

## PROJECT PREPARATORY TECHNICAL ASSISTANCE

### A. Justification

1. The Government of the People's Republic of China (PRC) requested the Asian Development Bank (ADB) to provide lending support to demonstrate high efficiency water utilization in rocky desertification area in Guizhou Province. The proposed project is included in ADB's country operations business plan, 2015–2017 and the ensuing loan in ADB's 2018 lending pipeline for the PRC. Since the executing agency, Guizhou provincial government (GPG), and implementing agencies, Anlong and Nayong county governments (ACG and NCG), are not familiar with ADB's project preparation requirements, it is necessary to provide a project preparatory technical assistance (PPTA) to help the GPG, ACG, and NCG prepare the project that complies with ADB's requirements and includes best international practices.

### B. Major Outputs and Activities

2. The PPTA will (i) assess the technical feasibility of the project; (ii) conduct due diligence on the economic and financial feasibility of the project; (iii) review safeguard requirements; (iv) conduct social survey and consultations; (v) develop capacity of the GPG, ACG, and NCG for project management; and (vi) prepare project documents, including feasibility study reports, safeguard documents, and ADB's draft report and recommendations of the President (RRP). The major outputs and activities are summarized in Table A3.1.

**Table A3.1: Summary of Major Outputs and Activities**

Major Activities	Expected Completion Date	Major Outputs	Expected Completion Date
Sector assessment	February 2016	An inception report	February 2016
Assessment of the technical feasibility	September 2016	Interim and draft final reports including finalized FSRs for all subprojects, EIA, EMP, RP, a social and poverty analysis report, a gender action plan, a social action plan, a consultation and participation plan, an economic and financial analysis report, a financial management assessment report, PPMS, and draft RRP	September 2016
Financial due diligence of the project including financial management assessment, project financial evaluation, and financial analysis of entities	September 2016		
Assessment of economic validity of the overall project and components and risks to economic validity	September 2016		
Assessment of environmental, social, and resettlement impacts	September 2016		
Social survey and consultations	September 2016		
Capacity development of the GPG, ACG, and NCG for project management	November 2016	A final report	November 2016

ACG = Anlong county government, EIA = environmental impact assessment report, EMP = environmental management plan, FSR = feasibility study report, GPG = Guizhou provincial government, NCG = Nayong county government, PPMS = project performance management system, RP = resettlement plan, RRP = report and recommendation of the President.

Source: Asian Development Bank.

### C. Cost Estimate and Proposed Financing Arrangement

3. The PPTA is estimated to cost \$700,000 equivalent, of which \$500,000 and \$70,000 equivalent will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-other sources) and by the Climate Change Fund, respectively. The GPG will provide counterpart support in the form of counterpart staff, domestic transportation, provision of office space, communication facilities for consultants, and other in-kind contributions. The detailed cost estimate is presented in Table A3.2.

**Table A3.2: Cost Estimates and Financing Plan**

Item	Total Cost (\$'000)
<b>Asian Development Bank<sup>a</sup></b>	
1. Consultants	
a. Remuneration and per diem	
i. International consultants (11.75 person-months)	247.5
ii. National consultants (24.25 person-months)	175.7
b. International and local travel	29.6
c. Reports and communications	4.5
2. Equipment (computer, printer, etc.) <sup>c</sup>	2.0
3. Workshops, training, seminars, and conferences <sup>d</sup> (training program)	9.0
4. Surveys	7.1
5. Miscellaneous administration and support costs <sup>e</sup>	3.6
6. Contingencies	21.0
<b>Subtotal</b>	<b>500.0</b>
<b>Climate Change Fund<sup>b</sup></b>	
1. Consultants	
a. Remuneration and per diem	
i. International consultants (2.00 person-months)	44.1
ii. National consultants (2.00 person-months)	15.1
b. International and local travel	4.0
c. Reports and communications	0.5
2. Workshops, training, seminars, and conferences <sup>d</sup> (training program)	1.0
3. Surveys	4.9
4. Miscellaneous administration and support costs <sup>e</sup>	0.4
<b>Subtotal</b>	<b>70.0</b>
<b>Total</b>	<b>570.0</b>

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

<sup>b</sup> Established by the Asian Development Bank. Financing by the Climate Change Fund is limited for financing climate change assessments, and will be utilized on a front-loading basis.

<sup>c</sup> Equipment (will be handed over to Guizhou provincial government, Anlong county government, and/or Nayong county government upon completion of the project preparatory technical assistance).

Type	Quantity	Cost
Printer (1) and facsimile machine (1)	2	\$2,000

<sup>d</sup> Workshops, training, seminars, and conferences

Purpose	Venue
Stakeholder and resettlement consultation workshops	Anlong and Nayong Counties, Guizhou Province
Training on social and environmental safeguards, procurement, etc.	Province

<sup>e</sup> For office operation including costs for interpretation, translation, secretary, telephone, internet, electricity, and water.

Source: Asian Development Bank estimates.

## D. Consulting Services

4. The PPTA will be carried out by a team of consultants. A total of 13.75 person-months (pm) of international and 26.25 pm of national consulting services will be required. Table A3.3 provides details of the required expertise. The consulting firm will be selected by (i) inviting simplified technical proposals; and (ii) using the quality- and cost-based selection method, with a quality-cost ratio of 90:10. The outline terms of reference are described in paras. 5–16.

**Table A3.3: Summary of Consulting Services Requirement**

International Positions	PM	National Positions	PM
Water resources specialist /team leader	4.00	Water resources specialist /deputy team leader	4.50
Hydrologist	1.00	Hydrologist	1.50
Rocky desertification management specialist	1.00	Rocky desertification management specialist	1.50
Climate change specialist	2.00	Climate change specialist	2.00
Economist	1.75	Financial specialist	3.00
Environmental impact assessment specialist	2.00	Environmental impact assessment specialist	3.75
Social development, gender, and	2.00	Resettlement specialist	3.00

<b>International Positions</b>	<b>PM</b>	<b>National Positions</b>	<b>PM</b>
resettlement specialist		Social development and gender specialist	2.00
		Dam specialist	1.25
		Agriculture specialist	1.00
		Vegetation specialist	1.25
		Procurement specialist	1.50
<b>Total</b>	<b>13.75</b>		<b>26.25</b>

PM = person-months.

Source: Asian Development Bank estimates.

5. **Water resources specialists/team leader and deputy team leader** (international, 4 pm; national, 4.5 pm). The specialists will have a degree or relevant qualification in water resources management or other related fields, and work experience in designing projects. The specialists will have overall responsibility for quality of all PPTA outputs, coordinating government agencies and other specialists. Specifically, the specialists will (i) prepare a sector assessment report; (ii) design project components for water resources development, introduction of high efficiency irrigation and water supply systems, and establishment of eco-compensation mechanism; (iii) establish a project performance management system; (iv) prepare a project implementation schedule and detailed implementation arrangements; (v) prepare a draft RRP; and (vi) organize and implement training to develop capacity of the GPG, ACG, and NCG.

6. **Hydrologists** (international, 1 pm; national, 1.5 pm). The specialist will have a degree or relevant qualification in hydrology or other related fields, and work experience in water transfer. The specialist, together with the water resources specialists, will design a project component for introduction of high efficiency irrigation and water supply systems.

7. **Rocky desertification management specialists** (international, 1 pm; national, 1.5 pm). The specialists will have a degree or relevant qualification in land management or related fields, and work experience in land degradation management. The specialists will design project components for water and soil conservation and integrated ecological restoration and conservation in rocky desertification areas.

8. **Climate change specialists** (international, 2 pm; national, 2 pm). The specialists will have a degree or relevant qualification in climate change or related fields, and work experience in climate change studies. The specialists will (i) review climate change impacts and local planning for climate change impacts; (ii) assess potential climate change impacts; (iii) assess potential impacts to climate change the project may cause, and propose mitigation measures; and (iv) propose adaptation measures to anticipated regional climate change.

9. **Economist** (international, 1.75 pm). The specialist will have a degree or relevant qualification in economics, and work experience in project economic analysis. The specialist will (i) prepare project cost estimates, financing plan, financial projections, and financial sustainability assessment for non-revenue generating components; and (ii) conduct economic and financial analyses for individual project component and overall project.

10. **Financial specialist** (national, 3 pm). The specialist will have a degree or relevant qualification in finance and accounting, and work experience in financial analysis and financial management analysis. The specialist will (i) prepare project cost estimates, financing plan, and financial projections; (ii) conduct financial evaluation of the project and financial analysis of entities; (iii) conduct a financial management assessment of the GPG, ACG, and NCG; and (iv) propose arrangements for financial management.

11. **Environmental impact assessment specialists** (international, 2 pm; national, 3.75 pm). The specialists will have a degree or relevant qualification in environmental studies, and work experience in environmental impact assessment. The specialists will (i) assess potential environmental impacts of the project, including social impacts of environmental interventions; and (ii) prepare an environmental impact assessment report and an environmental management plan for the whole project.

12. **Social development, gender, and resettlement specialists** (international, 2 pm; national, 3 pm [resettlement] and 2 pm [social and gender development]). The specialists will have a degree or relevant qualification in social safeguards and/or development studies, and work experience in resettlement and/or social development studies. The specialists will (i) assess resettlement impacts; (ii) assist the ACG and NCG in preparing resettlement plans, with emphasis on livelihood restoration; (iii) assess indigenous people living in the project area and, if necessary, assist the ACG and/or NCG in preparing ethnic minority development plans; (iv) conduct a poverty, social, and gender analysis; and (v) prepare a social action plan, a consultation and participation plan, and a gender action plan.

13. **Dam specialist** (national, 1.25 pm). The specialist will have a degree or relevant qualification in dam construction or related fields, and work experience in dam designing. The specialist will (i) review domestic designs of Pingshan and Pingqiao Reservoirs; and (ii) confirm feasibility and safety of the designs by revising the designs, if necessary.

14. **Agriculture specialist** (national, 1 pm). The specialist will have a degree or relevant qualification in agriculture or related fields, and work experience in water saving agriculture. The specialist will design a project component for introduction of water saving agriculture.

15. **Vegetation specialist** (national, 1.25 pm). The specialist will have a degree or relevant qualification in botany or related fields, and work experience in vegetation and/or forestation on degraded lands. The specialist, together with the rocky desertification management specialists, will design a project component for water and soil conservation.

16. **Procurement specialist** (national, 1.5 pm). The specialist will have experience in procurement and consultant recruitments. The specialist will (i) assess capacity of the GPG, ACG, and NCG to undertake procurement and consultant recruitments; (ii) prepare a procurement plan; and (iii) prepare master bidding documents.

## **E. Implementation Arrangements**

17. The GPG will be the executing agency and the ACG and NCG will be the implementing agencies of the PPTA. A project leading group has been established in the GPG to provide overall guidance for PPTA implementation. A project management office will be established in Guizhou Water Resources Investment Co., Ltd that is under jurisdiction of Guizhou Provincial Water Resources Department and a 100% GPG-owned company, to administer day-to-day PPTA activities. The PPTA will be implemented over 9 months tentatively from 15 February to 15 November 2016. Equipment for PPTA consultants will be procured following ADB's Procurement Guidelines (2015, as amended from time to time), and handed over to the GPG, ACG, and/or NCG upon PPTA completion. Disbursement under the PPTA will be in line with ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time). The PPTA processing and implementation schedule is listed in Table A3.4.

**Table A3.4: Technical Assistance Processing and Implementation Schedule**

<b>Major Milestones</b>	<b>Expected Completion Date</b>
Concept paper approval	January 2016
Recruitment of consultants	October 2015–January 2016
Commencement of project preparatory technical assistance	February 2016
Submission of project preparatory technical assistance draft final report	September 2016
Loan fact-finding mission	September 2016
Submission of project preparatory technical assistance final report	November 2016

Source: Asian Development Bank estimates