated XIDC staff to serve as Project Manager for the project is from the Projects Division, whose responsibility is limited to planning and feasibility study preparation, and preparation of pre-contract documents. However, the project management team will also include key staff from the Engineering Division and Internal Audit Division.
- (vii) A reasonable record system is in place for safekeeping of the original contracts, copies of bids and bid evaluation, and contract administration documents.

13. The potential risks and other constraints are:

- (i) Although XIDC has a procurement process manual for goods and services, there is a need to determine whether the staff involved in the process have a clear understanding of the process and reporting requirements. Lack of an understanding will make it difficult to ensure all work performed by XIDC are consistent and are in the standard of format and quality acceptable to ADB. This, in turn, makes supervision and coordination extremely difficult. The adoption of ADB procurement guidelines which provide the standard detailed procedures will therefore mitigate these risks.
- (ii) Moreover, inadequate familiarity of XIDC staff with ADB procurement procedures can result in inefficient management of the various steps in the entire procurement process which, in turn, may result in delay of project implementation. Failure to adopt and conduct the necessary procedures under advance contracting will defeat the purpose of fast-tracking the implementation of project sub-components. In order to avoid these problems, on-the-job training on procurement must be provided to XIDC

staff who will be directly involved in project implementation. Assistance in the review of bid documents, to ensure compliance with ADB requirements (and address ADB's comments) on the tendering process, will also be needed. For this purpose, a national procurement specialist should be hired at least 6 months prior to commencement of project implementation in order to strengthen the capacity of XIDC staff on procurement procedures in accordance with ADB procurement guidelines.

- (iii) Lack of a coordinating system for close collaboration and effective reporting procedures among XIDC, EA/PMO, the end-users (i.e., the two schools), and loan implementation consultant during project implementation may also result in implementation delays. The loan implementation consultant can provide assistance to XIDC, executing agency and/or PMO, and end-users in complying with the loan agreement terms concerning procurement and other aspects.

B. Recommendations

14. The following are the recommendations:

- (i) XIDC should form an ADB project management team which will be staffed with personnel experienced in procurement (and other necessary disciplines) and having credentials that meet national professional accreditation requirements for foreign loan implementation, 6 months prior to the commencement of the project. The Engineering Division should be involved in the project management team as early as possible.
- (ii) The terms of reference of the loan implementation consultant to be engaged by the EA/PMO should include assistance to XIDC for (a) building procurement capacity, (b) providing on-the-job training to XIDC and EA/PMO staff involved in procurement on ADB requirements and processes, and (c) providing technical assistance in terms of review of detail design and bid documents, review of bid evaluation report, and addressing of ADB's comments on relevant documents.
- (iii) One national procurement specialist should be engaged prior to recruitment of the loan implementation consultant mentioned above in order to assist XIDC and EA/PMO in the early start-up of the project and to provide advice and assistance in urgent procurement activities such as those necessary for retro-actively financed works and advance contracting.
- (iv) There is a need for "external monitoring" of compliance with the spirit of professionalism, openness, and fairness in procurement in accordance with ADB's procurement guidelines. This will be in the form of 'Prior Review' by ADB in accordance with the agreed Procurement Plan, i.e. prior review be applied for all ICB contracts, the first national competitive bid (NCB) contract for civil works, and the first NCB contract for goods. P post review will apply for other procurement modes.
- (v) On-going training on procurement will be necessary to reinforce understanding and compliance with ADB's procurement guidelines. This will be a mix of on-the-job training and workshops at particular milestones of the project implementation, to be provided by the national procurement specialist, as well as by ADB procurement specialists as required.

Annex 1

Persons Met

Name	Department	Title
7 March 2013 9:30-14:00		
Yang Xiaoling	No. 4 Vocational School	Principal
Chen Jianzi		Vice-Chancellor
Zhong Yongqiang		Project Manager
Li Ding		Deputy Head Financial Unit
Bi Xiansheng		Deputy Head Logistic Unit
13 March 2013 14:30-15:20		
Li Dong	Finance Bureau	Deputy Chief of International Finance
Yao Hong		Chief of International Finance Section
Xi Shu		Officer
Song Mingzhi		Officer
Yang Na/Liao Liehong		Staff
13 March 2013 16:00-17:00		
Zhou Yin	Education Bureau	Chief of Finance Division
Zhang Shangyin		Head Finance Division
Yang Yi		Deputy head
Mo Rao		Staff - Student Subsidy/Aid
Liao JiaJiang		Head of Adult and Vocational education
Lin Liuni		Head of Personnel
14 March 2013 9:00-11:00		
Li Jinpeng	Xiangsihu Investment Company	Projects Department Manager
Pan Min		Head Company Finance Unit

**Xiangsihu Investment and Development Company (XIDC)
Procurement Capacity Assessment Questionnaire**

Item	Response
Part A. General Resource Assessment	
A.1 Is there a procurement department?	Yes, within the Project Division of XIDC.
A.2 What procurement does it undertake?	Procurement of consultant services, goods/equipment, and civil works.
A.3 Are the staff provided with written job descriptions?	No written job descriptions
A.4 How many years of experience does the head of the procurement unit have in a direct procurement role?	8 years
A.5 How many staff in the procurement department are:	5
(i) Full time	2
(ii) Part time	3
(iii) Seconded	None
A.6 At what level does the department report (to the head of agency, deputy, etc.)?	Project Division head reports to Vice General Manager in charge and then to the Managing Director. (Indicated in the organization chart.)
<p align="center">Organization of Xiang Sihu Ltd</p> <pre> graph TD Board[Board of Director] --- MD[Managing Director/CEO] Stakeholders[Stakeholders] --- MD MD --- GM[Gen Mgr] GM --- VGM1[Vice Gen Mgr] GM --- DA[Director Assistant] GM --- VGM2[Vice Gen Mgr] VGM1 --- ED1[Engineering Division 1] VGM1 --- ED2[Engineering Division 2] VGM2 --- PD[Project Division] VGM2 --- AD[Audit Division] PD --- TVET[TVET Project Team] PD --- FD[Financial Division] PD --- Office[Office] </pre>	
A.7 Do the staff that will be involved with the procurement have English language skills sufficient to undertake international procurement?	Yes
A.8 Are the number and qualifications of the staff sufficient to undertake the additional procurement that will be required under the proposed project?	Yes, sufficient in number and experience.
A.9 Does the unit have adequate facilities such as computers, internet connections, photocopy facilities, printers, etc. to undertake the expected procurement?	Yes
A.10 Is there a procurement training program for staff?	There are regular task-oriented training programs.
Part B. Procurement Processes: Goods and Works	
B.1 Has the agency undertaken foreign assisted procurement of goods or works recently (last 12 months or last 36 months)? (If yes, funded by what foreign agency and name of	Yes, the ADB-funded project component of Kelijiang River Eco-environmental Upgrading Project in

Item	Response
project)	2007-2011 as Implementation Agency(IA), and the WB-funded project component of Fenghungjiang River Eco-environmental Upgrading Project in 2009-ongoing, also as IA.
B.2 If the above is yes, what are the major challenges?	Strict procedure to obey and time bound to accomplish.
B.3 Is there a procurement process manual for goods and works?	Yes
B.4 If there is a manual is it up to date and does it cover foreign assisted procurement?	ADB funded project procurement guidelines.
B.5 Is there a systematic process to identify procurement requirements (1 year or more)?	Yes
B.6 Who drafts the specifications?	The Design Institute
B.7 Who approves the specifications?	The project implementation agencies (IAs), project management office (PMO), and ADB.
B.8 Are there standard bidding documents in use and have they been approved for use on ADB-funded projects?	Yes
B.9 Who drafts bidding documents?	IAs and Tendering Company.
B.10 Who manages the sale of documents?	The Tendering Company.
B.11 Are all queries from bidders replied to in writing?	Yes
B.12 Is there a minimum period for preparation of bids and, if yes, how long?	No
B.13 Does the bidding document state the date and time of opening and how close is it to the deadline for submission?	Yes
B.14 Is the opening public?	Yes and follows ADB procurement guidelines and Nanning Government procurement processes.
B.15 Can late bids be accepted?	No
B.16 Can bids be rejected at bid opening?	Yes, when it disobeys the bidding clauses
B.17 Are minutes taken?	Yes
B.18 Who may have a copy of the minutes?	The Tendering Company.
B.19 Are the minutes free of charge?	May be free of charge.
B.20 Who undertakes the evaluation (individuals(s), permanent committee, ad-hoc committee)?	An ad-hoc committee is created for this.
B.21 What are the qualifications of the evaluators in respect to procurement and the goods and works under evaluation?	Qualifications of the evaluators to be selected must follow the requirements in Nanning government procurement process.
B.22 Is the decision of the evaluators final or is the evaluation subject to additional approvals?	The decision of the evaluators is not final. It is subject to additional approvals (by Authorities).
B.23 Using at least three real examples, how long between the issue of the invitation for bids and contract effectiveness?	Too many examples to be listed here. The interval between the issue of the invitation for bids and contract effectiveness may vary.
B.24 Are there processes in place for the collection and clearance of cargo through ports of entry?	Yes
B.25 Are there established goods receiving procedures?	Yes
B.26 Are all goods received recorded as assets or inventory in a register or similar?	Yes
B.27 Is the agency/procurement department familiar with letters of credit?	Yes
B.28 Does the procurement department register and track warranty and latent defects liability periods?	Yes
Part C. Procurement Processes: Consulting Services	

Item	Response
C.1 Has the agency undertaken foreign assisted procurement of consulting services recently (last 12 months, or last 36 months)?	Yes, the ADB-funded Kelijiang River Eco-environmental Upgrading Project, 2007-2011, as Implementation Agency (IA), and WB-funded Fenghungjiang River Eco-environmental Upgrading Project, 2009-ongoing, also as IA.
C.2 If the above is yes, what were the major challenges?	Strict procedures to obey and accomplishment is time-bound.
C.3 Is there a procurement process manual for consulting services procurement?	No
C.4 Is the manual up to date and does it cover foreign assisted projects?	N/A
C.5 Who identifies the need for consulting services requirements?	PMO
C.6 Who drafts the terms of reference?	PMO
C.7 Do the terms of reference follow a standard format such as background, tasks, inputs, objectives, and outputs?	Yes
C.8 Who prepares the requests for proposals?	PMO
C.9 Are assignments advertised and expressions of interest called for?	Yes
C.10 Is a consultants' selection committee formed with appropriate individuals in terms of procurement and technical expertise?	Yes, the evaluation committee includes individuals both on procurement and technical expertise.
C.11 What criteria are used to evaluate expressions of interest?	Criteria yet to be established by PMO.
C.12 Historically, what is the most common method used (Quality, Cost-Based Selection or QCBS, Quality-Base Selection or QBS, etc.)	QCBS or QBS
C.13 Do firms have to pay for the proposal document?	Yes
C.14 Do the evaluative criteria follow a pre-determined structure and are they detailed in the request for proposal?	Yes
C.15 Are pre-proposal visits and meeting arranged?	Yes
C.16 Are minutes prepared and circulated after pre-proposal meetings?	Uncertain, it depends on the nature of procurement.
C.17 To who are minutes distributed?	Uncertain, it depends on the progress of procurement.
C.18 Are all queries from consultants answered to in writing?	Yes
C.19 Are the financial and technical proposals in separate envelopes?	Yes
C.20 Are proposal securities required?	Uncertain, it depends on the nature of procurement.
C.21 Are technical proposals opened in public?	Yes
C.22 Do the financial proposals remain sealed until the technical evaluation is completed?	Yes, until after ADB's approval of the technical proposal.
C.23 Are minutes of technical opening distributed?	Yes
C.24 Who determines the final technical ranking and how?	The ad-hoc committee determines the ranking using a scoring system.
C.25 Are the technical scores published and sent to all firms?	Yes
C.26 Is the financial proposal opened in public?	Yes
C.27 Are there minutes taken and distributed of financial proposal opening?	Yes
C.28 How is the financial evaluation completed?	The lowest financial proposal is given the full score.
C.29 Are face to face contract negotiations held?	Yes
C.30 How long after financial evaluation is the selected firm to negotiate?	15 days after financial evaluation.
C.31 What is the usual basis for negotiation?	The agency has no idea of usual basis

Item	Response
	for negotiation.
C.32 Are minutes of negotiation taken and signed?	Yes
C.33 How long after negotiations until the contract is signed?	The timing depends on how far the negotiation agreement is due.
C.34 Are advance payments made?	The agency has no idea or no experience.
C.35 Is there an evaluation system for measuring the outputs of consulting?	The agency has no idea or no experience.
Part D. Process Oversight and Control	
D.1 Is there a standard of ethics and are those involved in procurement required to formally commit to it?	Yes
D.2 Are those involved with procurement required to declare any potential conflict of interest and remove them from the procurement process?	Yes
D.3 Is the commencement of procurement dependent on external approvals (formal or de-facto) outside of the budgeting process?	Yes
D.4 Who approves procurement transactions and do they have procurement experience and qualifications?	For the project, the Nanning DRC, through the PMO, will approve procurement transactions. Concurrence with ADB will be required.
D.5 Which of the following actions require approval outside of the procurement unit or a permanent evaluation committee and who grants the approval?	
(i) Bidding document, invitation to pre-qualify or request for proposal	Yes
(ii) Advertisement of an invitation for bids, pre-qualification or call for expressions of interest	Yes
(iii) Evaluation reports	Yes
(iv) Notice of award	Yes
(v) Invitation to consultants to negotiate	Yes
(vi) Contracts	
(a) Is contractual performance systematically monitored and reported upon?	Yes
(b) Does the agency monitor and track its contractual payment obligations?	Yes
(c) On average, how long is it between receiving a firm's invoice and making payment?	2 weeks

**Nanning No. 4 Vocational and Technical School
Procurement Capacity Assessment (Questionnaire)**

Item	Response
Part A. General Resource Assessment	
A.1 Is there a procurement department?	The General Affairs Division handles procurement of goods, civil works, and services.
A.2 What procurement does it undertake?	
A.3 Are the staff provided with written job descriptions?	Yes
A.4 How many years of experience does the head of the procurement unit have in a direct procurement role?	Experienced 负责采购工作的员工均有多年采购工作经验 Give number of years experience.
A.5 How many staff in the procurement department are:	Three 3 staff.
(i) (i) Full time	3
(ii) (ii) Part time	
(iii) (iii) Seconded	
A.6 At what level does the department report (to the head of agency, deputy, etc.)?	For government purchase, General Affairs Division reports to the schools and the school reports to NN government procurement center. For the purchase of sundry items, the General Affairs Division reports to the school principal.
A.7 Do the staff that will be involved with the procurement have English language skills sufficient to undertake international procurement?	No
A.8 Are the number and qualifications of the staff sufficient to undertake the additional procurement that will be required under the proposed project?	All the project procurement activities are entrusted with PMO by the executing agency.
A.9 Does the unit have adequate facilities such as computers, internet connections, photocopy facilities, printers, etc. to undertake the expected procurement?	Yes
A.10 Is there a procurement training program for staff?	No
Part B. Procurement Processes: Goods and Works	
B.1 Has the agency undertaken foreign assisted procurement of goods or works recently (last 12 months or last 36 months)? (If yes, funded by what foreign agency and name of project)	No
B.2 If the above is yes, what are the major challenges?	N/A
B.3 Is there a procurement process manual for goods and works?	Yes, the Nanning government procurement manual is followed.
B.4 If there is a manual, is it up to date and does it cover foreign assisted procurement?	It does not cover foreign assisted procurement.
B.5 Is there a systematic process to identify procurement requirements (1 year or more)?	Yes
B.6 Who drafts the specifications?	Purchaser 采购人 Who is the purchaser?
B.7 Who approves the specifications?	Nanning government procurement center.
B.8 Are there standard bidding documents in use and have they been approved for use on ADB-funded projects?	Standard bidding documents in use but

Item	Response
	don't know if can be used on ADB-funded projects.
B.9 Who drafts bidding documents?	Nanning government procurement center.
B.10 Who manages the sale of documents?	Nanning government procurement center.
B.11 Are all queries from bidders replied to in writing?	Yes
B.12 Is there a minimum period for preparation of bids and, if yes, how long?	At least one week
B.13 Does the bidding document state the date and time of opening and how close is it to the deadline for submission?	Yes
B.14 Is the opening public?	Yes
B.15 Can late bids be accepted?	No
B.16 Can bids be rejected at bid opening?	Yes
B.17 Are minutes taken?	Yes
B.18 Who may have a copy of the minutes?	Nanning government procurement center.
B.19 Are the minutes free of charge?	Yes
B.20 Who undertakes the evaluation (individuals(s), permanent committee, ad-hoc committee)?	Ad hoc committee from evaluation expert pool.
B.21 What are the qualifications of the evaluators in respect to procurement and the goods and works under evaluation?	Yes
B.22 Is the decision of the evaluators final or is the evaluation subject to additional approvals?	Final
B.23 Using at least three real examples, how long between the issue of the invitation for bids and contract effectiveness?	N/A
B.24 Are there processes in place for the collection and clearance of cargo through ports of entry?	N/A
B.25 Are there established goods receiving procedures?	Yes
B.26 Are all goods received recorded as assets or inventory in a register or similar?	Yes
B.27 Is the agency/procurement department familiar with letters of credit?	N/A
B.28 Does the procurement department register and track warranty and latent defects liability periods?	Yes
Part C. Procurement Processes: Consulting Services	
C.1 Has the agency undertaken foreign assisted procurement of consulting services recently (last 12 months, or last 36 months)?	N/A
C.2 If the above is yes, what were the major challenges?	N/A
C.3 Is there a procurement process manual for consulting services procurement?	N/A
C.4 Is the manual up to date and does it cover foreign assisted projects?	N/A
C.5 Who identifies the need for consulting services requirements?	N/A
C.6 Who drafts the terms of reference?	N/A
C.7 Do the terms of reference follow a standard format such as background, tasks, inputs, objectives, and outputs?	N/A
C.8 Who prepares the requests for proposals?	N/A
C.9 Are assignments advertised and expressions of interest called for?	N/A
C.10 Is a consultants' selection committee formed with appropriate individuals in terms of procurement and technical expertise?	N/A
C.11 What criteria are used to evaluate expressions of interest?	N/A
C.12 Historically, what is the most common method used (Quality, Cost-Based Selection or QCBS, Quality-Base Selection or QBS, etc.)	N/A
C.13 Do firms have to pay for the proposal document?	N/A
C.14 Do the evaluative criteria follow a pre-determined structure and are they detailed in the request for proposal?	N/A
C.15 Are pre-proposal visits and meeting arranged?	N/A
C.16 Are minutes prepared and circulated after pre-proposal meetings?	N/A
C.17 To who are minutes distributed?	N/A

Item	Response
C.18 Are all queries from consultants answered to in writing?	N/A
C.19 Are the financial and technical proposals in separate envelopes?	N/A
C.20 Are proposal securities required?	N/A
C.21 Are technical proposals opened in public?	N/A
C.22 Do the financial proposals remain sealed until the technical evaluation is completed?	N/A
C.23 Are minutes of technical opening distributed?	N/A
C.24 Who determines the final technical ranking and how?	N/A
C.25 Are the technical scores published and sent to all firms?	N/A
C.26 Is the financial proposal opened in public?	N/A
C.27 Are there minutes taken and distributed of financial proposal opening?	N/A
C.28 How is the financial evaluation completed?	N/A
C.29 Are face to face contract negotiations held?	N/A
C.30 How long after financial evaluation is the selected firm to negotiate?	N/A
C.31 What is the usual basis for negotiation?	N/A
C.32 Are minutes of negotiation taken and signed?	N/A
C.33 How long after negotiations until the contract is signed?	N/A
C.34 Are advance payments made?	No
C.35 Is there an evaluation system for measuring the outputs of consulting?	N/A
Part D. Process Oversight and Control 过程监督和控制	
D.1 Is there a standard of ethics and are those involved in procurement required to formally commit to it?	By means of performance guarantee bond
D.2 Are those involved with procurement required to declare any potential conflict of interest and remove themselves from the procurement process?	Yes
D.3 Is the commencement of procurement dependent on external approvals (formal or de-facto) outside of the budgeting process?	No
D.4 Who approves procurement transactions and do they have procurement experience and qualifications?	Education Bureau and Nanning government procurement center
D.5 Which of the following actions require approval outside of the procurement unit or a permanent evaluation committee and who grants the approval?	No need
(i) Bidding document, invitation to pre-qualify or request for proposal	N/A
(ii) Advertisement of an invitation for bids, pre-qualification or call for expressions of interest	N/A
(iii) Evaluation reports	Nanning government procurement center
(iv) Notice of award	N/A
(v) Invitation to consultants to negotiate	N/A
(vi) Contracts	Nanning government procurement center
(a) Is contractual performance systematically monitored and reported upon?	No
(b) Does the agency monitor and track its contractual payment obligations?	No
(c) On average, how long is it between receiving a firm's invoice and making payment?	About 10 days
(d) What is the standard period for payment included in the contracts?	Goods delivery basis Works progress basis
(e) When payment is made late, are the beneficiaries paid interest?	No
(f) Are payments authorized by the same individuals empowered to approve invitation documents, evaluations, and contracts?	No
(g) Is there written audible trail of procurement decisions attributable to individuals and committees?	No
(h) Are procurement decisions and disputes supported by written	Yes

Item	Response
narratives such as minutes of evaluation, minutes of negotiation, notices of default/withheld payment?	
(i) Is there a formal non-judicial mechanism for dealing with complaints?	Yes
(j) Is a complaints resolution mechanism described in national procurement documents?	Not clear
Part E. Records Keeping	
E.1 Is there a referencing system for procurement files?	Yes
E.2 Are original contracts secured in a fire and theft proof location?	Secured in Vocational School and Nanning government procurement center
E.3 Are copies of bids or proposals retained with the evaluation?	Yes, both retained
E.4 Are copies of the original advertisements retained with the pre-contract papers?	N/A
E.5 Is there a single contract file with a copy of the contract and all subsequent contractual correspondence?	N/A
E.6 Are copies of invoices included with contract papers?	N/A
E.7 For what period are records kept? (How many years are these records kept?)	Archiving

**Nanning Health School
Procurement Capacity Assessment**

Item	Response
Part A. General Resource Assessment	
A.1 Is there a procurement department?	Yes, the General Affairs Division of school handles procurement.
A.2 What procurement does it undertake?	procurement on government purchase, and a small amount items purchase
A.3 Are the staff provided with written job descriptions?	Have job descriptions
A.4 How many years of experience does the head of the procurement unit have in a direct procurement role?	the General Affairs Division nominates a vice head who is responsible for procurement with 3 years experience
A.5 How many staff in the procurement department are:	3
(iv) Full time	2
(v) Part time	1
(vi) Seconded	none
A.6 At what level does the department report (to the head of agency, deputy, etc.)? 向什么样水平级的机构部门的主任/副主任报告（机构主任/副主任等）？	Report to vice principal in charge of general affairs and administration
A.7 Do the staff that will be involved with the procurement have English language skills sufficient to undertake international procurement?	No such skill
A.8 Are the number and qualifications of the staff sufficient to undertake the additional procurement that will be required under the proposed project?	N/A(outsourcing to EA)
A.9 Does the unit have adequate facilities such as computers, internet connections, photocopy facilities, printers, etc. to undertake the expected procurement?	Yes, adequate
A.10 Is there a procurement training program for staff?	No program
Part B. Procurement Processes: Goods and Works	
B.1 Has the agency undertaken foreign assisted procurement of goods or works recently (last 12 months or last 36 months)? (If yes, funded by what foreign agency and name of project)	No.
B.2 If the above is yes, what are the major challenges?	
B.3 Is there a procurement process manual for goods and works?	Yes, there is a school procurement process manual
B.4 If there is a manual, is it up to date and does it cover foreign assisted procurement?	No.
B.5 Is there a systematic process to identify procurement requirements (1 year or more)?	Yes ,
B.6 Who drafts the specifications?	The applicants from the school
B.7 Who approves the specifications?	The vice principal in charge
B.8 Are there standard bidding documents in use and have they been approved for use on ADB-funded projects?	N/A
B.9 Who drafts bidding documents?	N/A
B.10 Who manages the sale of documents?	N/A
B.11 Are all queries from bidders replied to in writing?	Not in writing, but spoken
B.12 Is there a minimum period for preparation of bids and, if yes, how long?	N/A
B.13 Does the bidding document state the date and time of opening and how close is it to the deadline for submission?	Yes
B.14 Is the opening public?	Yes

Item	Response
B.15 Can late bids be accepted?	No
B.16 Can bids be rejected at bid opening?	Yes when arrived late
B.17 Are minutes taken?	Yes
B.18 Who may have a copy of the minutes?	N/A
B.19 Are the minutes free of charge?	N/A
B.20 Who undertakes the evaluation (individuals(s), permanent committee, ad-hoc committee)?	Permanent committee
B.21 What are the qualifications of the evaluators in respect to procurement and the goods and works under evaluation?	Yes
B.22 Is the decision of the evaluators final or is the evaluation subject to additional approvals?	Decision of the evaluators is final
B.23 Using at least three real examples, how long between the issue of the invitation for bids and contract effectiveness?	Example 1, on May 17, 2012 issued bid notice on TV advertisement, on May 29, contract was signed. Example 2, on Aug 31, 2012 issued bid notice on food of Yuebin, on Sep 13, contract was signed. Example 3, on Jan 4, 2011 issued bid notice on teaching books, on Jan 21, contract was signed.
B.24 Are there processes in place for the collection and clearance of cargo through ports of entry?	N/A
B.25 Are there established goods receiving procedures?	Yes
B.26 Are all goods received recorded as assets or inventory in a register or similar?	Yes
B.27 Is the agency/procurement department familiar with letters of credit?	N/A
B.28 Does the procurement department register and track warranty and latent defects liability periods?	N/A
Part C. Procurement Processes: Consulting Services	N/A –the school has no such experience
C.1 Has the agency undertaken foreign assisted procurement of consulting services recently (last 12 months, or last 36 months)?	
C.2 If the above is yes, what were the major challenges?	
C.3 Is there a procurement process manual for consulting services procurement?	
C.4 Is the manual up to date and does it cover foreign assisted projects?	
C.5 Who identifies the need for consulting services requirements?	
C.6 Who drafts the terms of reference?	
C.7 Do the terms of reference follow a standard format such as background, tasks, inputs, objectives, and outputs?	
C.8 Who prepares the requests for proposals? C.8	
C.9 Are assignments advertised and expressions of interest called for?	
C.10 Is a consultants' selection committee formed with appropriate individuals in terms of procurement and technical expertise?	
C.11 What criteria are used to evaluate expressions of interest?	
C.12 Historically, what is the most common method used (Quality, Cost-Based Selection or QCBS, Quality-Base Selection or QBS, etc.)	
C.13 Do firms have to pay for the proposal document?	
C.14 Do the evaluative criteria follow a pre-determined structure and are they detailed in the request for proposal?	
C.15 Are pre-proposal visits and meeting arranged?	
C.16 Are minutes prepared and circulated after pre-proposal	

Item	Response
meetings?	
C.17 To who are minutes distributed?	
C.18 Are all queries from consultants answered to in writing?	
C.19 Are the financial and technical proposals in separate envelopes?	
C.20 Are proposal securities required?	
C.21 Are technical proposals opened in public?	
C.22 Do the financial proposals remain sealed until the technical evaluation is completed?	
C.23 Are minutes of technical opening distributed?	
C.24 Who determines the final technical ranking and how?	
C.25 Are the technical scores published and sent to all firms?	
C.26 Is the financial proposal opened in public?	
C.27 Are there minutes taken and distributed of financial proposal opening?	
C.28 How is the financial evaluation completed?	
C.29 Are face to face contract negotiations held?	
C.30 How long after financial evaluation is the selected firm to negotiate?	
C.31 What is the usual basis for negotiation?	
C.32 Are minutes of negotiation taken and signed?	
C.33 How long after negotiations until the contract is signed?	
C.34 Are advance payments made?	
C.35 Is there an evaluation system for measuring the outputs of consulting?	
Part D. Process Oversight and Control	
D.1 Is there a standard of ethics and are those involved in procurement required to formally commit to it?	Yes, the purchaser has signed on the responsibility commitment ordinance issued by school
D.2 Are those involved with procurement required to declare any potential conflict of interest and remove themselves from the procurement process?	N/A
D.3 Is the commencement of procurement dependent on external approvals (formal or de-facto) outside of the budgeting process?	Yes, the General affairs division determines the issue
D.4 Who approves procurement transactions and do they have procurement experience and qualifications?	Approved by Audit division, vice principal in charge of general affairs and administration, then the principal respectively.
D.5 Which of the following actions require approval outside of the procurement unit or a permanent evaluation committee and who grants the approval?	
(vii) Bidding document, invitation to pre-qualify or request for proposal	Approved by Audit division, vice principal in charge of general affairs and administration,
(viii) Advertisement of an invitation for bids, pre-qualification or call for expressions of interest	Approved by Audit division, vice principal in charge of general affairs and administration,
(ix) Evaluation reports	Approved by Audit division, vice principal in charge of general affairs and administration, and the local discipline committee of the Communist Party
(x) Notice of award	Approved by Audit division, vice principal in charge of general affairs and administration,

Item	Response
(xi) Invitation to consultants to negotiate	N/A
(xii) Contracts	
(d) Is contractual performance systematically monitored and reported upon?	N/A
(e) Does the agency monitor and track its contractual payment obligations?	Yes
(f) On average, how long is it between receiving a firm's invoice and making payment?	2 weeks
(g) What is the standard period for payment included in the contracts?	After acceptance of contract clause
(h) When payment is made late, are the beneficiaries paid interest?	Yes
(i) Are payments authorized by the same individuals empowered to approve invitation documents, evaluations, and contracts?	Two people
(j) Is there written audible trail of procurement decisions attributable to individuals and committees?	N/A
(k) Are procurement decisions and disputes supported by written narratives such as minutes of evaluation, minutes of negotiation, notices of default/withheld payment?	Yes
(l) Is there a formal non-judicial mechanism for dealing with complaints?	Yes
(m) Is a complaints resolution mechanism described in national procurement documents?	Yes
Part E. Records Keeping	
E.1 Is there a referencing system for procurement files?	N/A
E.2 Are original contracts secured in a fire and theft proof location?	Yes
E.3 Are copies of bids or proposals retained with the evaluation?	Yes
E.4 Are copies of the original advertisements retained with the pre-contract papers?	Yes
E.5 Is there a single contract file with a copy of the contract and all subsequent contractual correspondence?	N/A
E.6 Are copies of invoices included with contract papers?	Yes
E.7 For what period are records kept? (How many years are these records kept?)	Kept permanently

**APPENDIX 10: LISTS OF PROPOSED WORKS & GOODS CONTRACT PACKAGES
AND DESCRIPTIONS OF EQUIPMENT TO BE PROCURED**

1.1 Civil Work Contract Packages

No	Contract Package Name	Construction Content	Estimated Value (Thousands USD)	ADB Loan (Thousands USD)	Ratio of ADB Loan	Procurement Method	Procurement Date (M/Y)	Implementing Agency
Nanning No. 4 Vocational Technology School (Yongning Campus)								
1	Civil Contract Section 1 (Advanced Procurement)	No.2 Teaching Building, Training Dormitory Teacher Administrative Room, Pre-School Training Base	8,210.836	4655.5	56.70%	NCB	09/2013	Xiangsihu Investment Company
2	Civil Contract Section 2	Culture and Sport Stadium, Arts Building, No. 3-No.6 Students Dormitory, Library, Landscaping Training Base and utility Facilities	25,829.46	14,645.3	56.70%	ICB	02/2014	
3	Civil Contract Section 3	Reconstruction of water Supply Network	114.7541	0	0	NBF		
	Sub-total		34,155.05	19,300.8	56.51%			
Nanning Health School (Phase 2)								
4	Civil Contract Section 1 (Advanced Procurement)	A-3, A-4 Teaching Building	3159.328	1791.3	56.70%	NCB	09/2013	Xiangsihu Investment Company
5	Civil Contract Section 2	Experimental Building, Library and Office Building, Auditorium	36415.57	20647.6	56.70%	ICB	02/2014	
	Sub-total		39574.9	22,438.9	56.70%			
	Grand Total		73,729.95	41739.7	56.61%			

1.2 Equipment Procurement Contract Packages

No	Contract Package Name	Construction Content	Estimated Value (Thousands USD)	ADB Loan(Thousands USD)	Ratio of ADB Loan	Procurement Method	Procurement Date (M/Y)	Implementing Agency
Nanning No. 4 Vocational and Technical School (Yongning Campus)								
1	Equipment Contract Section 1	Hot Water System	360.7	360.7	100%	NCB	08/2014	Xiangsihu Investment Company
2	Equipment Contract	Water Treatment System	82	82	100%	NCB	08/2014	

No	Contract Package Name	Construction Content	Estimated Value (Thousands USD)	ADB Loan(Thousands USD)	Ratio of ADB Loan	Procurement Method	Procurement Date (M/Y)	Implementing Agency
	Section 2							
3	Equipment Contract Section 3	Equipment for Pre-school Training Base	393.4	393.4	100%	NCB	10/2014	
4	Equipment Contract Section 4	Equipment for Rehearsal Hall and Campus Broadcast	360.7	360.7	100%	NCB	10/2014	
5	Equipment Contract Section 5	Elevates	63.9	63.9	100%	NCB	08/2014	
6	Equipment Contract Section 6	Control Room Equipment	196.7	196.7	100%	NCB	08/2014	
7	Equipment Contract Section 7	Backup Power	82	82	100%	NCB	08/2014	
8	Equipment Contract Section 7	Outdoor Transformator	49.18	0	0	NBF		
	Sub-total		1588.58	1539.4	96.90%			
Nanning Health School (Phase 2)								
9	Equipment Contract Section 1	Equipment for Elderly Care, Stomatology Training, Rural Doctor Base	859.4	859.4	100%	NCB	10/2014	
10	Equipment Contract Section 2	Equipment for Security Card Reading and Campus Security Monitoring system	623	623	100%	NCB	08/2014	
11	Equipment Contract Section 3	Broadcast, Light, Sound System and Video System	1417.7	1417.7	100%	ICB	08/2014	Xiangsihu Investment Company
12	Equipment Contract Section 4	Vehicle	90.2	90.2	100%	NCB	10/2014	
13	Equipment Contract Section 5	Elevates	619.7	619.7	100%	NCB	08/2014	
14	Equipment Contract Section 6	Solar Energy Power Generating System	150.9	150.9	100%	NCB	08/2014	
	Sub-total		3760.8	3760.8	100%			
	Grand Total		5349.38	5300.2	99.08%			

1.3 Descriptions of Equipment to be Procured under the Project

Equipment Lists for Nanning Health School and Nanning No. 4 Vocational and Technical School

1. Associated with the construction of the Nanning Health School, the project involves the procurement of equipment for teaching and training, including computers, teaching audio system, projectors, etc. A summary of the equipment is shown in **Table 1**. The project will also procure new equipment for the elderly care facility as well as two rural training facilities located in two township hospitals. The summary of the equipment for elderly care and two rural medical staff training centers are shown in **Tables 2, 3, and 4**, respectively.

Table 1: Summary of Equipment Purchase for Nanning Health School

No	Description	Unit	Quantity	Remark
1	Campus Broadcasting Equipment - 2G DDR3, 500G, 12" LED	set	1	
2	Campus Security Card Reading System	set	1	
3	Security Monitoring System - 100 m range infrared camera (12)	set	1	
4	Multifunction Audio & Lighting System - 8 XLR	set	1	
5	Large LED Display - 40k/m ²	set	1	Auditorium
6	Multimedia System - 700 W	set	2	Conference
7	Classroom Multimedia System - 200 W	set	8	
8	Auditorium Sound and Light System - 75 W	set	1	
9	Stage Equipment	set	1	Auditorium
10	Large LED Display	ea	1	on stage
11	Teaching Multimedia System	set	1	
12	Gymnasium Lighting and Sound System	set	1	
13	Teaching Projector System	set	40	Classroom
14	Mini Bus (23 seats)	ea	1	
15	Pickup Truck	ea	1	
16	Elevator	ea	12	
17	Solar Power System - 50 KWp	ea	1	
(Source: Consultant)				

Table 2: Summary of Equipment List for Elderly Care Base

No	Description	Unit	Quantity	Remark
	<u>Elderly Care Equipment</u>			
1	CPM Joint Recovery Machine	set	6	
2	Joint Recovery Machine	set	10	
3	Arm Recovery Machine	set	10	
4	Wrist Recovery Machine	set	10	
5	Shoulder Recovery Machine	set	10	
6	Adjustable Grinding Plate	set	10	
7	Steps	set	4	
8	Twin Stand Supporters	set	4	
9	Roller	set	10	
10	Balance Board	set	10	
11	Muscle Training Board	set	10	
12	Supporter	set	10	
13	Upper Arm Excise Machine	set	6	
14	Walker	set	20	
15	Crutches	set	20	
16	Training Board	set	20	
17	PT Recovery Excise Bed	set	4	
18	OT Training Table	set	6	
19	Clothing Board	set	10	
	<u>Dental Experiential & Training</u>			
20	Digital Image Machine	set	1	
21	Digital Dental Image System	set	1	
22	Planting Machine	set	1	
23	Planting Accessories	set	1	
24	Pre-vacuum Sanitary Stove	set	1	
25	Dental Treatment Machine	set	20	
26	Dental Cleaning Machine	set	10	
27	UV Curing Machine	set	10	
28	Wireless UV Curing Machine	set	2	
29	Root Carnal Machine	set	2	
30	Root Canal Measuring Machine	set	2	
31	Root Canal Filling Machine	set	1	
(Source: Consultant)				

Table 3: Wutang Town Center Hospital Rural Training Base Equipment

No	Description	Unit	Quantity	Remark
1	Infant Heart Beat Monitoring Machine	set	1	
2	Defibrillator	set	1	
3	Digital Blood Pressure Meter	set	1	
4	Head Pressure Monitoring Machine	set	1	
5	Multifunction Labor Machine	set	1	
6	Electrocardiography (ECG)	set	1	
7	Blood Analyzer	set	1	
8	Surgery Table	set	1	
9	Surgery Lighting	set	1	
10	Lung Monitoring Machine	set	1	
11	Ventilator	set	1	
12	Stroke Recovery Machine	set	1	
13	Oxygen Machine	set	1	
14	Multifunction Discharging Machine	set	1	
15	Ultrasound Cleaning Machine	set	1	
16	Guardianship - PM8000	set	2	
17	Guardianship - G60	set	2	
18	Medical Bone Drill	set	1	
19	Multimedia Teaching System	set	1	
(Source: Consultant)				

Table 4: Wuming Shuangqiao Center Hospital Rural Training Base Equipment

No	Description	Unit	Quantity	Remark
1	Anastasia Respiration Machine	set	1	
2	Endoscopy	set	1	
3	Blood Analyzer	set	1	
4	Urine Analyzer LX5000	set	1	
5	Dynamic Blood Analyzer	set	1	
6	Urine Analyzer - U500	set	1	
7	Electrocardiography (ECG)	set	1	
8	Air Sanitation Machine	set	4	
9	Trans Cranial Doppler (TCD)	set	1	
10	Multimedia Teaching System	set	1	
(Source: Consultant)				

2. Similar to NHS, the project component of Nanning No.4 Vocational Secondary School involves the equipment purchase associated with the school upgrade and expansion. The equipment includes classroom equipment, audio equipment, kindergarten training base equipment, landscaping training base equipment, etc. The details are shown in **Table 5**.

Table 5: Equipment List for Nanning No. 4 Vocational and Technical School

No	Equipment		Unit	Quantities
Experiment & Training Building				
1	Control Room Equipment	Control exchange machine, routers, UPS, firefighting, etc	Set	1
Gymnasium & Track Field				
2	Water Treatment	Water treatment equipment	Set	1
Management Building and Trainee Dormitory				
3	Hot Water	Hot water system	Set	1
Kindergarten Training Base				
4	Children Study	Computer, TV, CD, AC, Storage, bed, keyboard, bench, toy, etc.	Set	15
5	Cafeteria	Kitchen equipment including cooking, cleaning, refrigerator, table, etc.	Set	1
6	Playground	Playground equipment	Set	1
7	Art and activity Room	Computer, TV, AC, projector, piano, CD, stereo, etc.	Set	1
8	Computer Room	Computer and accessory	Set	1
Library				
9	Lecture Hall	Furniture, sound system, lighting, central control, etc.	Set	1
10	Backup Power	Generator & accessory	Set	1
Campus Broadcasting System				
11	Broadcasting System	Campus wide broadcasting system	Set	1
(Source: Consultant)				