



Technical Assistance Report

Project Number: 40643
May 2007

People's Republic of China: Preparing the Xinjiang Urban Transport and Environmental Improvement Project

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 23 April 2007)

Currency Unit	–	yuan (CNY)
CNY1.00	=	\$0.1295
\$1.00	=	CNY7.7238

ABBREVIATIONS

ADB	–	Asian Development Bank
CAREC	–	Central Asia Regional Economic Cooperation
DMF	–	design and monitoring framework
EA	–	executing agency
EIA	–	environmental impact assessment
EMP	–	environmental management plan
FSR	–	feasibility study report
IA	–	implementing agency
MIS	–	management information system
PMO	–	project management office
PPMS	–	project performance monitoring system
PRC	–	People's Republic of China
RP	–	resettlement plan
SEIA	–	summary environmental impact assessment
TA	–	technical assistance
XUAR	–	Xinjiang Uygur Autonomous Region
XUARG	–	government of XUAR

TECHNICAL ASSISTANCE CLASSIFICATION

Targeting Classification	–	General intervention
Sector	–	Transport and communications
Subsector	–	Roads and highways
Themes	–	Inclusive social development, sustainable economic growth, environmental sustainability
Subthemes	–	Human development, developing urban areas, urban environmental improvement

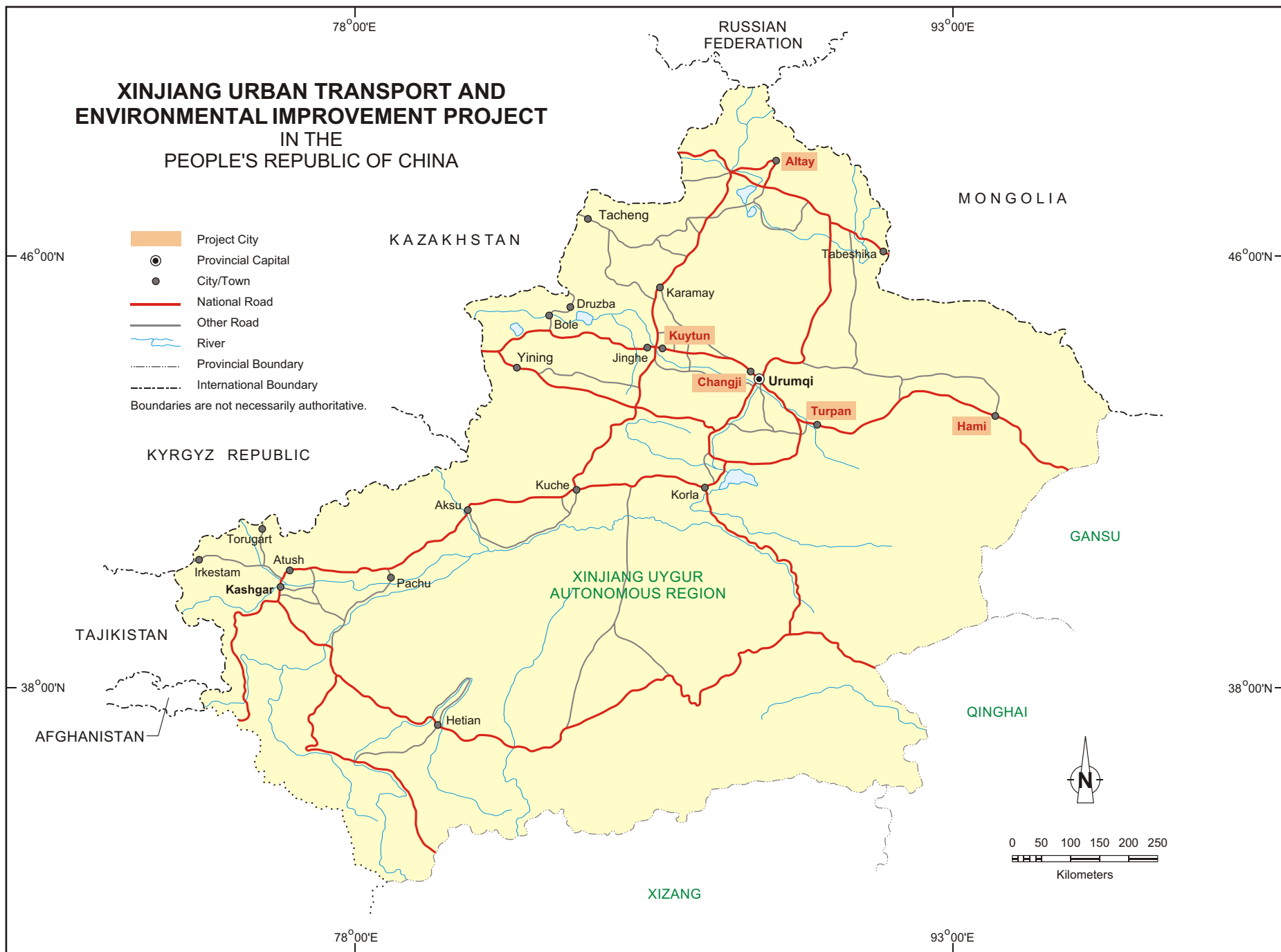
NOTE

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

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XINJIANG URBAN TRANSPORT AND ENVIRONMENTAL IMPROVEMENT PROJECT IN THE PEOPLE'S REPUBLIC OF CHINA

- Project City
 - Provincial Capital
 - City/Town
 - National Road
 - Other Road
 - River
 - Provincial Boundary
 - International Boundary
- Boundaries are not necessarily authoritative.



I. INTRODUCTION

1. During the country program midterm review for the People's Republic of China (PRC) undertaken in April 2007, the Government confirmed its request for assistance from the Asian Development Bank (ADB) to finance the proposed Xinjiang Urban Transport and Environmental Improvement Project. The project will improve urban infrastructure facilities including roads and traffic management facilities in five cities: Altay in the northwest border area, and Changji, Hami, Kuytun, and Turpan along a major transport corridor in north Xinjiang Uygur Autonomous Region (XUAR). ADB is currently processing the Xinjiang Regional Road Improvement Project,¹ the subject of which is the expressway linking Urumqi, the capital of XUAR, to southern Xinjiang and to its border ports with Central Asia; and the Xinjiang Municipal Infrastructure and Environmental Improvement Project,² which covers two border cities (Yining and Tacheng), the Land Port of Alashankou, and the Kanas National Nature Reserve Area. Both projects are scheduled to be considered by ADB's Board of Directors in 2008.

2. The proposed project is included in the 2009 lending program and a project preparatory technical assistance (TA) is scheduled for processing in 2007.³ ADB's Fact-Finding Mission visited the project area in March–April 2007; held discussions with the central Government, the government of XUAR (XUARG), and other stakeholders in each project city; carried out analyses for preparing a design and monitoring framework, an initial poverty and social assessment, initial safeguards assessments and categorization; and collected other necessary information. This report is based on the understanding reached with the Government regarding the impact and outcome, methodology and key activities, cost estimates, financing plan, and implementation arrangements for the TA, as well as the Mission's observations in the field.

II. ISSUES

3. XUAR is located in the northwest part of the PRC. It is the country's largest region with an area of 1.66 million square kilometers (1/6 or 16.7% of the country's total area) but a relatively small population of 20 million (1.5% of the PRC population), comprising Han Chinese and other ethnic groups, the largest of which is the Uygur. Xinjiang is the gateway between the PRC and the Central Asian republics. As a major transport corridor of the historic Silk Road, Xinjiang has a wealth of history and ethnic culture that has promoted tourism development. The region is also rich in natural resources including oil, metals, and minerals that provide a sound basis for economic development. However, Xinjiang remains one of the poorest parts of the country. Of the 86 counties in XUAR, 27 are categorized as national poverty counties. In 2006, about 13.4% of Xinjiang's population lived on incomes below the official poverty line as compared with the 3.4% national average poverty incidence.⁴ In an effort to maximize the development potential of Xinjiang and to raise the living standard of the people, the Government has accorded high priority to support for the sustainable economic development of Xinjiang, particularly border cities and cities along major transport corridors. At the same time the Government is concerned to protect the environment. ADB actively supports⁵ this initiative and has recommended, among others, that the Western Region Development Strategy should focus on accelerating infrastructure development (transport, communications, power, and water

¹ ADB. 2006. *Technical Assistance to the People's Republic of China for Preparing the Xinjiang Regional Road Improvement Project*. Manila (TA 4773–PRC). The TA draft final report was completed in October 2006.

² ADB 2006. *Technical Assistance to the People's Republic of China for Preparing the Xinjiang Municipal Infrastructure and Environmental Improvement Project*. Manila (TA 4805–PRC). The TA began in March 2007.

³ The TA first appeared in *ADB Business Opportunities* on 13 April 2007.

⁴ The official poverty line in 2005 was CNY958 per capita per year, which is lower than the international standard of \$1 per capita per day.

⁵ ADB. 2005. *Technical Assistance to the People's Republic of China for Provincial Development Strategy of Selected Provinces in Northwestern Region*. Manila (TA 4727–PRC).

resources) and environmental protection to lay the foundation for sustainable development. This project, together with the Xinjiang Regional Road Development Project and Xinjiang Municipal Infrastructure and Environmental Improvement Project (footnotes 1 and 2) that are under preparation, fully supports this strategy.

4. XUAR shares borders with Afghanistan, India, Kazakhstan, Kyrgyz Republic, Mongolia, Pakistan, Russian Federation, and Tajikistan. XUAR and its neighboring countries have many cultural similarities and economic complementarities. It is abundantly endowed with natural resources. Considering these advantages, XUAR's development strategy focuses on its potential role in and contribution to the Central Asia Regional Economic Cooperation (CAREC) program. To benefit from these opportunities and maximize potentials for strong growth, there is a need to improve urban infrastructure, including roads, water supply, power, telecommunications, and environmental services. The project cities plan to use other sources to finance urban utility services and have requested ADB's assistance in supporting their urban roads development and traffic management programs through the proposed project.

5. Several major internationally supported infrastructure projects are under construction or were completed recently in XUAR: Tarim Basin Water Conservancy and Agriculture Support (World Bank), Kuytun to Symlake Expressway (World Bank), Urumqi Urban Transportation Improvement (World Bank), and Yining City Environment Management (Japan Bank for International Cooperation). However, the present roads infrastructure and transport management and services are inadequate to meet the increasing traffic and utility service demands in the project cities. The incomplete roads networks, low standard of transport infrastructure, low flow capacity at surface intersections, poor road maintenance, absence of segregation of transport types, and inadequate traffic management all contribute to traffic congestion, accidents, and increased air pollution from emissions. In addition, restricted vehicular access limits the effectiveness of government services, including solid waste collection and emergency services particularly for fires. Lack of utility service corridors constrains the necessary expansion of water supply networks and sewerage systems, resulting in reliance on unsafe groundwater and the discharge of pollutants to the ground. Public health and property are thus put at risk.

6. The proposed project consists of five components involving the construction of new roads, upgrading the existing inadequate roads, and improving traffic planning and management and road safety in the cities of Altay, Changji, Hami, Kuytun, and Turpan. All have approved development master plans and programs that the project will directly support. The five project components are similar in content and seek to (i) improve the existing road infrastructure to relieve traffic congestion and accidents; (ii) assist commercial access to transshipment trade and improve urban living conditions; (iii) facilitate improvement and expansion of urban utility services to the city population; (iv) enable enhanced environmental protection and management within the growing urban areas; and (v) extend roads (and associated utility services) into new development areas of the city to support increased industrial activity, raise the level of the local economy, increase employment, and reduce the incidence of poverty. A rapid environmental assessment has been carried out and a category A assessment is proposed to ensure that the project will minimize adverse environmental impacts on the affected people and maximize the environmental benefits to the project cities and their residents.

7. The total length of roads to be constructed is about 168 kilometers of varying widths and capacities. Included are eight bridge structures totaling 340 meters in length. Main roads will incorporate bicycle paths, footpaths, bus stop sheds, and landscape strips. All roads will include lighting, signage, and traffic controls. Associated utility services will be provided along off-road corridors, but the services will be constructed under separate projects to be financed from

domestic and other sources and implemented in conjunction with the ADB-financed project. Road construction will involve total land acquisition of about 287 hectares and resettlement of about 2,100 households. Involuntary resettlement and indigenous peoples assessments have been undertaken, and the conclusion is that category A is applicable to both.

8. The project will focus on providing sustainable municipal infrastructure, increased economic activity and employment, and protecting the environment to foster rapid economic growth in the northern and western regions of XUAR. Importantly, it will bring tangible benefits to the project cities' environment by improving urban air quality and reducing road accidents, vehicular emissions, and dust through more efficient road networks, integrated traffic management operations, and road safety education and measures. The Government has requested ADB to provide a loan of \$100 million to support the project, which will be the second ADB-financed municipal development and environmental protection project in XUAR (footnote 2). The project supports ADB's country strategy for the PRC, particularly the priority given to making markets work more efficiently through infrastructure development and promoting environmental sustainability, and is consistent with its CAREC strategy. The project will support the poor by raising levels of the local economy, improving environmental protection, and reducing the incidence of pollution and risk to health; and supports the national and regional infrastructure development strategies as well as the ADB urban sector strategy. The experience gained from similar investment projects in medium-sized and small urban centers in environmentally sensitive provinces—including Anhui, Fujian, Guangxi, Hebei, Heilongjiang, Henan, Jilin, and Shandong—and the knowledge generated from various policy-oriented studies have been incorporated in the design.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

9. The TA will assist the Government in preparing the Xinjiang Urban Transport and Environmental Improvement Project. The project will enhance public infrastructure, increase environmental protection, and raise the living standards of the population in Xinjiang regional cities by improvements to local road networks and traffic management. It will also facilitate the provision of associated utility services and improve access for emergency services (fire, ambulance, and police) in the five cities. The TA will assist XUAR to (i) review and identify the most appropriate urban road infrastructure developments to improve public access, facilitate trade and enterprise, reduce road accidents, and improve the urban environment; (ii) prepare a feasibility study for each of the five components; and (iii) prepare an urban transport and environmental improvement project, including environmental impact assessment, environmental management plan, social analysis, indigenous peoples development plan, and resettlement plan in accordance with ADB's policy and guidelines. The design and monitoring framework is in Appendix 1.

B. Methodology and Key Activities

10. The TA will be implemented in three phases. Phase 1, lasting 1 month, will comprise studies to (i) review and assess the current shortcomings and constraints to economic development and adverse environmental impacts imposed by the lack of appropriate road networks in the cities; (ii) review the Government's economic and environmental development strategies, priorities, and investment plans for the northwest region; (iii) identify the problems and urgency of mitigating needs relating to urban road infrastructure in the project cities; (iv) review the likely resettlement impact of the project; (v) develop a project design and monitoring framework (DMF) taking into consideration the economic, financial, social, environmental

impacts of the project; and (vi) prepare an inception report. During phase 2, lasting for 2.5 months, the TA will (i) assess the potential impacts of the components based on technical, institutional, environmental, social and ethnic, economic, financial, and other relevant factors; (ii) formulate balanced urban roads infrastructure development and pollution control strategies comprising structural and nonstructural measures; (iii) update feasibility studies of the five components; (iv) assist XUAR to prepare (and/or strengthen the existing) draft environmental impact assessment, resettlement and indigenous peoples plans according to ADB's guidelines and policies, and conduct public consultation meetings and disclosure of relevant information; (v) refine the DMF through a stakeholder workshop in each project city; and (vi) prepare an interim report. Phase 3 for 2.5 months, will assist XUAR to (i) formulate an overall investment project for ADB funding; (ii) consolidate feasibility study reports prepared in phase 2; (iii) formulate procurement needs and corresponding procurement arrangements; (iv) justify the project in financial, economic, social, and environmental terms; and (v) prepare a draft final report. An initial poverty and social analysis is in Appendix 2.

11. XUAR has limited experience with internationally funded projects and the implementing agencies in the project cities have no experience with ADB procedures. Therefore the consultant will provide appropriate training both as a continuous exercise during project preparation and, specifically, in three 2-day workshops covering the following subjects: (i) procurement, (ii) environmental impact assessment and environmental management planning, (iii) project performance monitoring system, (iv) management information systems, (v) resettlement plans, and (vi) indigenous peoples and social assessment. The workshops will be held after the inception report has been finalized.

12. Major risks to the successful implementation of the TA include (i) inadequate counterpart support and performance, (ii) lack of adequate and timely provision of necessary data, (iii) delay in submitting required studies, (iv) delay in appointing and mobilizing consultants and design institutes, and (v) inadequate performance by the consultants and design institutes. To mitigate these risks, the recruitment and performance of the consultants and design institutes will be monitored closely. The Government has agreed to provide adequate counterpart support and all necessary data according to an agreed-upon timetable. Close coordination among the consultants, executing and implementing agencies, and ADB will further mitigate these risks.

C. Cost and Financing

13. The total cost of the TA is estimated to be \$900,000 equivalent. It is proposed that \$700,000 be financed on a grant basis by ADB's TA funding program. The Government will provide the balance of local costs, equivalent to \$200,000, to cover in-kind counterpart costs and services including counterpart staff, office space, furniture, administrative support and interpretation services, logistics and local (city) transportation. The Government has been informed that approval of the TA does not commit ADB to finance any ensuing project or to extend any further technical assistance with respect to the implementation of any recommendations of the TA. The detailed cost estimates are in Appendix 3.

D. Implementation Arrangements

14. XUAR will be the Executing Agency for the TA. It has established a project leading group, chaired by a vice governor, to provide overall guidance and support to the proposed project. A project management office (PMO) comprising the Xinjiang Finance Bureau,

Development and Reform Commission, and Construction Bureau, has been established⁶ and reports to the project leading group. The PMO will maintain interdepartmental coordination, ensure the study team's access to relevant information and data, liaise with ADB on matters relating to TA implementation, and facilitate socioeconomic, poverty and other surveys required. The PMO is led by a director and has three experienced professional staff, including an interpreter/translator, who will work with the consultants on a full-time basis.

15. The TA will be carried out over a 6-month period and is expected to start in December 2007 and be completed in June 2008. A total of 47.5 person-months of consulting services (19 international and 28.5 national) will be required. The international consultants will provide expertise in transport planning and management, roads engineering and road safety, financial and economic analyses, resettlement planning and social impact analysis (poverty, gender, and indigenous peoples), institutional capacity development, and environmental impact assessment. The national consultants will have expertise in transport planning, road and transport engineering, civil and geotechnical engineering, project economic and financial analyses, environmental protection, socioeconomic analysis and resettlement, and institutional and legal aspects for urban development. The terms of reference for the consultants are in Appendix 4.

16. An international consulting firm in association with national consultants will be engaged in accordance with ADB's *Guidelines on the Use of Consultants* (2007, as amended from time to time) and other arrangements satisfactory to ADB for the engagement of national consultants. ADB will select and engage consultants on the basis of the quality of the proposal (80%) and the cost (20%) of the services to be provided (the standard quality- and cost-based selection method) using simplified technical proposal procedures. All reports by the consultants will be prepared in English and translated into Chinese. The consultants will maintain close relationships with ADB and XUARG and regularly discuss progress and findings. Tripartite meetings involving XUARG, ADB staff, and the consultants will be held in Urumqi city to provide guidance to the consultants and to review their reports.

17. The PMO will provide a suitably furnished office with utilities and telecommunication access, city-level transport (excluding transport between project locations) for consultants, materials, maps, data, and documents required by the TA, and will cover the cost of utilities for the use of the consultants, counterpart professional staff, and support staff. The TA equipment will be procured by the consultants in accordance with ADB's *Procurement Guidelines* (2007, as amended from time to time) and transferred to XUARG upon the completion of the TA.

IV THE PRESIDENT'S DECISION

18. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$700,000 on a grant basis to the Government of the People's Republic of China for preparing the Xinjiang Urban Transport and Environmental Improvement Project, and hereby reports this action to the Board.

⁶ The PMO is established to serve both the Xinjiang Municipal and Environmental Improvement Project (TA 4805) and the proposed project.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
Impact Enhanced urban environment and living standards in Xinjiang regional cities (Altay, Changyi, Hami, Kuytun, and Turpan) through improved road infrastructure and traffic management.	Public satisfaction with the environment and health increased (to be quantified when baseline has been established). Reduced incidence of delays and traffic accidents. ^a Improved air quality in project cities. ^a Increased average per capita income of urban population. ^a Poverty reduced by 50% over base year 2000 complying with MDG (Target 1).	Annual socioeconomic surveys undertaken as part of the PPMS. Municipality and police records/statistics. Statistical records. Air quality data to be collected as part of PPMS.	Assumptions <ul style="list-style-type: none"> • Project design and construction are implemented effectively. • Project financing requirements, including those from ADB, are provided on time. • The Government and ADB sign loan and project agreements. Risks <ul style="list-style-type: none"> • Costs are higher than foreseen. • Urban development pressures outpace planned infrastructure development, especially for roads.
Outcome Project design and FSRs completed and agreed-upon by government and ADB.	Memorandum of understanding signed by Government and ADB at final tripartite meeting.	Memorandum of understanding.	Assumptions <ul style="list-style-type: none"> • Government priorities do not change. • Government does not seek other sources of funding.
Outputs <ol style="list-style-type: none"> 1. Analysis of Xinjiang's 11th 5-year development plan, project cities' master plans and current 5-year development plans, their financing requirements, and institutional capacities. 2. Technical, environmental, economic, financial, and 	Analysis of current situation and future directions of development in the project areas to be completed by the end of month 1 of the PPTA. Consensus reached on the midterm draft report by month 4.	Inception report and first tripartite review meeting (month 2). Interim report and second tripartite review meeting (month 4).	Assumptions <ul style="list-style-type: none"> • Domestic FSRs are prepared in thorough and timely fashion. • Domestic EIAs are comprehensive and prepared in timely fashion. • Support comes from all levels of government agencies concerned. • Information is made available to consultants in timely fashion.

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
<p>social appraisal of the five project components.</p> <p>3. RPs, IPDPs, poverty and social assessment report. Socioeconomic impact of the project components and policy options on vulnerable groups and implications for resettlement.</p> <p>4. SEIA and EMP.</p> <p>5. Institutional capacity-building plan and corporate development plan.</p> <p>6. Participatory plan assessments.</p> <p>7. Training workshops.</p>	<p>Household surveys completed by month 3 of TA.</p> <p>Draft SEIA and EMP submitted for review by month 5 of the TA.</p> <p>XUAR government agrees, in principle, to include the capacity-building component in the project design and to introduce good corporate governance in relevant agencies.</p> <p>Three stakeholder workshops to be conducted at inception, midterm, and final tripartite meeting.</p> <p>Stakeholder workshops to be conducted to develop problem-tree and DMF (at least one per city).</p> <p>Three 2-day training workshops between inception and interim reports, focused on</p> <p>(i) procurement, (ii) resettlement/IPDP, (iii) PPMS and MIS.</p>	<p>Survey findings and affordability analysis and draft resettlement plans.</p> <p>EIAs of various project components and final consultant report (month 5)</p> <p>Midterm review mission.</p> <p>Minutes of the stakeholders workshops.</p> <p>Material and notes of workshops (months 2 and 4).</p>	<p>• Land acquisition and resettlement issues are addressed at an early stage.</p> <p>Risks</p> <p>• Delay in appointment of domestic design institutes by government.</p> <p>• Performance of domestic design institutes is inadequate, resulting in poorly prepared FSRs, EIAs, RPs, IPDP, and SAs.</p>

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
8. Draft final report.	Draft proposal is prepared as part of the consultant final report submitted to ADB by the end of month 6.	Draft final report of the consultants ADB project team (month 6).	
9. Final report.	Submitted 30 days after comments on draft final report.	Comments from XUARG, ADB and tripartite review. (month 7).	
Activities with Milestones			Inputs
1.1 Review and analyze Xinjiang regional and city 11th 5-year development plans and programs and their financing requirements (month 1). 1.2 Submit TA inception tripartite meeting report and hold first stakeholder workshop (month 2). 1.3 Hold five DMF workshops, one per city (months 2–3). 2.1 Assess the technical, financial, economic, environmental, and social viability of project components, including conducting household survey (months 1–3). 2.2 Analyze the project component/policy options for environment impact, poverty reduction, social impact, and involuntary resettlement (months 2–4). 2.3 Estimate detailed costs and financing plan and institutional arrangements for different project components/policy options (months 3–5). 2.4 Establish monitoring and evaluation system for project (month 4). 2.5 Develop capacity-building and financing components (month 4). 2.6 Conduct second stakeholder workshop and second tripartite meeting (month 4). 2.7 Conduct three 2-day training workshops for EA, IAs and design institutes on procurement; RP and IPDP; and EIA/EMP (months 2–4). 2.8 Hold public consultation workshops on EIA, RP, and IPDP (month 4). 3.1 Fine-tune the technical, financial, economic, environmental, and social assessments based on tripartite discussions (month 5). 3.2 Hold final stakeholder workshop (month 6). 3.3 Submit final report and hold third tripartite meeting (month 6).			<ul style="list-style-type: none"> • ADB Inputs <ul style="list-style-type: none"> - Provide \$700,000 grant including consultancy inputs: 19 person-months international and 28.5 person-months national. • Government Inputs <ul style="list-style-type: none"> - Provide \$200,000 equivalent counterpart facilities and services to include TA project office with 2 full-time professionals and 2 full-time translators, and preparation of FSRs, RPs, SAs, IPDPs, EIAs, and EMPs.

ADB = Asian Development Bank, DMF = design and monitoring framework, EA = executing agency, EIA = environmental impact assessment, EMP = environmental management plan, EPB = Environmental Protection Bureau, FSR = feasibility study report, IA = implementing agency, IPDP = indigenous peoples development plan, MDG = Millennium Development Goal, MIS = management information system, PPMS = project performance monitoring system, PPTA = project preparatory technical assistance, RP = resettlement plan, SA = social assessment report, SEIA = summary environmental impact assessment, XUARG = Xinjiang Uygur Autonomous Region.

^a Values to be determined during the project preparatory technical assistance.

INITIAL POVERTY AND SOCIAL ANALYSIS

A. Linkages to the Country Poverty Analysis

Is the sector identified as a national priority in country poverty analysis? <div style="float: right;"> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No </div>	Is the sector identified as a national priority in country poverty partnership agreement? <div style="float: right;"> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No </div>
<p>Contribution of the sector or subsector to reduce poverty in the People's Republic of China (PRC):</p> <p>The Xinjiang Urban Transport and Environmental Improvement Project is one of the development priorities of the Government to promote pro-poor economic growth and raise the living standard of the population in one of the country's poorer western regions. Through its Western Region Development Strategy, the Government is committed to improve municipal infrastructure and the environment in poor interior regions such as Xinjiang Uygur Autonomous Region.</p>	

B. Poverty Analysis

Targeting Classification: General intervention

<p>What type of poverty analysis is needed?</p> <p>The poverty analysis will do the following:</p> <ul style="list-style-type: none"> (i) identify how the project relates to national and provincial priorities in the country poverty analysis; (ii) assess the effects of the ensuing project on its beneficiaries, especially socioeconomic and health benefits and impacts on income levels; and (iii) identify poverty-related baselines for project monitoring and evaluation.

C. Participation Process

<p>Is there a stakeholder analysis? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>An initial stakeholder workshop has been held in each of the five project cities. Stakeholder analysis is required to</p> <ul style="list-style-type: none"> (i) assess stakeholders' interest in, importance to, and influence over the project; (ii) identify local institutions and processes upon which to build; and (iii) provide a basis and strategy for participation <p>Is there a participation strategy? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Participatory process will be an integral part of implementing the technical assistance (TA) to ensure a high level of congruence of goals among all major stakeholders. A series of participatory workshops will be held to ensure full participation of major stakeholders in the design process of the proposed project. The workshops will be held both centrally in Urumqi and locally in the project cities.</p>
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D. Gender Development

<p>Strategy to maximize impacts on women:</p> <p>An analysis to assess gender-related issues will be conducted during TA implementation as part of poverty and social assessment. The analysis will be based on the specific findings of the social survey to be conducted throughout each of the project cities. Findings and recommendations will be incorporated into the design and monitoring framework and project design.</p> <p>Has an output been prepared? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>The output will be prepared in the process of TA implementation.</p>
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E. Social Safeguards and Other Social Risks

Item	Significant/ Not Significant/ None	Strategy to Address Issues	Plan Required
Resettlement	<input checked="" type="checkbox"/> Significant <input type="checkbox"/> Not significant <input type="checkbox"/> None	<p>Involuntary resettlement category A.</p> <p>The project will require significant permanent and temporary land acquisition to improve infrastructure in four of the cities and possible land acquisition in one city. The total number of affected persons is predicted to exceed 6,000. The resettlement plans (RPs) will be prepared following the PRC <i>Land Administration Law</i> and the Asian Development Bank's (ADB) <i>Involuntary Resettlement Policy</i> (1995). The RPs will be disclosed in accordance with ADB's <i>Public Communications Policy</i> (2005).</p>	<input checked="" type="checkbox"/> Full (4) <input checked="" type="checkbox"/> Short (1) <input type="checkbox"/> None
Affordability	<input type="checkbox"/> Significant <input checked="" type="checkbox"/> Not significant <input type="checkbox"/> None	<p>The development of basic road infrastructure in Xinjiang region will be a government responsibility and is not directly rechargeable to the population. Affordability is not considered a major concern, but it will be assessed further during TA implementation as part of economic and financial analyses.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Labor	<input type="checkbox"/> Significant <input type="checkbox"/> Not significant <input checked="" type="checkbox"/> None	<p>No labor retrenchments are envisaged. In fact, the project will generate employment during implementation and subsequently with the expansion in economic activity that the project supports.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Indigenous Peoples	<input checked="" type="checkbox"/> Significant <input type="checkbox"/> Not significant <input type="checkbox"/> None	<p>Indigenous peoples category A</p> <p>Xinjiang is an autonomous region with a total population of around 19 million, comprising Han Chinese plus a majority of 46 other ethnic groups, the largest of which is Uyghur. Due to the nature of the project and the general domestic integration of the ethnic groups, it is envisaged that the project impact on all ethnic groups would be wholly positive. Nevertheless, the impact will be assessed further in the poverty and social assessment.</p> <p>The project assignment to category A will be confirmed during TA implementation.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Other Risks and/or Vulnerabilities	<input type="checkbox"/> Significant <input type="checkbox"/> Not significant <input checked="" type="checkbox"/> None	<p>No other social risks are anticipated as a result of the proposed project.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Total Cost
A. Asian Development Bank (ADB) Financing^a	
1. Consultants	
a. Remuneration and Per Diem	
i. International Consultants (19 person-months)	342
ii. National Consultants (28.5 person-months)	151
b. International and Local Travel	38
c. Reports and Communications ^b	29
2. Equipment ^c	19
3. Workshops ^d	27
4. Surveys	25
5. Translation ^e	15
6. Representative for Contract Negotiations ^f	7
7. Contingencies	47
Subtotal (A)	700
B. Government Financing	
1. Office Accommodation and Transport ^g	25
2. Local Support Staff ^h	40
3. Remuneration and Per Diem of Counterpart Staff	30
4. Surveys and Investigations	
a. Environmental Impact Assessments	25
b. Socioeconomic Surveys	30
c. Project Design	50
Subtotal (B)	200
Total	900

^a Financed from ADB's technical assistance funding program.

^b Includes office communications, printing and binding of reports, and translation into Chinese.

^c Includes desktop computers, photocopier, fax machine, and software.

^d Includes tripartite meetings, stakeholder and training workshops.

^e Refers to translating project-related Chinese documents.

^f Includes the cost of travel and per diem for Government observers invited for contract negotiations.

^g Includes telephone lines (one international) and city-level transport.

^h Includes office supplies and secretarial/interpreting services.

Note: Items A3, A4, and A5 (workshops, surveys, and translation) are provisional cost items and are not subject to competitive bidding.

Source: ADB estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

A. Objectives

1. The objectives of the technical assistance (TA) are to (i) identify the most appropriate municipal road construction and maintenance program to facilitate economic development, expand urban utility services, enhance environmental protection and management, support employment generation, and raise the existing low income levels in the secondary cities of the northwest region; (ii) prepare a feasibility study for an investment project; and (iii) formulate the project for possible funding by the Asian Development Bank (ADB) to improve urban transport infrastructure and environmental protection in Xinjiang regional cities.

B. Policy Dialogue-Related Activities

2. Policy dialogue is ongoing between ADB and the People's Republic of China (PRC) to support development in the Western Region and to strengthen cross-border cooperation between Xinjiang Uygur Autonomous Region (XUAR) and the Central Asia republics. On the basis of discussions with the government of XUAR (XUARG), the consultants will prepare notes for the policy dialogue on (i) the road program in relation to strengthening PRC's trade links with Central Asia republic countries; (ii) municipal infrastructure services as applicable; (iii) cost recovery and tariff reform; (iv) poverty reduction, social and indigenous peoples protection, and resettlement policies; (v) regulatory enforcement and monitoring, and (vi) institutional strengthening. The consultants will also take note of the policies and plans recommended in the Provincial Development Strategy for selected Western Provinces (TA 4727-PRC) and their application to Xinjiang, and the ADB/PRC Partnership in Urban Development (2006).

C. Design and Monitoring Framework

3. In consultation with government agencies, and the public and project stakeholders, the consultants will develop, through workshops and meetings, a design and monitoring framework for the project that outlines the impact, outcomes, outputs, and inputs or activities. The consultants will develop baseline traffic, environmental, and social indicators (including health and other relevant data) necessary to effectively monitor project performance, and will collect baseline indicators as appropriate. The project framework will be developed using a problem-tree analysis. It will be based on a participatory approach¹ involving beneficiaries and stakeholders in project development, which will form the basis for the project performance management systems (PPMS) and risk and sensitivity analysis.

D. Training

4. The Executing Agency, XUARG, has limited experience with internationally funded projects, and implementing agencies (IAs) have no experience with ADB procedures. Therefore the consultant will provide appropriate training as a continuous exercise during project preparation, specifically in two workshops that will cover the following subjects: (i) procurement; (ii) environmental impact assessment (EIA) and environmental management plan (EMP) during project preparation and project implementation; (iii) PPMS; (iv) management information systems; (v) resettlement plans (RPs); and (vi) indigenous peoples and social assessment. The workshops will be held immediately after the issue of the inception and interim reports.

¹ Starting with city workshops during the initial TA Fact-finding Mission in March-April 2007.

E. Overall Scope of Work²

5. The TA will be implemented over 6 months. Key activities of the TA consultants, working in close association with XUARG, are to (i) prepare a feasibility study report, including an assessment of the financial, economic, social, and environmental impacts of the project in accordance with ADB's policies and guidelines; (ii) formulate an investment project to improve roads, to facilitate utility services infrastructure and environmental protection in project cities and areas in the context of regional economic development; and (iii) provide training and capacity building in the management and implementing agencies. In particular, the consultants' work will cover the following aspects.

1. Technical Aspects (international consultant, 5.5 person-months; national consultant, 6.0 person-months)

6. Each of the five project components will comprise upgrading and expansion of the road networks. Roads to be constructed / reconstructed total about 130 kilometers and the length of bridges included totals 340 meters. Roads will include lanes for motorized and nonmotorized traffic, footways, green space, lighting, traffic controls, pedestrian shelters, and, where applicable, bus stop sheds. Associated utility services³ will have been laid along off-road corridors under proposed footway or landscape strips through separate projects with other funding sources, but to be implemented in conjunction with the ADB-financed project. The consultants will assess and prepare recommendations on (i) the existing and predicted demand capacities of these roads, (ii) the suitability of proposed carriageway standards and designs, (iii) the suitability and adequacy of proposed bridges and culverts to convey flood flows, (iv) road safety measures and design parameters to be applied to intersections and other vehicle maneuvering areas, (v) suitability of proposed provisions for cyclists and pedestrians, and (vi) an effective road maintenance procedure and program.

2. Environmental Impact Assessment (international, 2.5 person-months; national, 3.0 person-months)

7. The consultants will review the EIAs of the project components, suggest improvements, and help XUARG prepare a summary environmental impact assessment (SEIA) and an EMP for each project component, following ADB's *Operations Manual Section F1 on Environmental Considerations in ADB Operations* (2006) and *Public Communications Policy* (2005). They should identify any gaps between the EIAs and the requirements of ADB's environmental policy, and recommend additional studies to fill the gaps and improve the EIAs. Other specific duties include the following: (i) identify risks and provide mitigating measures, where appropriate, and provide inputs in the write-ups for the EIAs and relevant sections of the feasibility studies; (ii) assist XUARG with stakeholder participation, consultation, involvement during EIA/SEIA preparation and documentation of these consultations and results in the EIA and SEIA, and disclosure of relevant information; (iii) evaluate the environmental appropriateness of the project components and the use of the proposed technology; (iv) provide the necessary environment analysis and justification inputs for the financial and economic analyses of each project component; (v) establish environmental baseline indicators and performance targets for the design and monitoring framework; (vi) prepare policy notes for the discussion of urban air quality improvement, and environmental and land use planning and management; (vii) prepare the terms of reference and budgetary requirements for independent environment monitoring and evaluation during project implementation; (viii) ensure that the SEIA and EMP are prepared in conformity with ADB's guidelines; (ix) assess the capacity

² Detailed terms of reference for individual team members will be provided.

³ Water supply, sewerage, heating, gas, power, and telecommunications.

of XUARG and IAs for environmental assessment, management, and monitoring and recommend measures for capacity building, if necessary; and (x) prepare a Powerpoint presentation of the SEIA for ADB peer review.

3. Financial Analysis and Management Assessment (international, 3.0 person-months; national, 4.0 person-months)

8. The consultants will make a financial analysis of each project component and an analysis of the financial performance of the relevant revenue-generating entity in accordance with ADB's *Guidelines for the Financial Governance and Management of Investment Projects Financed by the Asian Development Bank*. In particular, they will (i) work with the economists to provide financial information and analysis relevant to a review of policy and practice relating to financing, operating, and maintaining urban road infrastructure and traffic management facilities; (ii) assess the financial sustainability of the project components; (iii) document and present the historical financial statements of the relevant project component entities; (iv) identify areas for improvement and training needed with respect to the quality of financial statements, disclosure, and notes to the financial statements; (v) review the past 5 years' financial performance and evaluate their financial capacity regarding cost recovery, borrowing capacity, accounts receivable, and subsidies, as appropriate; (vi) prepare income statements, balance sheets, and cash-flow statements for relevant project component entities in nominal terms, forecast the results for 20 years after the full project operation begins, and calculate relevant financial ratios; (vii) review the detailed cost tables with unit costs, physical quantities, and phasing of the project cost; and review and identify contract packages and the financing plan; (viii) analyze and summarize project costs using COSTAB or a similar software; (ix) for each IA, assess financial management and review current accounting and administrative capacities, the internal control system employed, current internal audit, external or government audit; and recommend any changes as appropriate; and (x) design a fund-flow mechanism and identify appropriate ADB disbursement procedures, based on the project needs and the capacity of the EA and IAs to manage fund flow and disbursements.

4. Economic Analysis (international, 3.0 person-months; national, 4.0 person-months)

9. The consultants will work with the appointed design institutes to design and appraise each project component. The economic analysis will include, but will not be limited to, these tasks: (i) review the economic analysis in the domestic feasibility studies and identify any divergence from ADB's *Guidelines for the Economic Analysis of Projects* and other relevant publications; (ii) review the economic rationale for each project component, and recommend changes to the proposed role of government in each project component as needed; (iii) review the economic justification for each project component, based on economic development and urban transport master plans, urban development plans, EMPs, or other relevant strategic plans and determine the extent of further benefit-cost analysis required to appraise the economic basis for each project component, including estimating the economic internal rate of return; (iv) review the analysis of options for each project component, and ensure that the least-cost option is identified; (v) assist with design questions for the household survey; (vi) apply the modern welfare theory to estimate the welfare impact of each project component on the poorest households; (vii) conduct a health impact analysis; (viii) develop economically sound indicators of health impacts of the project, and use the household survey and other relevant sources to develop baseline estimates of those indicators; (ix) determine if there are synergies between the roads and other municipal services and the economic benefits of urban infrastructure and environmental improvements; and (x) evaluate economic risks to the project.

5. Social Dimensions, Resettlement and Indigenous Peoples (international, 3.0 person-months; 2 national, 4.0 person-months each)

10. Using the initial poverty and social assessment, (i) review the poverty situation in project cities and areas and assess the project's potential impact on the poor; (ii) survey project beneficiaries by gender and income group, identify vulnerable groups and estimate beneficiaries falling below the official poverty line, conduct affordability analysis, assess project impacts and recommend mitigating measures; (iii) assess the present socioeconomic status of indigenous peoples/ethnic minorities, also identifying social and cultural practices in relation to land/resources and livelihood systems; (iv) assess likely positive and negative impacts of the project on ethnic minorities' social, economic, and cultural practices; (v) identify culturally appropriate mechanisms for engaging ethnic minorities in consultations and relevant project activities; (vi) design the questionnaire for the household survey, use the survey results to assess the social and poverty reduction impact, and assist in conducting a distribution analysis; (vii) collect and analyze health data, which will be used to develop a PPMS; (viii) orient XUARG on ADB's *Involuntary Resettlement Policy* (1995) and *Policy on Indigenous Peoples* (1998) requirements and procedures, assess the policy and legal framework for resettlement in the PRC, and propose measures to bridge any gap between ADB and PRC policies; (ix) review the draft indigenous peoples development plans, where the likely impacts are found significant, and prepare modifications as required in compliance with ADB's *Operations Manual Section F3 on Indigenous Peoples* (2006); (x) review the draft RPs and modify as required in compliance with ADB's *Operations Manual Section F2 on Involuntary Resettlement* (2006), and assist the IAs in finalizing the RPs; (xi) define categories for impact and compensation eligibility of affected people, and prepare an entitlements matrix based on PRC laws and regulations and ADB's resettlement policy; (xii) identify compensation and rehabilitation options, and develop time-bound livelihood rehabilitation and improvement programs in consultation with affected people; (xiii) assist XUARG in preparing a public consultation and disclosure plan and initiate a participatory process for preparing and implementing the RP and indigenous peoples development plan among affected people; (xiv) assess the baseline socioeconomic condition, needs, and priorities of women affected by land acquisition and resettlement, and identify specific measures to assist them; (xv) assess whether compensation standards and associated budgets and available lands are sufficient and decide if consultation on these issues has occurred; (xvi) review the organizational structure and capacity to implement resettlement, and recommend improvements and actions required before the start of land acquisition; (xvii) prepare a summary RP and a detailed resettlement implementation schedule that is linked to the overall project implementation schedule; and (xviii) help XUARG develop an internal and external monitoring and evaluation plan, specifying key indicators of progress, mechanisms for reporting, resource requirements, and database maintenance.

6. Institutional Development, Capacity Building, and Training (international, 2.0 person-months; national, 3.5 person-months)

11. The consultants will (i) assess the capacity of XUARG to formulate infrastructural development projects and of IAs to implement, operate, maintain, and manage the facilities to be constructed under the project, considering the technical, managerial, and administrative expertise of the staff; (ii) prepare institutional capacity-building programs for relevant project components concerned with roads and traffic management in line with ADB's *Guidelines for Financial Governance and Management of Investment*; (iii) propose a detailed, realistic, and operationally sound organization of the project management office to ensure efficient implementation of the project as well as an efficient structure for the IAs; (iv) assess and determine the interagency arrangements and coordination among the roads and other municipal services during construction and operation and maintenance of the completed infrastructure facilities; (v) design and conduct training workshops to cover ADB procedural requirements: e.g., procurement, PPMS, management

information systems, EIA and EMP, resettlement and indigenous peoples, and social assessment; and (vi) during project implementation identify the consulting services required for further training programs under the loan.

F. Reporting

12. The consultants will submit the following reports: (i) the inception report, within 4 weeks from the start of the TA, which will finalize the approach, present a detailed work plan and implementation schedule, and identify any need to improve the four project components for which the feasibility study reports (FSRs) have been prepared; (ii) the interim report presenting a preliminary description of the investment project as a whole, including costing, findings and recommendations, to be submitted 12 weeks after the TA starts, together with an interim EIA and draft summary RP; (iii) summary and full EIA reports within 20 weeks from the start of the TA; (iv) a social impact and indigenous peoples assessment report and a summary RP within 22 weeks from the start of the TA; (v) a draft final report (DFR) covering detailed design and cost estimates, economic analyses, etc., 24 weeks after the TA starts, together with an FSR for the project as a whole, plus individual revised FSRs for the five project components; and (vi) a final report, 2 weeks after receiving comments on the DFR from the Government and ADB. Those comments will be issued no later than 6 weeks after issue of the DFR. This activity is allowed 2 weeks input time.

13. All reports are to be written in English and translated into Chinese. Three copies of each report (in English) are to be submitted to ADB and 10 copies (in both Chinese and English) are to be submitted to XUARG. Reports should address all aspects of the terms of reference to the level of detail appropriate for the given stage of the TA and include revised project logical frameworks. The consultants will present key findings in workshops. Members of the XUAR project leading group, representatives of the Ministry of Finance, National Development and Reform Commission, and local communities, and ADB staff will participate in the workshops and the tripartite meetings, which will be organized after the submission and review of the inception report, interim report, and draft final report. The consultants will assist ADB in preparing a draft report and the recommendation of the President to the Board of Directors of ADB.