

SUPPLEMENTARY DOCUMENT INSTITUTIONAL ANALYSIS AND CAPACITY BUILDING ASSESSMENT

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1. Introduction

1.1 This appendix describes and analyses the institutional set up for the Xinjiang Altay Urban Infrastructure and Environment Improvement Project (the Project) to be implemented, under the direction of the Xinjiang Uygur Autonomous Region Government (XUARG). The objectives of the analysis are to ensure that:

- The Project is institutionally sound and adequate capacity exists for a successful implementation, and
- The institutional arrangements facilitate effective and sustainable operations and maintenance of the project facilities.

1.2 In order for the Project to be implemented in a successful manner, ADB and XUARG need to agree upon suitable institutional and project management arrangements. These arrangements need to provide for:

- Ease of project preparation and approval by both ADB and relevant domestic authorities
- Strong project management during the implementation by Altay Project Management Office (APMO) supported as necessary by Xinjiang Project Management Office (XPMO), as the representative of XUARG.
- Ensuring the implementing agencies have the capability to effectively discharge their responsibilities for the implementation of the sub-components for which they are responsible
- There is a clear definition of the IAs' responsibilities and their relationships with APMO, XPMO and other agencies involved in project implementation.
- The efficient future operation and management of the project facilities, so that the Project is fully sustainable in terms of finance and service provision.
- Capacity building based on the specific features of the Project, and especially recognition of the local situation under which the Project will be implemented and the project facilities operated (small towns in a relatively remote and under-developed area of the PRC).

1.3 With these objectives in mind, this appendix contains the following analysis:

- Sector level analysis in respect of urban water and environmental management in the PRC (Section 2)
- Institutional arrangements in Xinjiang relevant to the Project (Section 3)
- Description and analysis of the proposed project management arrangements for both the construction and operations phases of the Project (Sections 4 and 5)
- The identification of capacity building needs (Section 6)
- Procurement capacity assessment (Section 7)
- Proposals for the institutional development and capacity building component of the Project (Section 8); and
- A summary of conclusions drawn from the analysis (Section 9).

1.4 Detailed annexes that provide supporting information or analysis to the main appendix are included as follows:

Annex 1 – Details of the project management arrangements of Altay Government
 Annex 2 – Institutional information in respect of project agencies in Buerjin County
 Annex 3 – Institutional information in respect of project agencies in Fuhai County
 Annex 4 – Institutional information in respect of project agencies in Habahe County
 Annex 5 – Institutional information in respect of project agencies in Jimunai County
 Annex 6 – Institutional information in respect of project agencies in Qinghe County
 Annex 7 – Equipment needs identified by the Project Implementing Agencies (IAs)
 Annex 8 – Detailed results of procurement capacity assessment
 Annex 9 – Detailed scope of work for loan consultancy
 Annex 10 – Detailed budget for capacity building with assumptions made.

2 PRC Sector Level Analysis

2.1 National Arrangements for Urban Environmental Management

A consolidated urban water environmental management system operates according to the scope of duties of the ministries as determined by the State Council. The Ministry of Environmental Protection (MOEP) supervises water quality of industrial discharge and municipal sewage discharge. The Ministry of Housing, Rural and Urban Development (MOHURD), formerly the Ministry of Construction, has regulatory responsibilities for urban management and public utility services, including roads, water supply, urban drainage, environmental sanitation, district heating and wastewater treatment but most of these responsibilities are delegated to local governments at various levels. MOHURD is only directly responsible for developing urban development strategies, medium and long-term development planning, and providing guidance for urban management and the provision of the related public utility services. The Ministry of Water Resources (MWR) has overall responsibilities for flood control, river pollution control, and water conservation. The Ministry of Health (MOH) is responsible for supervising public health, drinking water safety, and prevention of epidemics. The National Development and Reform Commission (NDRC), as a multi-functional administration department of the State Council, is responsible for overall coordination of economic policy implementation, including energy saving and resource utilization. NDRC has two responsibilities that directly impact on the Project. Firstly, all major capital investment projects must be approved by NDRC (or by local DRCs in accordance with procedures stipulated by NDRC), which examines project feasibility, technical viability, and financing before giving project approval. The second very important role of NDRC is in economic regulation and price management. Basically NDRC acts as the senior national pricing regulator, although in practice pricing decisions for local urban services are delegated to the Provincial or Municipal level and NDRC restricts itself to major pricing decisions of national significance and providing regulatory guidelines for local governments to follow with respect to their pricing decisions, and in respect of preferential taxation policies to promote efficient resource utilization. The Ministry of Finance, along with NDRC and MOHURD, plays a key role in the establishment of financing and cost recovery strategies for urban management.

It can be seen from this regulatory framework that several agencies at national level get involved in urban development and environmental improvements. **Figure 1** indicates the relationships between the State level agencies with key responsibilities relating to urban development and the provision of public services to urban residents.

2.2 Interface between National and Local Governments

As determined by the PRC Constitution, the government is divided into central and local levels, with the relevant Ministry at the national level supervising the various departments and functions performed at local level. These supervisory arrangements have traditionally led to the establishment of lower level agencies in local governments that mirror and report to respective higher level central government agencies. For urban management the relevant levels of Government are: Provinces (including Autonomous Regions such as Xinjiang, and the four Directly-managed Municipalities of Beijing, Shanghai, Tianjin and Chongqing); Municipalities (or Prefectures); Urban Districts, counties and county level cities, and the lowest level is town or township.

At the provincial/regional level, government structures closely replicate the national level structure, and the duties of relevant departments concerned with the urban environment are also similar to those of their national-level counterparts. At city level the allocation of responsibilities between the different levels of government depends on the size of the city, with smaller cities and towns having simpler, more rationalized arrangements than in medium sized or larger cities. It is at the city or county level that almost all urban services and infrastructure provision is planned and implemented. **Figure 2** illustrates the relationships

between the different levels of government and, distinguishes between the line of direct accountability and functional supervision.

Figure 1 - Overview of State Level Government with emphasis on Urban Management

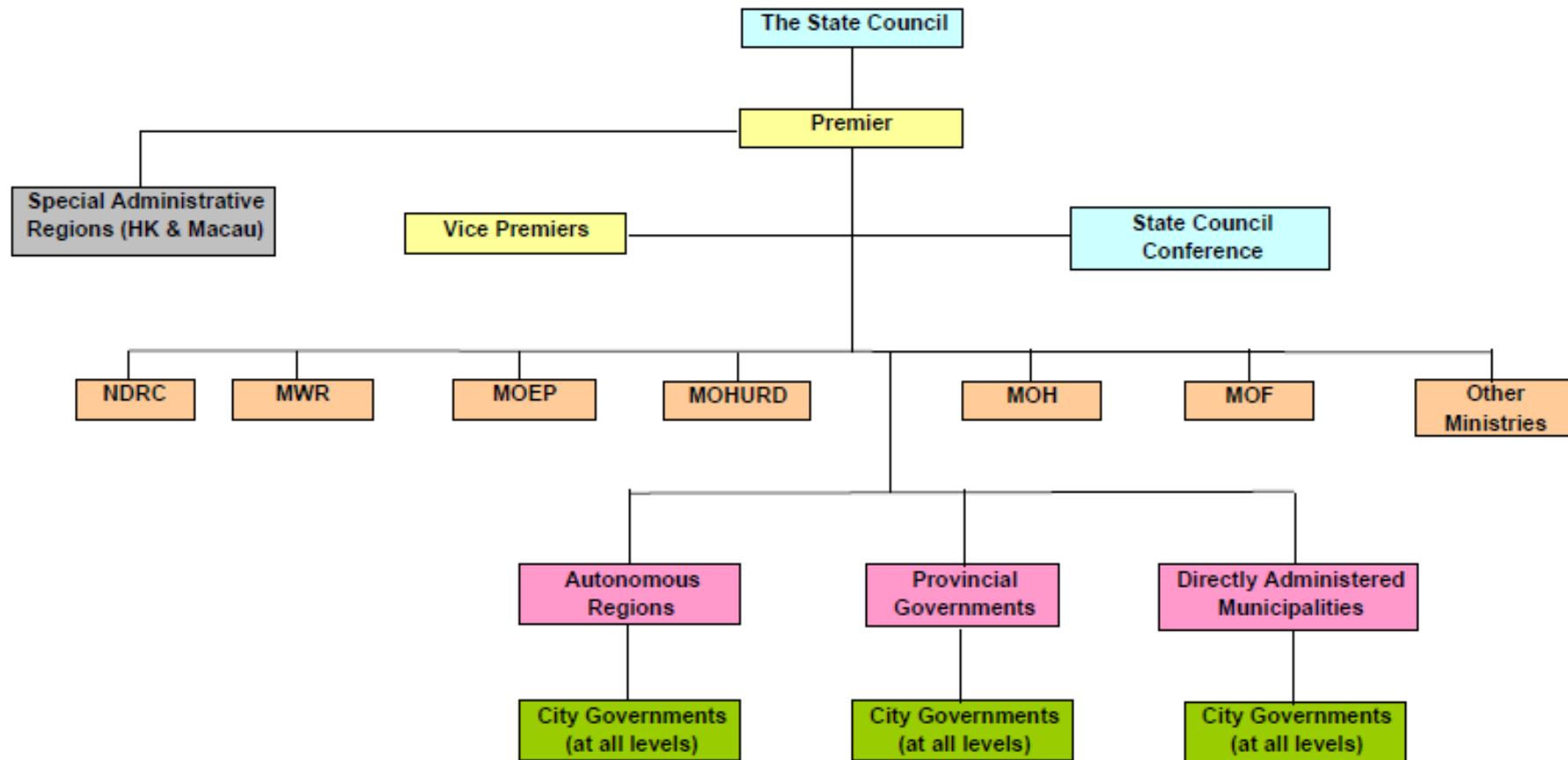


Figure 2 - Overview of PRC Government Organization and Relationships

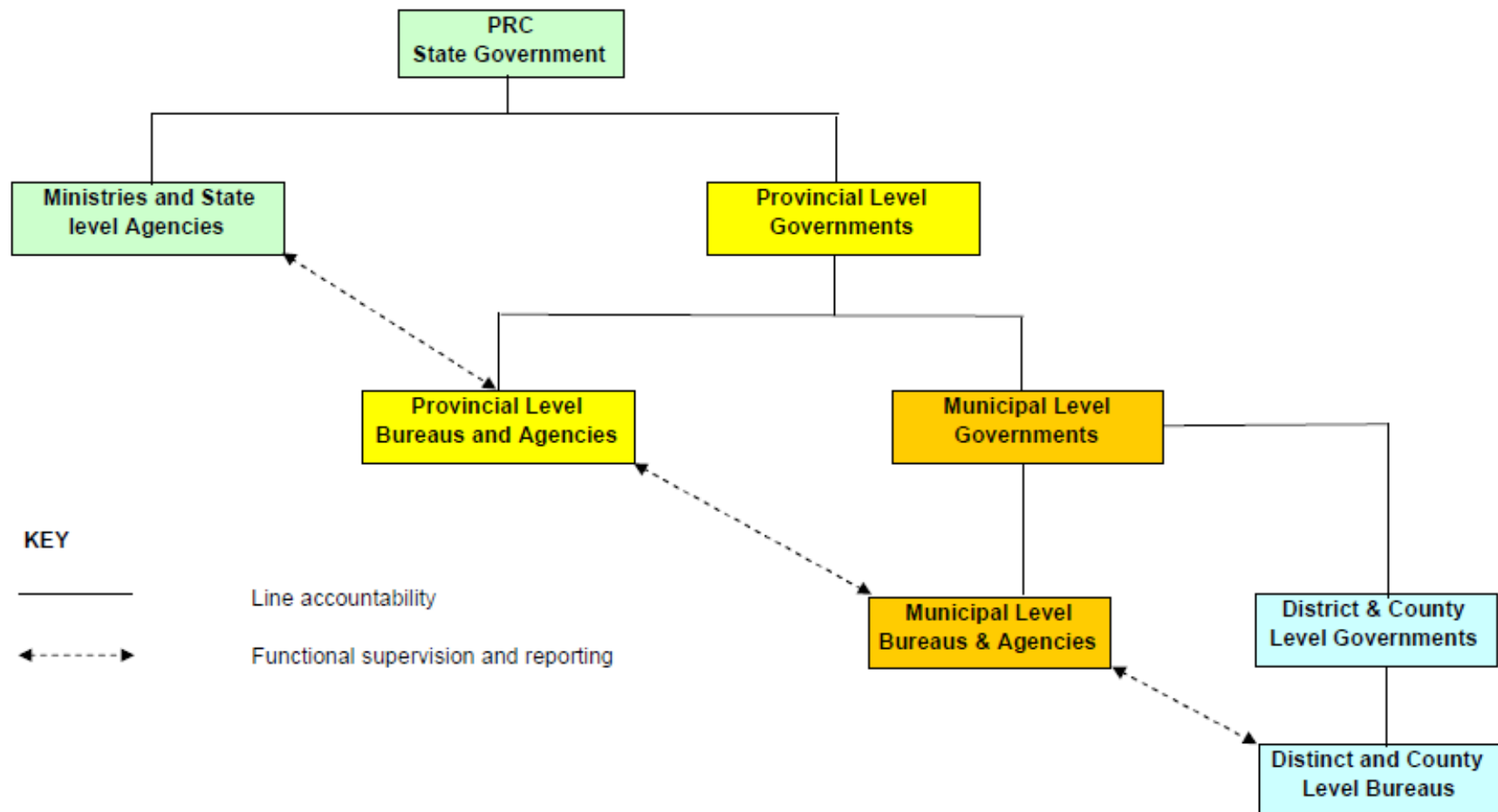
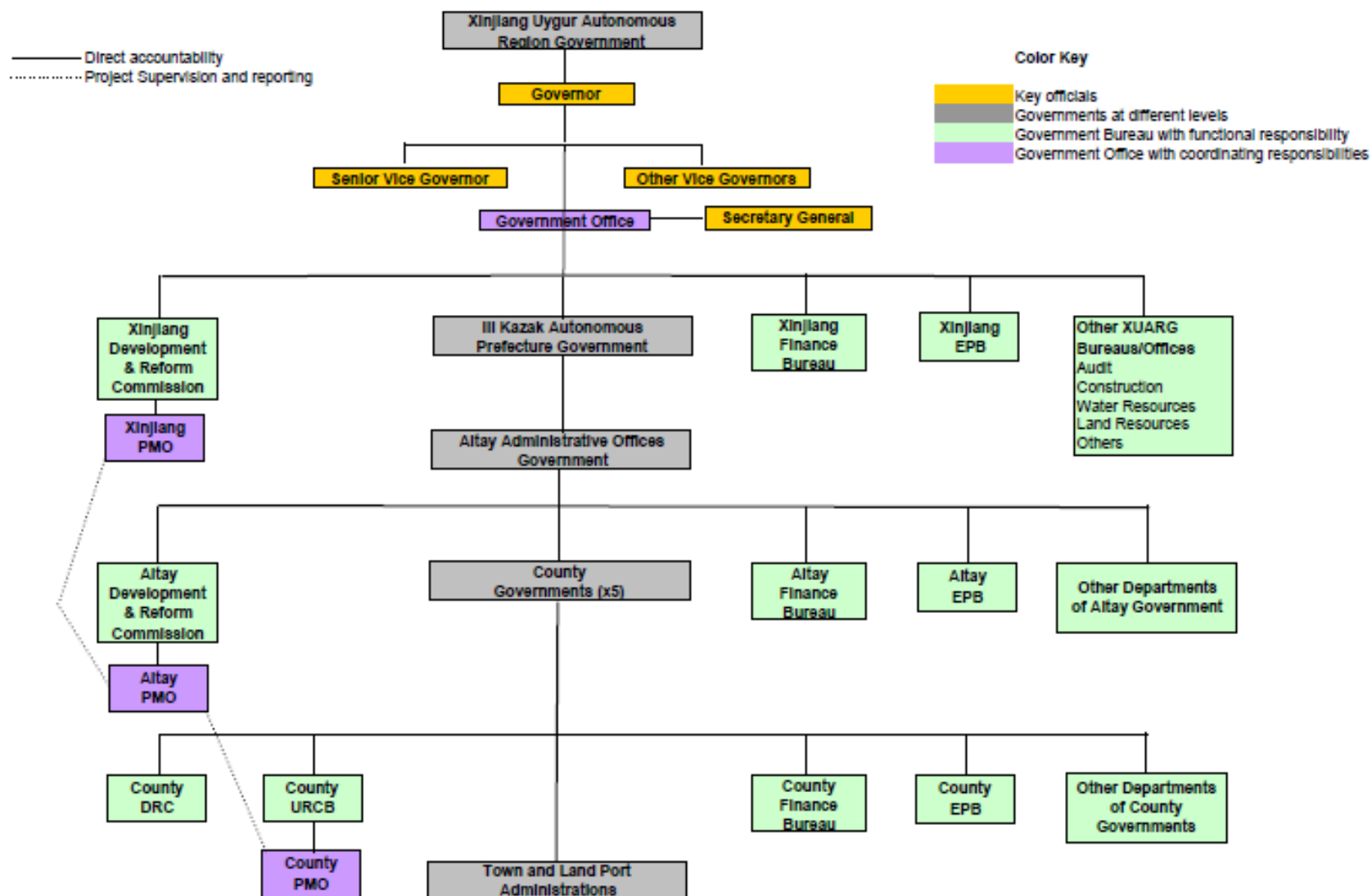


Figure 3 - Local Overview

Figure 3 Overview of Local Institutional Arrangements for the Project



3 Sector analysis and institutional arrangements in Xinjiang

3.1 Overview of Project Related Institutional Arrangements in Xinjiang

XUARG is a provincial level government directly accountable to the State Council of the National PRC Government. The Xinjiang Development and Reform Commission (XDRC) of XUARG has responsibility for overseeing major infrastructure projects carried out in the Region.

The XUARG is divided into 13 main administrative areas, of which Altay Prefecture is one. Altay Prefecture is part of the Ili Kazak Autonomous Area (IKAA), which is a loose association of administrative areas with a high proportion of indigenous Kazak nationality amongst the population and which has its own Government, with a status between that of Prefecture and Region. This is quite unique in China. However, the IKAA government does not exercise a full range of administrative functions and for most matters (including project management) the different agencies of Altay Prefecture Government (APG) are functionally accountable direct to their XUARG equivalents. Altay Prefecture comprises Altay City and six counties, being Buerjin, Fuhai, Fuyun, Habahe, Jimunai, and Qinghe Counties. Five of these six counties, Buerjin, Fuhai, Habahe, Jimunai, and Qinghe, and some key towns and land ports within them, are participating in the Project. **Figure 3** provides an overview of local project related institutional arrangements.

Although XUARG through XPMO will oversee the project preparations and implementation, giving regional level support as needed, it is APG or individual counties who will be primarily responsible for project implementation. Therefore it is appropriate that APG be the assigned executing agency for the Project with Altay Project Management Office (APMO) and the local county project management offices established for the Project managing all the detailed work. This structure for managing single prefecture/municipality projects is well established in the PRC, with other similar recent examples seen in both Guangxi Autonomous Region and in Gansu Province. In this situation it is therefore necessary to focus institutional analysis and assess project management capacity at the Altay Prefecture level, and in the individual counties that will implement the Project.

3.2 Altay Agencies with Specific Project Related Responsibilities

The institutional arrangements relevant to urban development and the provision of urban services in Altay were depicted in Figure 3. The project related responsibilities of some of the more important agencies are briefly described below.

Altay Development and Reform Commission (ADRC): Functionally accountable to XDRC and NDRC, ADRC is responsible for the planning of major investment projects and obtaining project approvals from higher authorities where these are required for all government investment in Altay. ADRC is also the agency that has been assigned by Altay Government to manage the Project and therefore ADRC exercises day to day supervision over Altay PMO. ADRC will therefore be actively involved in all stages of the Project and through Altay PMO will coordinate all project preparation and implementation activity. ADRC will also be the main project link between Altay and the XUARG.

Altay Housing & Urban-Rural Development Bureau (ABOHURD): Functionally accountable to XBOHURD and MOHURD, ABOHURD is responsible to Altay Prefecture Government for overseeing all urban construction. However, its role is essentially a regulatory one and ABOHURD will not be directly involved in construction activity, although it is important as it will exercise functional supervision over the county level construction bureaus. Compliance with design and construction standards, accreditation of design institutes and construction supervision companies all come within the remit of the ABOHURD. It is also closely involved in urban master planning.

Altay Finance Bureau (AFB): Functionally accountable to the Xinjiang Regional Finance Bureau and the Ministry of Finance (MOF), the AFB prepares and administers the overall Altay budget from which at least part of the Project is likely to be financed.

Altay Environmental Protection Bureau (AEPB): Functionally accountable to Xinjiang Environmental Protection Bureau (XEPB) and MOEP, the AEPB is responsible for environmental protection within Altay and is the principal environmental regulator. It has responsibilities that cover air, noise, solid waste and water pollution and has affiliated environmental monitoring stations that operate across Altay. Monitoring includes individual point sources of pollution, especially industrial wastewater sources, and the quality of watercourses (rivers, lakes, etc). AEPB also administers the procedures for environmental impact assessments (EIA) required under Chinese environmental law, and is the local enforcement agency for EIA compliance. AEPB's involvement in the Project will include review of draft EIAs and onward referral of these to XEPB for approval. AEPB will also oversee monitoring and compliance with the project environmental management plans.

The Altay Price Bureau (APB): Functionally accountable to Xinjiang Regional Price Bureau and NDRC, the APB is the Government's local price regulator for those prices which are still under the control of the State. This includes the administration of water supply, wastewater, municipal solid waste and district heating tariffs, although some decisions are delegated to the county governments and county people's committees. Where decisions are delegated, APB undertake a review and "no objection" role to proposed county government decisions to ensure these are in accordance with PRC pricing law and regulations, and policies issued from time to time by the national and XUAR governments.

Altay Project Management Office (APMO) was originally established in 2007 as part of the project management organization for the earlier Xinjiang Municipal Infrastructure & Environment Improvement Project. APMO is accountable to the Altay Project Leading Group, but for administrative purposes is located within ADRC. APMO will be closely involved in the preparatory and implementation phases of the Project, and will coordinate and supervise the activities of the county level PMOs. APMO's previous involvement in ADB projects is likely to prove most valuable and it has acquired knowledge and experience in ADB procurement and safeguard policies, as well as project monitoring and reporting procedures.

3.3 Institutional Arrangements in the Project Counties

Each of the five county governments participating in the Project are directly accountable to APG and have jurisdiction over their designated areas as provided for under the PRC constitution. As indicated in Figure 2 it is normal for each level of PRC government to be organized in a way that closely mirrors higher levels of government, and such an arrangement readily facilitates the functional supervision that is conducted by the more senior levels of government.

Each County government is responsible for the provision of urban services within their counties, with some local service provision further delegated to town/township level. The prime focus of government at this level is on local economic development, infrastructure construction and service provision. The key county government department for the provision of urban infrastructure and services is the county urban construction bureau (UCB), and it is therefore most appropriate that each county government has given the lead project implementation responsibility to their UCB. However, successful implementation of the project components will require a team effort in each county, and the County governments have recognized this and established project structures to facilitate the required inter-agency coordination and high level disputes resolution and decision taking. The institutional arrangements in each county are described in Annexes 2 to 6 of this Appendix. Summary analysis is provided in Section 5 below.

4. Project Management and Implementation Arrangements

The designated executing agency (EA) for the Project is the APG, which also participated as part of the ADB supported Xinjiang Municipal Infrastructure & Environment Improvement Project and Xinjiang Urban Transport & Environment Improvement Project. XUARG and APG therefore propose that Xinjiang Altay Urban Infrastructure and Environment Improvement Project be implemented under similar arrangements to these earlier projects, which provide for continuity, whilst also learning lessons from these earlier implementations, and recognizing that all components of the proposed Project are under the jurisdiction of APG.

4.1 Proposed Implementation Arrangements (Construction Phase)

(a) Leadership and Direction

A Project Leading Group (PLG) has been formally established by XUARG and has been assigned the role of overseeing the preparation and implementation of this new ADB project. A Vice Governor of XUARG leads the PLG. The PLG members, who are listed in Table 1 below, include high level officials from the Xinjiang Finance Bureau, Development and Reform Commission, Housing and Urban-Rural Development Bureau and from Altay.

Table 1: Membership of the Leading Group

XUARG	Party Secretary, Standing Vice Chairman
XUARG	Vice Secretary General
Xinjiang Finance Bureau	Chief
Altay Prefecture Government	Vice Party Secretary, Standing Vice Governor
XUAR DRC	Vice Director
XUAR Finance Bureau & XUAR World Bank Loan PMO	Designated Vice Director
XBOHURD	Chief Economist
Altay Prefecture Government	Vice Governor

The PLG has delegated responsibility for day to day project oversight to the Xinjiang Project Management Office (XPMO), whose composition is contained in Table 2.

Table 2: Membership of Xinjiang PMO

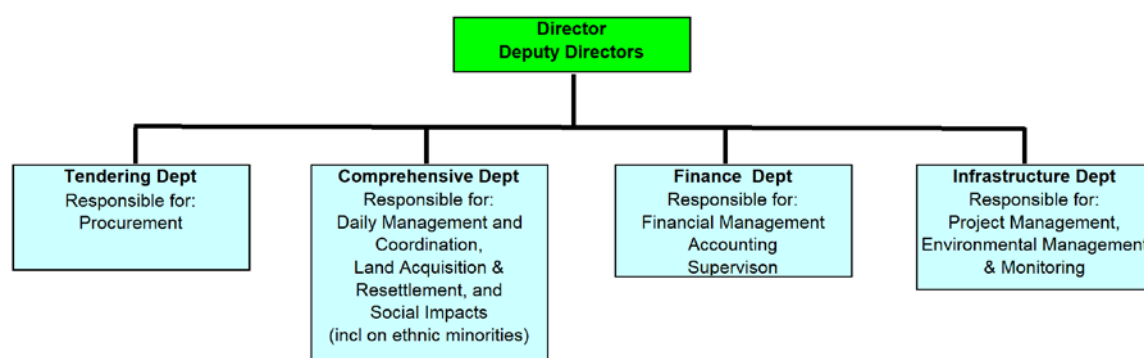
Leader	XUARG	Party Secretary, Standing Vice Chairman
Office Director	XUAR Finance Bureau	Chief
Office Vice Director	XUAR DRC	Vice Director
	XUAR World Bank Loan PMO	Designated Vice Director
Staff	XBOHURD	Division Chief
	XUAR DRC Foreign Fund Office	Vice Division Chief
	XUAR Finance Bureau, Central Asia Division	Vice Division Chief
	XBOHURD	Office Vice Director
	XUAR Finance Bureau, Central Asia Division	Office Vice Director
	XUAR Finance Bureau Central Asia Division	Staff
	XUAR DRC Foreign Fund Division	Staff
	XUAR Housing & Urban-Rural Construction Bureau	Staff
	XUAR Housing & Urban-Rural Construction Bureau	Staff

XPMO is an administrative office under the leadership of the XUAR BOHURD that has successfully implemented several past ADB. XPMO therefore has the capacity and experience to provide guidance and support to APG and APMO and will potentially play an important oversight role in project implementation.

(b) Responsibility for Project Preparations

XUARG has delegated the main project preparatory work to APG, who will assume the role of project Executing Agency. APG has established its own PLG for overseeing the Project's preparations and physical construction phase. Membership of the Altay PLG is provided in **Annex 1** to this Appendix. APG has also established Altay PMO which is similarly constituted to XPMO and under the supervision of ADRC. The organization of APMO is shown in **Figure 4**, with staffing numbers in each of the functional units varying from time to time according to needs. Further details of the membership of APMO are also provided in Annex 1. . In turn, each of the five participating project counties has established their own PLG and PMO to provide leadership and project management at the County level and coordinate project preparation and implementation at the County level. Detailed arrangements for each county are documented in **Annexes 2 to 6**.

Figure 4: Altay PMO Organisation



(c) Responsibility for Project Implementation

Most detailed project implementation activity will be undertaken at the local County level with XPMO and APMO providing overall direction, and detailed coordination and support respectively. As previously stated each County has assigned their county Urban Construction Bureau (UCB) to manage the construction phase of the Project within their area of jurisdiction and each local UCB will undertake the role of project implementing agency on behalf of the County Government. Each county PMO will therefore operate under the day to day supervision of the county UCB, whilst being accountable to the county PLG and county government. A typical county project management arrangement based on that found in Buerjin County is set out below. **Annexes 3 to 6** include the arrangements in each of the other counties.

(d) Project Financing

It is proposed the ADB loan be on-lent from the PRC Government to XUARG, to Altay and thence to the five participating counties. It is not proposed that the loan be further on-lent to the different agencies who will later assume responsibility for the operation and maintenance of the project facilities on behalf of the local governments, but instead the facilities will remain in the ownership of the IAs (i.e. the county governments).

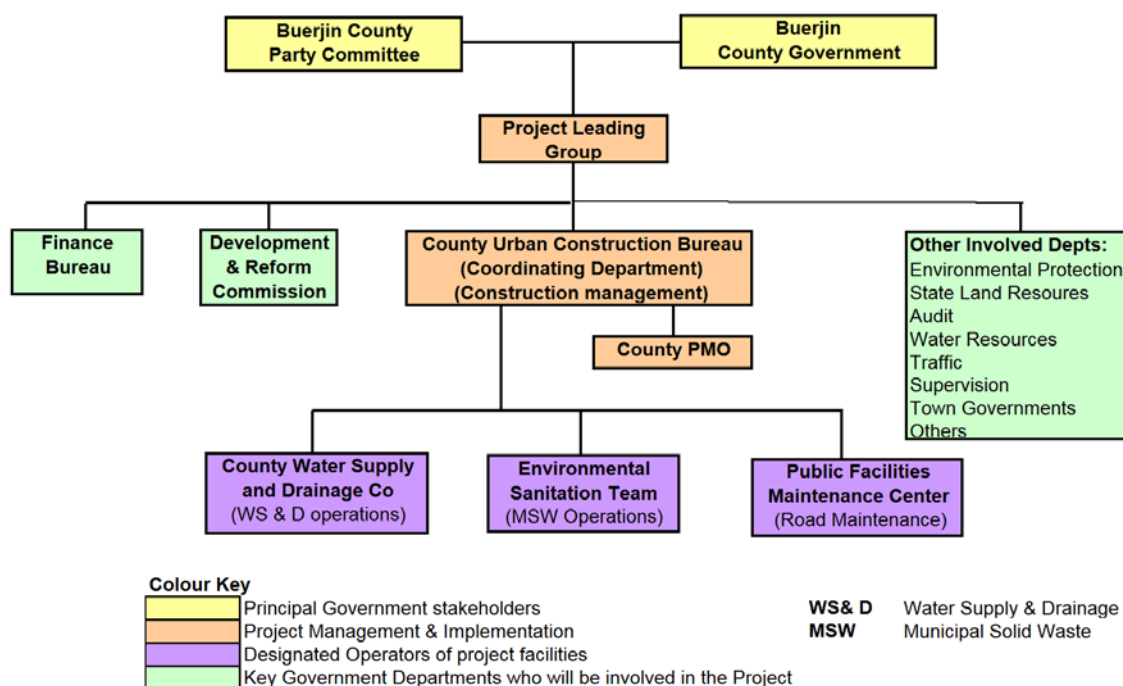
(e) Implementation Support

Local County Urban Construction Bureau will engage a number of specialist institutes to support them in their implementation tasks and which will include local design institutes, construction management companies and construction supervision companies.

In addition it is envisaged that loan implementation consultants, environmental institutes (for EIA preparation and for monitoring the environmental management plan), resettlement agencies (for implementing the resettlement plans and for independent monitoring of land acquisition and resettlement activity) and tendering companies to support the procurement

process will be appointed and provide necessary support to the IAs and PMOs at all levels of the project management organization.

Project Organisation in Buerjin County



4.2 Proposed Operation and Maintenance Arrangements

Each county government has designated local agencies to be responsible for the operation and maintenance (O&M) of the facilities of each individual project sub-component. The designated agencies include existing and newly formed state-owned enterprises (SOE), public institutions (PI) and two private enterprises (PE). Table 3 below identifies the agency nominated to assume the O&M responsibility for each sub-component of the Project and also identifies the current institutional status of the individual agencies. Of the SOEs only the Jimunai County Jiyun Municipal Construction Company is being specifically established for the purpose of project implementation and the others are existing SOEs already responsible for the relevant county services.

Table 3: Summary of Proposed Project O&M Arrangements

Component	Sub-component	Operation and Maintenance unit	Type of Unit
Buerjin	Road	Buerjin County Public Facilities Maintenance Center	PI
	Water supply	Buerjin County Jincheng Water Supply and Wastewater Company	SOE
	Wastewater	Buerjin County Jincheng Water Supply and Wastewater Company	SOE
	Solid Waste	Buerjin County Environmental Sanitation Team	PI
Fuhai	Road	Fuhai County Wastewater Treatment Station	PI
	Wastewater	Fuhai County Wastewater Treatment Station	PI
	Solid waste	Fuhai County Environmental Sanitation Team	PI
	Heating	Fuhai County Zhongsheng Heating	PE
Habahe	Road	Akeqi Town Urban Construction Maintenance Center	PI
	Wastewater	Habahe County Tap Water Company	SOE
	Solid waste	Akeqi Town Urban Construction Maintenance Center	PI
	Heating	Habahe County Tianye Heating Supply Center	PE
	Water Supply	Habahe County Tap Water Company	SOE
Jimunai	Tourist Area WS and Drainage	Habahe County Tap Water Company	SOE
	Road	Jimunai County Jiyun Municipal Construction Company	SOE
	Water supply	Jimunai County Jiyun Municipal Construction Company	SOE

	Wastewater	Jimunai County Jiyun Municipal Construction Company	SOE	
	Solid waste	Tuoputiereke town environment & sanitation team	PI	
	Heating	Jimunai County Jiyun Municipal Construction Company	SOE	
Qinghe	County seat	Water supply	Qinghe County Fuyuan Water Supply and Drainage Company Limited	SOE
		Wastewater	Qinghe County Fuyuan Water Supply and Drainage Company Limited	SOE
		Solid waste	Qinghe County Environmental Sanitation Team	PI
		Heating	Qinghe County Ankang Heating Company Limited	SOE
	Takeshiken Land Port	Road	Qinghe County Environmental Sanitation Team	PI
		Water supply	Qinghe County Fuyuan Water Supply and Drainage Company Limited	SOE
		Wastewater	Qinghe County Fuyuan Water Supply and Drainage Company Limited	SOE

4.3 Summary of Proposed Arrangements

The proposed project implementation arrangements are similar to those adopted by most ADB projects in the PRC and are therefore well proven. They are compatible with the hierarchical structure of government in the PRC and are understood to be similar to those used for the earlier ADB financed urban development projects in XUAR. The main difference in the implementation arrangements from other the majority of other similar projects is that responsibility for infrastructure construction has been separated from the O&M responsibility. The reason for this is that the existing O&M units currently have little or no infrastructure construction experience or capacity and are therefore not well-equipped to undertake the physical construction of the project assets.

It is therefore proposed that the local UCB in each county assumes the responsibility for the required infrastructure construction. This is the arrangement that has traditionally operated for the construction of domestically financed urban infrastructure and will make best use of the limited technical capacity that exists in these small counties.

In order to ensure that O&M considerations are properly taken into account in the project design, each O&M agency is involved in the project preparations and the specification of the required infrastructure. It is proposed they will be similarly involved in detailed design review.

With one or two exceptions, the choice of nominated O&M units is generally the agency that is currently responsible for the provision of the relevant urban service and thus gives both continuity and utilizes existing capacity. The exceptions to this arrangement are discussed in detail in section 5 below.

5. Analysis of Proposed Implementation Arrangements

5.1 Design and Construction Phase Implementation

5.1.1 Project Management Arrangements

As stated in paragraph 4.3, the proposed implementation arrangements for the Project are similar to those of previous projects, except that the local county UCBs will manage the construction phase of all the sub-components and not the agencies who will eventually assume responsibility for O&M. This proposed arrangement undoubtedly makes best use of existing urban construction experience and capacity in each county. In addition having one single experienced agency per county involved in managing the construction phase there is reduced governance and possible corruption risk as each UCB already has established governance and anti-corruption procedures.

In addition, most of the nominated O&M units are functionally aligned and/or directly supervised by the UCB. This gives the UCB a natural incentive to ensure the operability of constructed infrastructure and also makes it easy for O&M unit staff to become involved in

project preparations and design review activities as the need arises. This could be on either a formal (seconded to PMO) or informal (consultative/advisory) basis.

Discussions with county government officials indicate that there is strong support for the Project and this has also been confirmed in broader stakeholder consultations and the PPTA socio-economic survey. All county UCBs can cite extensive past experience in urban infrastructure, although mostly domestically funded and not necessarily in the type of facilities being constructed under the Project. In particular, capacity and past experience in the construction of sanitary landfills and wastewater treatment facilities is limited, although the risks created by this lack of capacity can be mitigated by the appointment of suitably experienced DIs and construction supervision companies. This will be important. Similarly, the lack of experience in ADB and other foreign funded projects can be mitigated through the use of suitably experienced tendering companies and the provision of consulting services to support project implementation.

Projects can encounter delays and implementation delays for a number of reasons. Strong and effective institutional arrangements for project implementation can help reduce the risk of delay – especially if the institutional arrangements facilitate the resolution of implementation issues. Whilst personalities and the leadership ability of key officials will be very important (and is not easy to analyze in an objective way) the political status and composition of the project management organization has also been shown to be a critical factor when major implementation difficulties arise.

At the XUARG level the composition of the PLG is quite narrow and neither the Xinjiang EPB nor the Xinjiang State Land Resources Bureau (both of which may be needed to resolve EIA or land acquisition issues respectively).

At the Altay and County level there are typically much larger PLGs established with broader representation. Tables 4 and 5 below document and compare the status and composition of individual PLGs and PMOs within APG and the Counties.

Table 4: Summary of PLG Composition at APG and County Level

Composition	Buerjin	Fuhai	Habahe	Jimunai	Qinghe	Altay
DRC	Yes	Yes	Yes	Yes	Yes	Yes
Construction	Yes	Yes	Yes	Yes	Yes	Yes
Finance	Yes	Yes	Yes	Yes	Yes	Yes
EPB	Yes	Yes	Yes	Yes	Yes	Yes
Land Resources	Yes	Yes	Yes	Yes	Yes	Yes
Water Resources	Yes	Yes	Yes	Yes	Yes	Yes
Traffic	Yes	Yes	Yes	Yes	Yes	Yes
Agriculture	Yes	Yes	Yes	Yes	Yes	Yes
Audit	Yes	Yes	Yes	Yes	Yes	Yes
Forestry	Yes	Yes	Yes	Yes	Yes	Yes
Civil Affairs	Yes	No	No	No	No	No
Ethnic & Religious Affairs	Yes	No	No	No	No	Yes
Relevant Townships	Yes	Yes	No	Yes	Yes	No
Others*	Yes	Yes	Yes	No	Yes	Yes
Status of PLG leader	VCPC	VCPC	VCPC	VCPC	SVCM	SVG

Key to abbreviations: VCPC – Vice Chief of Party Committee
SVCM – Standing Vice County Magistrate
SVG – Standing Vice Governor

*It appears from the composition of some county PLGs that these operate as a leading group with responsibility for steering all major projects, whereas in other counties the membership seems more tailored to the needs of the XAUIEIP.

In each case the political status of the PLG head seems adequate to resolve inter-departmental and cross functional issues.

Specific points of note in respect of PLG composition include:

- Altay PLG does not include representation from the Counties and Habahe PLG does not include township representation.
- Otherwise all PLGs include representation of all key government stakeholders that need to be actively involved in implementation.

Table 5: Analysis of PMO Composition and Involvement

Leader Involvement	Buerjin	Fuhai	Habahe	Jimunai	Qinghe	Altay
Party Committee	Yes	Yes	Yes	Yes	Yes	Yes
Government	Yes	Yes	Yes	Yes	Yes	Yes
DRC	Yes	Yes	Yes	Yes	Yes	Yes
Construction	Yes	Yes	Yes	Yes	Yes	Yes
Finance	Yes	Yes	Yes	Yes	Yes	No
EPB	No	No	No	No	No	No
Tourism	No	No	Yes	No	No	No
Forestry	No	No	Yes	No	No	No
Township Government	No	No	No	No	Yes	No
Staff Involvement						
Construction	Yes(2)	Yes(3)	Yes(2_)	Yes(2_)	Yes(1)	Yes(1)
DRC	Yes(1)	Yes(1)	Yes(1)	Yes(1)	Yes(2)	Yes(3)
Finance	Yes(1)	Yes(1)	Yes (1)	Yes (1)	Yes(1)	Yes(2)
EPB	No	No	Yes (1)	No	No	No
Forestry	No	No	Yes (1)	No	No	No
Land Resources	No	No	No	Yes (1)	No	No
Township Government	No	No	No	No	Yes(1)	-
Total Staff*	4	5	6	5	5	6

Note: Number of active staff excluding leader representation

Specific points of note in respect of PMO composition and their supervision include:

- Altay PMO operates under the day to day supervision of ADRC, whilst each County PMO is under UCB supervision.
- The main PMO involvement is by the UCB, DRC and Finance Bureau in each county.
- The individual PMOs have similar staffing strength and all are under the day to day supervision of the county UCB as the department assigned by the County Government for managing project implementation.
- Only Qinghe has involved township level within the formal PMO structure.
- Only Jimunai has active involvement of the Land Resources Bureau within the formal PMO structure.
- Only Habahe has active involvement of the EPB within the formal PMO structure.
- Habahe PMO composition needs to be somewhat different in view of the nature of the White Birch eco-tourism sub-component.

5.1.2 Urban Construction Bureau Capacity

As the County UCBs will act as project implementation agencies during the construction phase of the Project it is important that these have adequate staffing in terms of staff numbers and technical capacity. Tables 6 and 7 below analyze UCB staffing at the county level in terms of functional skills and staff education level respectively.

Table 6: Functional Analysis of County UCB Staffing

Function	Buerjin	Fuhai	Habahe	Jimunai	Qinghe
Managers	4	8	16	10	6
Technical	5	20	29	25	33
Finance	1	3	2	2	2

Others	11	62	10	2	5
Total	21	93	57	39	46

Table 7: Analysis of the Education Level of County UCB Staff.

Education Level	Buerjin	Fuhai	Habahe	Jimunai	Qinghe
Post Graduate	0	0	0	0	0
Graduates	9	10	10	19	4
Technically Qualified	12	0	45	16	37
High School	0	65	2	3	5
Lower levels	0	18	0	1	0
Total	21	93	57	39	46

The immediate conclusions from this analysis are that the Buerjin is a much smaller and more streamlined organization than the other UCBs. In contrast Fuhai UCB is much larger and with a predominance of staff from lower education levels relative to the other UCBs.

Discussions held with PMO representatives reveal the following:

- More activities in Buerjin are delegated to subsidiary units under BUCB overall supervision. This includes urban planning work which in other counties is a mainstream UCB activity.
- In addition the Fuhai UCB directly undertakes activities in relation to the maintenance of green space and monitoring and inspection tasks that the other county UCB delegates to subsidiary units.

When one takes account of these differences the UCB staffing numbers become more consistent, although Buerjin still appears somewhat more streamlined. A representative of BUCB has explained that they will involve their subsidiary units, for example the water and drainage company to the maximum extent possible during the implementation phase to both boost implementation resources and also ensure O&M issues are considered.

All County UCB believe they have adequate staffing resources to undertake their role of project IA. They base this judgment on past experience in the implementation of local urban infrastructure.

5.2 Operations Phase

5.2.1 Introduction

As identified in Table 3 in Section 4.2 above, the County Governments participating in the Project have nominated, for each sub-component, a relevant local agency to assume the responsibility for future the operation and maintenance (O&M) of the project facilities. Fuller details of these individual O&M agencies are provided in Annexes 2 to 6 of this Appendix. This section summarizes the findings of the institutional analysis and due diligence that has been conducted during the PPTA.

In most cases the project facilities are a natural upgrading or extension of existing urban infrastructure and therefore it is logical that O&M responsibilities for the project facilities are assigned to the agencies currently responsible for the relevant services. This gives continuity, makes best use of existing capacity and avoids O&M responsibilities being unnecessarily fragmented. Most County Government nominations of project O&M units have followed these principles. Exceptions are discussed in paragraph 5.2.3 below.

PPTA analysis of the proposed O&M arrangements has focused on the following aspects:

- The suitability of proposed arrangements (paragraph 5.2.3)
- Institutional due diligence of nominated O&M units (paragraph 5.2.4)
- Existing O&M capacity and impact of the Project (paragraph 5.2.5)

- Capacity building needs of O&M units (section 6.5)

5.2.2 Current Arrangements for the Provision of Urban Services

Urban services in the project counties are currently provided by a mix of government departments, public institutions, SOEs and private enterprises. Institutional and corporate governance arrangements therefore depend on the type of institution providing the O&M service.

Currently for the services being improved under the Project:

- Municipal solid waste, road maintenance and some drainage services are provided by public institutions
- Water supply, together with some drainage and heating services are provided by SOEs; and
- Some heating services are provided by private enterprises (in Fuhai and Habahe).

5.2.3 Suitability of Nominated O&M Units

(a) Buerjin County

The proposed O&M units are as follows:

Water Supply – Buerjin County Jincheng Water Supply and Drainage Company (BWSDC)

Drainage – Buerjin County Jincheng Water Supply and Drainage Company

Solid Waste – Buerjin County Environment and Sanitation Team (BEST)

Roads – Buerjin County Public Facilities Maintenance Center (BPFMC)

The proposed O&M arrangements appear logical and make maximum use of existing institutional experience and capacity.

(b) Fuhai County

The proposed O&M units are as follows:

Heating – Fuhai County Zhongsheng Co., Ltd (FZC)

Drainage – Fuhai County Wastewater Treatment Station (FWTS)

Solid Waste – Fuhai County Environment and Sanitation Team (FEST)

Roads – Fuhai County Wastewater Treatment Station

The first three nominations appear logical and make maximum use of existing institutional experience and capacity. The final nomination requires further explanation. Currently in Fuhai there is no separate roads maintenance team (as exists in most other counties) and there is no plan to create such a separate team. The TA Consultant is advised that road maintenance is carried out on an as needed basis and that one staff of the Wastewater Treatment Station is responsible for this work. All actual work required is contracted out or assigned to individual part time workers who perform such tasks on a regular basis.

The FWTS registration document confirms road maintenance as a responsibility of the Organization.

(c) Habahe County

The proposed O&M units are as follows:

Heating – Habahe County Tianye Heating Supply Center (HTHSC)

Water Supply – Habahe Tap-water Company (HTWC)

Drainage – Habahe Tap-water Company

Water Supply & Drainage for White Birch Forest Tourist Area – Habahe Tap-water Company
 Solid Waste – Akeqi Town Urban Construction Maintenance Center (ATUCMC)
 Roads – Akeqi Town Urban Construction Maintenance Center

The proposed O&M arrangements appear logical and make maximum use of existing institutional experience and capacity. Akeqi Town is the main urban centre of Habahe County and ATUCMC has a county wide brief for urban construction maintenance.

The urban area of the Habahe county seat is divided into two central heating zones, serving the south and north of the city. Services in these zones are provided by an SOE and HTHSC (a private enterprise) respectively. As all project works are in the north zone, HTHSC is the nominated O&M unit.

(d) Jimunai County

The proposed O&M units are as follows:

Water Supply – Jimunai County Jiyun Municipal Construction Co., Ltd (JJMC)
 Drainage – Jimunai County Jiyun Municipal Construction Co., Ltd
 Roads – Jimunai County Jiyun Municipal Construction Co., Ltd
 Heating – Jimunai County Jiyun Municipal Construction Co., Ltd
 Solid Waste – Jimunai County Tuoputiereke Town Environment and Sanitation Team (JTEST)

JJMC is a newly created SOE (in June 2010) with no previous experience of urban services O&M. Jimunai County Government has formed it to assume responsibility for most urban management services in the County and staff currently employed on urban services O&M activities will be transferred to the new Company. JJMC is established as a “legal person” form of company with a business license and a Board of Directors. It will operate under the functional supervision of JUCB. The transition arrangement for JJMC becoming fully operational is outlined in paragraph 5.2.5 (d) below.

JTEST is the logical choice to assume O&M responsibility for the MSW sub-component, as Tuoputiereke Town is the main urban centre of Jimunai County, and the town government is responsible for the MSW service. JTEST is a registered public institution, under the direct jurisdiction of the town government.

(e) Qinghe County

The proposed O&M units are as follows:

County Water Supply – Qinghe County Fuyuan Water Supply and Drainage Company Limited
 County Drainage – Qinghe County Fuyuan Water Supply and Drainage Company Limited
 Takeshiken Town – Water Supply – As for county water supply (QFWSDC)
 Takeshiken Town – Drainage – As for county drainage
 Centralized Heating – Qinghe County Ankang Heating Company Limited (QAHC)
 Solid Waste – Qinghe County Environment and Sanitation Team (QEST)
 Takeshiken Town-Road – Qinghe County Environment and Sanitation Team

The first six nominations appear logical and make maximum use of existing institutional experience and capacity. The final nomination requires further explanation.

- Currently there is no dedicated road maintenance team in Qinghe County and QEST is also responsible for road maintenance at the county seat. However, its scope of business only refers to environmental sanitation work.
- Road maintenance in Takeshiken Town (Land Port) is undertaken by the local town government, but financed by the County.

- The IA considers that Takeshiken Town does not have the capacity to undertake the increased road maintenance activity once the road sub-component is completed and therefore it is proposed that a sub-unit of QEST be located in Takeshiken for this function. Required road maintenance equipment is being included in the Project.

This explanation seems plausible, but it appears that QEST should at least be renamed and its formal business scope in its registration document modified to recognize its broader urban maintenance role. However, QEST's capacity for assuming responsibility for road maintenance also looks suspect – a matter discussed in paragraph 5.2.5 (e) below.

5.2.4 Institutional due Diligence of Nominated O&M units

(a) Buerjin County

- All three units are properly registered with the appropriate Government departments.
- Although BJWSDC is a newly established company (formed in March 2009) it does not have a Board of Directors and operates under traditional SOE governance arrangements.
- No role duplication that could lead to conflicts of interest has been identified.
- All three units are subject to government supervision and audit.

(b) Fuhai County

- All three units are properly registered with the appropriate Government departments.
- No role duplication that could lead to conflicts of interest has been identified.
- FEST and FWTS are public institutions properly registered with the appropriate department of Fuhai County Government. Both are subject to government financial supervision and audit and are financed via government budgetary allocation.
- FZC (the Heating Company) is a private enterprise formed by two individual investors. It purchased the heating facilities of Fuhai County from the County Government under an agreement signed in November 2004 and assumed responsibility for the heating service in March 2005. The Company appears to be well staffed with adequate technical capacity. The IA has advised the PPTA team that documentation to confirm the transfer of government assets to FZC was properly authorized, and have given us brief sight of the written agreement between FZC and Fuhai County
- The TA Consultant has been given to understand that a Fuhai SOE whose management negotiated a buy out to take the Company into private ownership formerly provided the Fuhai heating service. It is thought there was no market testing of the arrangement. The contract is open-ended but does spell out the responsibilities and obligations on each party – with FZC being responsible for guaranteeing the supply of heat and bearing related risks. This raises the question “Why is Fuhai County (with ADB support) now investing in upgrading the heating infrastructure?” As it seems that FZC should make this investment itself. This question has been put – but no satisfactory response received.

(c) Habahe County

- Habahe Tap Water Company (HTWC) is a registered SOE formed in 1990 that operates as a traditional PRC water company without a Board of Directors under the supervision of Habahe UCB. It is also subject to government audit.
- Akeqi Urban Construction Maintenance Centre is a registered public institution formed in 1995. It is also under the supervision of Habahe UCB and operates under government accounting, budgetary and audit arrangements.
- Habahe Tianye Heating Supply Centre (HTHSC) is a private enterprise formed in 2004 with three individuals as its investors. The lead investor is also the General Manager. There appears to be no Board of Directors. The TA Consultant has requested, but has not yet been provided information on the contractual relationship between HTHSC and Habahe County Government, nor anything definitive on the

ownership of heating system assets in the HTHSC service zone. However, the TA Consultant is given to understand the assets remain in government ownership and HTHSC just has operating rights.

(d) Jimunai County

- Jimunai County Jiyun Municipal Construction Co., Ltd (JJMC) is a newly formed company in June 2010. It is assumed to be an SOE, but no ownership details have been provided. The Company is registered with a business license but the paid up capital is only CNY0.1 million (\$15,000) and no staffing details have been provided to the TA Consultant. This suggests it is not yet operational. The licensed business scope is simply stated as “municipal public facilities maintenance”. JJMC has a three person Board of Directors, but no information has been provided on who they represent.
- Jimunai Tuopuretieke Environmental Sanitation Team is a registered public institution supervised by the Tuopuretieke Town Government. It operates under a regime of government accounting, audit and budgetary control.

(e) Qinghe County

- QFWSDC (water supply and drainage O&M) and QAHC (heating supply O&M) are both SOE (wholly owned) formed in March 2007 and September 2009 respectively. Both companies have a functioning Board of Directors with executive and non-executive membership, appear adequately capitalized, have comprehensive internal regulations, adopt enterprise accounting and are subject to government audit.
- QEST is a public institution supervised by the People’s Government of Qinghe Town, no registration details have been provided. The business scope of QEST is stated as being restricted to environmental sanitation with no reference to road maintenance.

5.2.5 Existing O&M capacity and impact of the Project

(a) Buerjin County

Current staffing of the three designated O&M units in Buerjin County is shown in Table 8.

Table 8: Current Staffing of O&M Units in Buerjin County

O&M Unit	Managers	Technical Staff	Financial Staff	Other Staff	Total Staff	Permanent	Temporary
BJWSDC	2	8	2	5	17	17	0
BEST	3	16	1	87	107	107	0
BPFMC	2	6	2	2	12	12	0

The main impact of the Project on the O&M units will be to:

- Increase the length of roads to be maintained by some 50% and upgrade other roads
- Provide new modern WTP and WWTP that will need to be operated and maintained
- Provide a new sanitary MSW landfill

Road maintenance is currently outsourced on an as needed basis to either temporary individual workers or local contractors, depending on the nature of the required work. The BPFMC road maintenance role is therefore largely one of planning, procurement and contract management. This arrangement is said to be flexible and works well at the present time, however it needs to be kept under review as the length of road and traffic volumes increase.

Detailed future staffing plans for each sub-component have not yet been drawn up. BJWSDC is expected to require only a modest increase in staffing. It is estimated in the FSR that the MSW landfill operation will require 16 new staff; however some redeployment may be possible as the mechanization of MSW operations increases efficiency.

Up skilling in WTP, WWTP and landfill operations will clearly be needed.

(b) Fuhai County

Current staffing of the three designated O&M units in Fuhai County is shown in Table 9

Table 9: Current Staffing of O&M Units in Fuhai County

O&M Unit	Managers	Technical Staff	Financial Staff	Other Staff	Total Staff	Permanent	Temporary
FZC	6	27	2	19	54	42	12
FEST	3	0	2	65	70	23	47
FWTS	2	0	2	6	10	10	0

The main impact of the Project on the O&M units will be to:

- Increase the length of roads to be maintained by some 15% and upgrade other roads
- Provide new modern WWTP that will need to be operated and maintained, together with an expanded wastewater collection network
- Provide a new sanitary MSW landfill, four 5t garbage compaction vehicles, 70 number of new garbage stations and over 400 number of new garbage containers, all of which will need to operated/maintained
- Rehabilitate failing parts of the heating pipework network by provision of new pipework (length approximately 2.9 km).

It appears that FZC already has adequate, staffing, technical and managerial capacity for the O&M of the heating sub-component. Indeed the rehabilitation should reduce the pipework failure rate.

In contrast it is very apparent that both FEST and FWTS currently lack the required technical capacity to undertake the required O&M responsibilities for the components they have been nominated for. Both these units will need to recruit additional technical staff, and although it is understood FEST hope to maximize up skilling and redeployment, the viability of this looks doubtful given the current low technical skills base. The reliance of FEST on temporary staffing is something of a concern and the reason given was much work is seasonal in nature. However, this does not seem to apply in the other counties.

(c) Habahe County

Current staffing of the three designated O&M units in Habahe County is shown in Table 10.

Table 10: Current Staffing of O&M Units in Habahe County

O&M Unit	Managers	Technical Staff	Financial Staff	Other Staff	Total Staff	Permanent	Temporary
HTHSC	3	9	2	10	24	24	0
HTWC	2	17	2	0	21	21	0
ATUCMC	4	8	3	90	105	105	0

The main impact of the Project on the O&M units will be to:

- Increase the length of roads to be maintained by some 30% and upgrade other roads
- Provide a new modern WWTP (8,000 m³/day) and 15.66 km of new wastewater pipelines that will need to be operated and maintained
- Expand the water distribution network by 5.62 km to facilitate utilization of the newly expanded WTP (expansion currently ongoing and separately funded)
- Provide a new sanitary MSW landfill, two 5t garbage compaction vehicles, 60 number of new garbage stations and 360 number of new garbage containers. All of which will need to operated/maintained

- Provide 5 number of heat exchange stations and 2.461 km of heating pipework in the north heating area. Separately, during 2010, the heating boilers are being upgraded using local funding
- Provide a small 90 t/d WTP and associated pipework and drainage facilities to serve the White Birch scenic area.

Currently only 11 of ATUCMC staff are assigned to road maintenance, greening and street lighting management duties. There also appears to be inadequate mechanized equipment and over-reliance on manual methods of road maintenance.

The FSR estimates that ATUCMC's environmental sanitation team will need extra 16 staff to operate the new landfill.

The WTP currently lacks adequate laboratory facilities, and technical training is required in WTP management and operating rules.

The new WWTP will require a modest increase in staffing and up skilling of WWTP operators and maintenance staff.

The IA has indicated a detailed review of O&M staffing needs in each of the relevant government units will be conducted in advance of the operations phase.

The IA has further indicated that the local government is broadly satisfied with the service provided by HTHSC and that existing service deficiencies are caused by poor infrastructure beyond the Company's control. However, this would need to be confirmed by sight of the contact between the County and HTHSC. What is clear is that the impact of the Project will increase HTHSC's volume of business and hence potentially its profitability. This suggests a review and possible re-negotiation of the contract is appropriate.

(d) Jimunai County

Current staffing of the two designated O&M units in Jimunai County is shown in table 11.

Table 11: Current Staffing of O&M Units in Jimunai County

O&M Unit	Managers	Technical Staff	Financial Staff	Other Staff	Total Staff	Permanent	Temporary
JJMC*	3				3	3	
JTEST	16	2	0	38	56	14	42

* A newly created company with only a skeleton staff at present

However, JJMC is a newly created enterprise company and is not currently involved in the O&M activities. The intention of Jimunai County Government is to provide the majority of urban management services through the new JJMC, by progressively developing the Company through merger with existing O&M units and organic growth. An initial staffing plan has been prepared which estimates a staffing requirement of 110 staff will be needed.

Currently urban services in Jimunai are provided as follows:

Water Supply and Heating – Jimunai County Water and Heating Co (JW&HC)
 Road Maintenance – the road maintenance and street lighting team under the JUCB
 Wastewater – JUCB
 Municipal Solid Waste – JTEST

JJMC is take over all these service responsibilities except for MSW, which will remain with JTEST under the supervision of Tuopuretieke Town Government, the other services being under the direct jurisdiction of Jimunai County.

JW&HC is a private company that provides Jimunai's water and central heating services through a form of leasing contract. It is understood the water and heating infrastructure assets are owned by the County government but JW&HC has operating rights, charges for the services it provides and retains any profit. The Company's levels of service have been criticized locally and the County government therefore proposes to terminate the leasing arrangement. It is proposed the JW&HC staff will be largely transferred to JJMC giving continuity in the O&M arrangements. Discussions between the County Government and JW&HC to implement the new arrangement have commenced. JW&HC currently has 37 employees, 15 of which have relevant permits for heating operations and maintenance.

A unit established as a public institution under the direct jurisdiction of JUCB currently carries out road maintenance, together with street lighting. This unit will be transferred in its entirety to JJMC. There is 57 staff currently engaged on road maintenance and street lighting. The transfer is envisaged to be straight-forward.

Currently wastewater O&M is limited to reactive sewer maintenance. There are no staff permanently assigned to this work and JUCB assigns work as the need arises and depending on what needs to be done. It is planned that a wastewater unit within JJMC will be established to assume responsibility for future WWTP and wastewater network O&M. The planned staffing of JJMC provides for this.

The main impact of the Project on the O&M units will be to:

- Upgrade approximately 33% of existing roads and provide some mechanized maintenance equipment
- Replace all existing main water supply pipelines in the county seat
- Provide a new WWTP (5,000 m³/d) and 21.8 km of new wastewater collection pipework
- Provide a new sanitary MSW landfill, three 5 t garbage compaction vehicles, 60 number of new garbage stations and 360 number of new garbage containers. All of which will need to be operated/maintained
- Provide one new heating boiler house, eight heat exchange stations and 4.25 km of heating pipeline.

The capacity building required can be summarized as follows:

- There are no additional water supply staff needed as the new network replaces the old and should require less maintenance. However, although not part of the project, the WTP currently lacks adequate laboratory facilities, and technical training is required in WTP management and operating rules.
- Creation of a wastewater unit in JJMC will require the appointment of suitable staff and significant training in operations and plant maintenance.
- Some additional staffing for heating system will be needed due to the expansion of the service and infrastructure. Technical certification training will be needed.
- The FSR estimates that an extra 16 staff will be needed to operate the new MSW landfill, but the JUCB thinks this number is somewhat overstated. They believe current JTEST numbers are adequate for post project O&M due to increased mechanization and efficiency – however up skilling training programs will be needed and staffing levels will be kept under review.

(e) Qinghe County

Current staffing of the three designated O&M units in Qinghe County is shown in Table 12.

Table 12: Current Staffing of O&M Units in Qinghe County

O&M Unit	Managers	Technical Staff	Financial Staff	Other Staff	Total Staff	Permanent	Temporary
QFWSDC	3	10	3	4	20	20	0

QAHC	3	21	2	16	42	33	9
QEST	4	0	0	65	69	69	0

The main impact of the Project on the O&M units will be to improve urban infrastructure in the County seat by:

- Upgrading one WTP from 3,500 m³/d to 6,000 m³/d and constructing or upgrading 14 km of water pipelines
- Construct a new WWTP (4,000 m³/d) and 5.8 km of new wastewater pipelines that will need to be operated and maintained
- Provide a new sanitary MSW landfill, two 5 t garbage compaction vehicles, 40 number of new garbage stations and 240 number of new garbage containers, all of which will need to be operated/maintained
- Upgrading a 46 MW boiler house and construction of three heat exchange stations and 3.8 km of heat distribution pipework.

In addition at the Takeshiken Land Port (TLP) the project works will:

- Increase the length of roads to be maintained by some 30%
- Construct a new WTP (1,800 m³/d) and 15.8 km of new water pipelines
- Construct a new WWTP (1,200 m³/d), one wastewater pumping station, 7.4 km of wastewater network pipelines and 3 km of pressurized pumping main.

Both the upgraded WTP serving the county seat and the new TLP WTP will use a more complex treatment process requiring additional staff, up skilling and technical training. Provision and training in the use of laboratory equipment is also needed.

QAHC is considered to already have the required management and technical capacity to undertake the O&M of the upgraded heating system serving the county seat. 18 QAHC staff possess required work permits for heating O&M work, but the number of qualified workers may need to be increased.

The MSW feasibility study identifies the new landfill as requiring 16 staff. This number appears inflated as the new Qinghe landfill will be significantly smaller than the others in the Project. However QEST currently has no technical staff, so recruitment to build the required technical capacity needed to operate the landfill is necessary.

As already stated QEST is currently assigned responsibility for road maintenance for the county seat area and it is proposed it will takeover responsibility for the roads in Takeshiken by establishing its own local team in Takeshiken. Maintenance equipment for the Takshiken roads is provided for in the roads project sub-component. The main constraint seems to be QEST's apparent lack of technical capacity in road maintenance, which will need to be addressed during project implementation.

5.2.6 Overall Assessment of O&M Capacity

The above analysis indicates that current O&M capacity in most of the counties is weak and constrains the level of service provided by the public utility service providers across all the services included in the Project (water supply, wastewater, municipal solid waste, heating and roads). This lack of O&M capacity combined with poor and failing infrastructure means service levels are well below the needs and expectations of local communities. The conclusions of the TA on implementation of 3R policies and creation of resource efficient towns (RET) undertaken in parallel with the PPTA broadly concur with this assessment.

Improving public utility service levels obviously requires both investment in infrastructure and capacity building in utility operation and maintenance. Each of the project counties if left in isolation is unlikely to develop the required levels of capacity. Support is needed, and so too are improved levels of cooperation and a sharing of experience between the counties. In

addition improved public awareness, especially if this can also be made to influence and change individuals' behavior, is also very important.

The 3R & RET report also recognizes these issues and makes some specific proposals, including the formation of a Joint Solid Waste Management Association. A similar body, with possibly a more technical focus, would be appropriate for Water Supply and Wastewater management.

Logically, Altay Housing and Urban-Rural Development Bureau (formerly Altay Construction Bureau), which has a prefecture wide responsibility for services relating to urban management – including all those covered by the Project, should take the lead in facilitating improved inter-county cooperation. This matter has been discussed with APMO, who have indicated support for the formation of professional associations at the APG level. They also acknowledge that if this is successful, then greater cooperation and sharing could follow, including possibly shared resources and equipment – an idea initially presented during the PPTA for inclusion in the proposed Project, but which failed to gain local stakeholder support.

6. Assessment of Capacity Building Needs

The assessment of capacity building needs made here recognizes the fact that the project area is in a remote and relatively under-developed part of China with a long and harsh winter. Also that the project facilities will be implemented in a number of small county towns and land ports which currently suffer from inadequate and decaying urban infrastructure that is incompatible with economic development goals and the expectations of the local communities (as identified during the various stakeholder consultations during the PPTA).

In addition, ADB is working with Xinjiang, Altay and the local county governments to implement the 3R policy (the reduction, recovery and reuse of waste) and to promote concept of resource efficient towns. This initiative which is partly complementary to the Project, and partly integrated with it, also creates additional capacity building needs.

Capacity building needs have been identified by the following processes:

- Needs identified in the feasibility study reports
- By the Consulting team based on their previous experience
- In consultation with APMO and all local PMOs and designated Operating and maintenance Units for the various project facilities.
- Broader stakeholder consultation to identify shortcomings in current services and related urban management issues in the project area.

6.1 Lessons Learned from Previous Capacity Building

Discussions have been held with XPMO and APMO on their previous experience with ADB and World Bank capacity building programs. The feedback from the results and experience gained during earlier capacity building has included the following lessons of potential relevance to the Project:

- Project consulting services have not always been efficiently utilized.
- PMO supervision of consultants needs to be reinforced.
- Poor terms of reference have compromised effectiveness of consulting services.
- Capacity building must be relevant to recipients and they must be fully consulted in its design.
- Capacity building needs to respond to policy developments rather than anticipate them.
- Implementation of institutional reforms is a lengthy process and difficult to achieve except where the reforms in question are part of a government sponsored reform program.

6.2 Previous XPMO & APMO Capacity Building

XPMO and APMO have both benefited from earlier capacity building programs under the previous ADB financed projects, where the main focus has been on implementation support including

- Design review
- Project management
- Procurement and construction management advice
- Project accounting and financial control
- Environmental monitoring
- Resettlement implementation and internal monitoring systems
- Establishment of PPMS
- Support in project reporting.

Both PMOs have found this support useful in facilitating the implementation of the earlier ADB project implementations and have requested that similar support be provided for in the Project's capacity building component. It will be important that XPMO's previous experience in the management of consultants is drawn upon for the benefit of APMO and the IAs/O&M units who will be the main beneficiaries of the consulting services and the associated training program.

6.3 Assessment of XPMO and APMO Capacity Building Needs

XPMO will play a broad supervisory role in project implementation to ensure the XUARG discharges its obligations under the loan agreement. In view of its previous ADB project implementation experience, its capacity building needs are seen to be fairly modest and comprise mostly training of new staff and in new ADB procedures.

APMO as the representative of APG, the designated EA, will play a pivotal role in project implementation with responsibilities for the coordination and direction of IA activities, taking the lead role in procurement, progress reporting and in establishing project accounting and disbursement procedures (in consultation with the Xinjiang and Altay Finance Bureau). Whilst APMO has previous experience of ADB project implementation it is assuming the lead role for the first time. Its capacity building needs are therefore more substantial. Specific needs identified include

(b) Consulting support in:

- Setting up initial procurement systems, including preparation of model contract documents that contain all project specific clauses
- Procurement support (tender document review, bid evaluation etc), with particular emphasis on compliance with ADB procedures
- Establishing project accounting and financial reporting systems and ongoing support in financial reporting
- Establishing PPMS that meets ADB reporting requirements and operationalizing this system
- Preparation of half – yearly progress reporting
- Establishing environmental reporting systems and preparation of regular environmental reports
- Establishment of internal resettlement monitoring systems and preparation of regular progress reports
- Establishment of ethnic minorities and social impact monitoring systems and associated reporting

(c) Training in:

- Project management
- Project planning
- Supervision of Consultants and getting the best from them
- ADB project reporting requirements
- ADB procurement guidelines
- ADB disbursement procedures
- Project accounting with specific emphasis on the ADB/MPF requirements for foreign funded projects
- Governance and Anti-corruption procedures
- ADB Safeguard policies, their practical application and compliance monitoring
- Application of 3R policies and making improvements in the efficiency of resource utilization.

6.4 Assessment of County UCB and PMO Capacity Building Needs

The County UCB and PMOs generally have no previous ADB project experience and somewhat limited technical capacity. The following needs summarize those identified by individual UCBs and by members of the TA Consulting team:

(a) Consulting support in:

- As for APMO and in addition
- Design review
- Support on construction management (progress tracking, potential contract variations, contract claims, resolving unforeseen technical issues etc)
- Advice on environmental monitoring and updating of EMPs
- Advice on resettlement plan implementation and updating of RPs (when necessary)
- Implementation of PPMS
- Periodic review of tariff and cost recovery levels, and developing strategies for transitional subsidies in the lead up to achieving full cost recovery
- Asset commissioning and handover
- Mobilizing Community Participation and Awareness in the Project
- Environmental Awareness and motivating environmentally responsible behavior
- Road Safety Awareness
- HIV & STD awareness and prevention
- Application of 3R policies and making improvements in the efficiency of resource utilization.
- Review of solid waste management arrangements from collection through to disposal

(b) Training in:

- As for APMO and in addition
- Design review
- Contract management
- Asset commissioning
- Capital investment planning and appraisal
- Management training including, business planning, performance management, organizational design, quality management and information management
- Financial management including:
 - Cost control of public utility services
 - Financial control of capital projects
 - Financial planning
 - Budgeting and budgetary control
 - Management of financial risk
- Selective Operations management (see below for more detailed needs identified for O&M units)
- Mobilizing Community Participation and Awareness in the Project
- Environmental Awareness and motivating environmentally responsible behavior

- Road Safety Awareness
- HIV & STD awareness and prevention
- Application of 3R policies and making improvements in the efficiency of resource utilization.

In addition more limited needs were identified for training in:

- Financial accounting
- Internal Audit
- Information management
- Personal computing skills
- Traffic control

(c) Provision of IT and related equipment

As identified by individual IAs – see **Annex 7** for details

6.5 Assessment of O&M Agency Capacity Building Needs

Section 5 has already made an assessment of existing capacity in relation to the O&M needs of the project facilities. That analysis concluded that current O&M capacity in most of the counties is weak and constrains the level of service provided by the public utility service providers across all the services included in the Project (water supply, wastewater, municipal solid waste, heating and roads). This lack of O&M capacity combined with poor and failing infrastructure means service levels are well below the needs and expectations of local communities. Construction of new infrastructure alone will not make the required sustained improvements in services unless accompanied by significant capacity building in O&M capability. Specific areas of weakness identified and where capacity building is clearly required include:

- Limited or no laboratory facilities for monitoring quality control of either water supplies or wastewater treatment.
- No current experience in the operation of sanitary landfill facilities
- Very limited planned road maintenance
- Poor municipal solid waste management with little or no attention yet given to applying 3R policies.
- Limited technical capacity to operate and maintain the new water/wastewater treatment facilities.

The following needs summarize those identified by individual O&M units, and by members of the TA Consultant:

(a) Consulting Support in

- Management capacity building including:
 - Business planning
 - Capital investment planning and appraisal
 - Governance and anti-corruption
 - Management of salary and welfare benefits
 - Design of organizational structure
 - Manpower planning
 - Training needs assessment
 - Performance measurement
 - Quality management
- Financial capacity building including:
 - Financial management
 - Budgeting and budgetary control

- Management of financial risk
- Generic Operations and Maintenance capacity building including:
 - Asset recording procedures including use of GIS
 - Asset maintenance and maintenance planning
 - Preparation of operational procedures
- Water Supply O&M
 - WTP operations
 - Water quality monitoring (including sampling and analysis)
- Wastewater O&M
 - WWTP Operations
 - Sewer inspections and maintenance
 - Sludge treatment and disposal
 - Sampling and Laboratory Analysis procedures
- Solid Waste Management
 - Landfill operations
 - Modern approaches to waste management
 - Waste reduction, recycling and reuse
- Urban Road Management
 - Road safety and accident prevention
- District Heating O&M
 - Energy conservation
 - Modern control and charging systems

(b) Training in

- All items listed for consulting support above
- Limited interest was also expressed for training in:
 - Public utility management
 - Strategic planning
 - Cost control
 - Project accounting and the financial control of capital projects
 - Financial planning
 - Traffic Control

(c) Specialist O&M equipment is lacking, but difficult to justify for small towns that would only make periodic use of it. Examples of such specialist equipment include that for water leakage detection, sewer inspections, and sewer cleaning. One concept considered by the PPTA team was the possible formation of a joint maintenance organization serving the whole of Altay prefecture that could then justify the purchase of modern equipment, and would undoubtedly have enhanced technical capacity compared to small individual county based O&M units. However, APMO and the counties considered this concept a departure from established institutional arrangement for it to be implemented under the Project.

7. Assessment of Procurement Capacity

7.1. Introduction

This section reviews the proposed arrangements for procurement under the Project and the capacity of the agencies involved. APMO will assume the lead role in the procurement process and has established a procurement group to undertake this work. XPMO will exercise a general oversight of the procurement process and provide advice as necessary, including representation on bid evaluation committees.

The IAs as project owners will not be closely involved in procurement procedures and decisions. IA involvement will mainly be in the review and endorsement of the technical specifications. They will also have minority representation on the bid evaluation committee for works and goods contracts that they have an interest in.

The procurement assessment has been conducted by use of ADB's standard procurement assessment questionnaire and by holding detailed discussions with relevant staff of APMO. The detailed procurement assessment questionnaire completed in conjunction with APMO as part of this review is included as **Annex 8** to this Appendix.

7.2. General Arrangements

Public procurement in the PRC has to be carried out in accordance with the PRC bidding law, which stipulates the use of competitive procedures. PRC Government has also issued regulations on anti-corruption and fraud prevention measures in public procurement. XPMO, APMO and other relevant project agencies are well familiar with these requirements and their practical application. Detailed written regulations and procedures govern all domestic procurement for government funded projects and project procurement staff are fully familiar with these.

All procurement under the Project will be carried out in accordance with ADB procurement guidelines and the ADB guidelines will be applied where these impose stricter or slightly different standards than the PRC bidding law. However there is no fundamental conflict between the PRC law and ADB procurement guidelines.

It is normal practice in the PRC for suitably qualified design institutes (DIs) to prepare technical specifications for all engineering related contracts, including for goods and equipment. This arrangement will also apply for the Project.

For larger contracts it is normal practice to engage a professional tendering company to manage the procurement process on the project owner's behalf. The services normally include pre-qualification (where needed), preparation of the commercial sections of bidding documents, advise/supervision on contract evaluation, advice/supervision of contract negotiations and in final contract preparation. During the Project's implementation it is proposed that APMO will engage professional tendering companies with previous ADB experience to support them in the procurement process.

Where appropriate, specific requirements of the loan/project agreements will be included in bidding and contract documents to impose relevant conditions on contractors or to inform them of certain matters. Examples include the requirement on contractors to warn and educate their staff on the dangers of HIV/AIDS, ADB's audit and inspection rights, insurance requirements, compliance with ADB's gender policies, and the consequences of corrupt practices.

PRC government recognizes the risk of corruption in public procurement and has established anti-corruption offices at all levels of government, whose work includes the supervision and audit of procurement.

The review of APMO arrangements (as detailed in Annex 8) identified the following specific safeguards and assurances in relation to the Project's procurement arrangements:

- A dedicated unit has been established within APMO to manage project procurement.
- The unit is adequately staffed in terms of staff numbers and experience, and has previous experience of ADB project procurement (see also paragraph 7.3 below).
- Adequate checks and balances appear to be built into procedures
- Bid evaluation is conducted under strictly controlled procedures with independent experts involved.
- Record keeping and documentation is adequate
- Procedures provide for equal treatment of all bidders.
- Anti-corruption measures and supervision are provided for.

7.3. Previous APMO Experience and Procedures

APMO has previous ADB procurement experience from Xinjiang Municipal Infrastructure & Environment Improvement Project and Xinjiang Urban Transport & Environment Improvement Project. The APMO procurement staff are therefore familiar with ADB procurement principles and guidelines (2006 edition), and the practical application of these. However, at this point in time we understand the latest 2010 ADB procurement guidelines have yet to be made available in Chinese.

Neither XPMO nor APMO has any record of incidents of mis-procurement under earlier ADB financed projects.

A specialist bidding and contract office exists within Altay Construction Bureau and similar offices also exist in each County UCB. Public procurement is therefore dealt with as a specialist professional function by qualified and experienced staff. Procurement staff from the Altay Construction Bureau will work with APMO in the administration of the project procurement, and procurement decisions will be taken based on specialist advice. The written procurement procedures of Altay Construction Bureau will be followed in conjunction with ADB procurement guidelines.

It is normal practice for an independent person from the Altay Government anti-corruption office to attend bid openings and evaluations.

7.4. Capacity Building and Support

Training in ADB procurement procedures has been provided to select XPMO and APMO staff during the earlier projects and during this PPTA. Some training has been similarly provided to county level PMO staff as well as to relevant XPMO and APMO staff. This training included changes made to ADB procurement arrangements in the new 2010 ADB guidelines. Further training sessions will be arranged as necessary and appointed DIs and tendering companies will also be asked to send their relevant staff for this training. Governance and anti-corruption measures should be fully integrated into the training.

As part of the Project's capacity building component there will be an international consulting company appointed to provide implementation support. This support will include design and bidding document review, procurement advice and training, and attendance at bid opening and evaluations.

7.5. Proposed ADB Safeguards on the Project's Procurement

ADB will undertake a prior review of the model form of bidding/contract documents ahead of the first ADB funded contract being procured. ADB will also receive bid evaluation reports for all ADB funded contracts and for selected contracts (such as the appointment of the loan consultants) ADB will require prior review of the draft contract before this becomes effective. Regular six monthly ADB supervisory missions will include a review of procurement activity and the loan/project agreements will provide the normal right of ADB inspection and audit access.

7.6. Overall Assessment of procurement capacity

Based on the above arrangements and the previous procurement record of XPMO/APMO it is concluded that procurement capacity and the procedural arrangements in place are adequate to facilitate full compliance with ADB procurement guidelines and the risk of mis-procurement is acceptably low.

8 Proposed Project Capacity Building

8.1 Objectives of the Capacity Building

Overall Scope and objectives of the capacity building

The overall objective of the capacity building is to enhance the prospects that the Project achieves its intended impact in a timely manner and in compliance with relevant PRC laws/regulations and ADB policies/procedures. The scope of capacity to achieve this encompasses:

- Enhancing project management and implementation capacity
- Enhancing the capacity of O&M units to provide for sustainable operations
- Promoting inclusiveness and value added

Project Management and Implementation Support Objectives

The objectives of this part of the capacity building are to assist the PMOs, O&M units and others involved in the Project to improve their ability to successfully implement the components of the Project. Specifically these include:

- The development of realistic and well considered project plans and project management systems
- The improvement of efficiency of procurement in accordance with ADB procedures
- The development of effective engineering design and construction supervision systems to facilitate adherence to quality standards and completion targets
- The assessment of project effectiveness including monitoring and compliance with relevant ADB safeguard policies (social and environmental)
- Establishing and maintaining proper records, accounts, financial controls and governance systems for the Project
- Project progress and performance reporting
- Advice on compliance with covenants in the project agreement and on the incorporation of applicable policy initiatives

Project Sustainability Objectives

The objectives of this part of the capacity building are to ensure that the designated O&M units have adequate and relevant management, financial, technical and operations capacity to provide services that are:

- Fully funded
- Meet user expectations in terms of levels of service and cost
- Adopt “best practice” operating standards and procedures
- Compatible with 3R and climate mitigation policies

Public Awareness Objectives

The objectives of this part of the capacity building are to develop public education programs (and assist in their implementation) to promote environmentally friendly, climate friendly, and energy efficient living on the part of the counties’ residents. Such programs should consider and incorporate

- The contribution of urban planning to environmental protection and lifestyle improvement
- The role of the environmental industry
- The role of individual residents
- Emerging best practices from both overseas and within the PRC

Community Health Objectives

The objectives of this part of the capacity building are to develop a community health program and assist in its implementation. The program should focus on health risks associated with a

degradation of the urban environment and pay particular attention to the needs of vulnerable groups such as migrant workers and the poor.

Economic Development Objectives

The objectives of this part of the capacity building are to maximize the opportunities the Project creates for facilitating increased local employment. This employment generation to be viewed in the context of the broader social and economic development the project will make possible. An obvious example is increased tourism facilitated by road and other infrastructure construction.

8.2 Overview of the Proposed Capacity Building Program

The capacity building necessary to achieve a successful project implementation and eventual outcome can be categorized into the following:

- Support during project implementation
- Strengthening of O&M agencies to give assurance on project sustainability, and
- Creating “value added” from the Project

In addition there is an extensive training need that is cross-cutting across all aspects of the capacity building. The specific capacity building needs identified under each of these categories are as follows:

Support during project implementation

- Design review and support to local DIs
- Procurement support (tender document preparation, bid evaluation etc), with particular emphasis on compliance with ADB procedures
- Support on construction management (progress tracking, potential contract variations, contract claims, resolving unforeseen technical issues etc)
- Establishing project accounting and financial reporting systems and ongoing support in financial reporting
- Advice on environmental monitoring and updating of EMPs
- Advice on resettlement plan implementation (including internal monitoring)
- Implementation of PPMS and support in progress reporting to ADB.

Strengthening of O&M agencies to give assurance on project sustainability

Improving Access to Services

- Procedures and financing of new connections (water, wastewater and district heating)
- Review of tariff structures and other support to the financially disadvantaged.

Financial Sustainability

- Financial management strengthening, with particular emphasis on budgeting, cost control and financial planning
- Periodic review of tariff and cost recovery levels, and developing strategies for transitional subsidies in the lead up to achieving full cost recovery

Institutional Sustainability

- Organizational development (creating greater management and financial autonomy of O&M entities, improving corporate governance etc)
- Business planning
- Enhancing customer service and customer communications by both local governments and O&M entities

Operational Sustainability

- WWTP operations (including monitoring and control systems)
- Wastewater source control (including permitting systems)
- Landfill operations (including monitoring and control systems)
- Preparation of operational procedures (to meet ISO 9000 requirements)
- Establishment of planned preventative maintenance plans

Creating “value added” from the Project

- Encouraging behavior change in looking after the local environment
- Support to develop small businesses to maximize the leverage of economic stimulus created by the Project
- Enhancing community health awareness (including HIV and STD)
- Enhancing gender awareness
- Energy efficiency program for district heating
- Identification and implementation of 3R initiatives (reduce, reuse, and recycling of waste)
- Traffic management and road safety

Training

- Domestic study tours to view best Chinese practice in the different sectors of the Project
- Seminars and workshops in Xinjiang on all areas of the capacity building
- On the job training (such as on the O&M of new project facilities)
- Extended training or work placements within the PRC (e.g. at technical training schools in larger cities, or work placements at operational WWTP or sanitary landfills)

8.3 Initial Assessment of Training Needs

Training will be an important cross-cutting theme in the capacity building efforts and whilst many training needs can be readily foreseen, others will only be identified in detail as the capacity building work is undertaken.

Consultation with the different level PMOs, the O&M units and with other stakeholders have identified an assessment of training needs as set out in Table 13 below. In addition, training to relevant government agencies in enhancing public education and public awareness have also been identified in these discussions.

Table 13: Assessment of Training Needs

Area of Training	XPMO	APMO	County PMO/UCB	O&M Units
Project Implementation Related Training				
Project management	Yes	Yes	Yes	
Project planning and control	Yes	Yes	Yes	
Financial control of projects		Yes	Yes	
ADB procurement procedures	Yes	Yes	Yes	
ADB Safeguards policies	Yes	Yes	Yes	
ADB reporting procedures/PPMS		Yes	Yes	
Use of standard contract documents		Yes	Yes	
Design review			Yes	
Construction supervision (general)		Yes	Yes	
Site records and control			Yes	
Site safety			Yes	
Quality control in construction			Yes	
Evaluation of contract claims			Yes	
Monitoring and evaluation		Yes	Yes	
Resettlement monitoring		Yes	Yes	

Environmental monitoring		Yes		
Management Training				
Utility management (general)			Yes	Yes
Business/corporate planning			Yes	Yes
Customer service and communications (note 5)				Yes
Capital investment planning & appraisal		Yes	Yes	
Training needs assessment		Yes	Yes	Yes
Performance measurement		Yes	Yes	Yes
Personal management skills development		Yes	Yes	Yes
Computer and IT skills training			Yes	Yes
Financial Training				
Principles of financial management	Yes	Yes	Yes	Yes
Enterprise financial accounting				Yes
Cost & management accounting				Yes
Project accounting	Yes	Yes	Yes	
Financial planning		Yes	Yes	
Project internal auditing	Yes	Yes		
Computerized financial management systems (including the use of accounting software)			Yes	Yes
Operations Training				
WTP operations			Yes	Yes
Water quality monitoring and laboratory analysis				Yes
WWTP operations			Yes	Yes
Wastewater treatment process control				Yes
Sewer inspections and maintenance			Yes	Yes
Wastewater source management			See Note 1	
Sanitary landfill operations			Yes	Yes
Practical application of 3R's policy			Yes	Yes
Road maintenance			Yes	Yes
Traffic control			Yes	Yes
Road safety			Yes	Yes
Energy conservation (general)			Yes	Yes
Energy conservation in district heating			Yes	Yes
Asset recording procedures (including GIS)			Yes	Yes
Planned preventative maintenance			Yes	Yes
Other Training				
Business planning for small businesses (note 2)				Yes
Gender awareness	See note 3			
HIV/AIDS/STD Awareness			Yes	Yes
Environmental awareness	See note 4			
Community health awareness	See note 4			

Notes

1. No need for consulting support or training has been identified in consultations with the PMOs and O&M units. However, these units are not currently involved in this activity. National regulations issued by MOHURD on wastewater source permitting do not seem to have been implemented yet in the project area- so a future capacity building need seems to exist.
2. This training will be partly relevant to O&M units but its main focus will be on small private businesses and possible start-up businesses.
3. ADB and the TA social experts have identified this need; however there has been no take up to this by the project agencies during consultations on training needs.
4. These needs were confirmed as important during the PPTA consultative process and also acknowledged by the project agencies at local level.
5. This need was identified as important during PPTA stakeholder consultations – but not requested by the O&M units during consultations on capacity building needs.

8.4 Detailed Scope of Work

A detailed scope of work for the proposed capacity building has been prepared and is included as **Annex 9** to this Appendix.

8.5 Reporting and Timetable

The capacity building should ideally be programmed for 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, and budgetary constraints suggest the program be restricted to four years.

The provider of the project implementation consulting services should be appointed as soon as possible after loan effectiveness and should be required to provide the following reports:

- An inception report (within one month of commencement)
- Detailed training plan within three months of commencement
- Half-yearly progress reports compatible with Altay's reporting obligations to ADB
- Safeguards monitoring reports compatible with Altay's reporting obligations to ADB
- A completion report that is compatible with Altay's reporting obligation to ADB at the conclusion of project implementation (assuming physical works are completed within 4 years as currently envisaged)

All these reports will be submitted in English and Chinese to APMO. Recommendations arising from the capacity that require any form of formal client action or approval (i.e. by APG, APMO, the counties or others) 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 APMO specifically requests an English version.

The providers of the other capacity building sub-components will be expected to prepare an inception report to confirm or suggest amendments to their technical proposals, quarterly progress reports on their work, specific reports as provided for in their terms of reference (TOR) and final reports. All such reports are to be prepared in both Chinese and English (to allow for easy incorporation into APMO progress reports to ADB).

8.6 Indicative Consulting Resource Requirements

An indicative resourcing schedule has been prepared based on the needs of the various project agencies as assessed during the project preparation phase. This is shown in Table 14 below. Whilst initial thinking was that the capacity building services be provided through three separate contracts it is now viewed as being more efficient if all services are procured through a single contract. However, it is understood that the possibility of ADB grant assistance does exist, which would allow for some of the "value added" items to be separately financed and the total capacity building resources increased.

Table 14: Estimated Consulting Requirements

Area of Expertise	International Months	National Months
<i>Project Implementation</i>		
TL/DTL (project management)	12	36
Procurement support	1	12
Financial Management	0	8
Training & Capacity Building	0	8
Environmental Monitoring	0	8
Resettlement Monitoring	0	8
PPMS & Social Impact Assessment (including ethnic minorities)	3	12
<i>Project Operations</i>		
Traffic Management & Road Safety	0	4
Water Supply Operations	0	3
Wastewater Operations	0	8
Solid Waste Management	0	8
District Heating	0	4
<i>Public & Social Awareness</i>		
Environmental Awareness	0	6
Community Health Awareness	0	3

Gender Awareness	0	3
<i>Economic Development</i>		
Small Business Advisor	0	12
Total	16	143

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

The contract for providing the capacity building should include the provision of the following items:

- All staff and personnel costs, including international and local travel, housing accommodation and subsistence
- Office equipment (but not 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. The Client, who shall approve the make and specification of all equipment, shall give assurances that the equipment can be maintained locally. The equipment and software will become the property of the Client at the end of the consultancy contract.
- Arrangements and financial provision for in country training programs to be reimbursed at cost
- Arrangements and financial provision for domestic study visits to view best Chinese practices to be reimbursed at cost
- The provision of a fully qualified interpreter to work with the Consultant on a full-time basis (where necessary)
- The costs of all report and document preparation and printing.

8.8 Requirements for Capacity Building Providers

The capacity building provider should be experienced in implementing similar capacity building programs in the PRC. Prospective providers, 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 negotiation stage.

In their technical proposals, the prospective providers 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.

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 providers should be required to confirm they accept their use in measuring their own performance.

8.9 Indicative Budget

Table 15 shows an indicative overall budget for the capacity building. A more detailed budget with the assumptions made in its construction is included as Annex 10 to this Appendix. To date no attempt has been made to disaggregate this budget over individual project components/sub-components. In practice this is normally done pro-rata to onlending, rather than attempting to allocate capacity building costs based on resource inputs.

Table 15: Indicative Budget for the Project's Capacity Building (all figures are \$000)

Item	Institutional Capacity	Public Awareness	Economic Development	Total Budget
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International Consultancy	242	See note 2	0	242
National Consultancy	426	43	43	512
Office Rental	48	See note 3	See note 3	48
Office Equipment and support	44	See note 3	See note 3	44
Local transport	20	2	2	24
Surveys and Consultations	15	5	-	20
Publicity material		10	-	10
Total for Loan Consulting	795	60	45	900
Training	400	See note 4	See note 4	400
IA Equipment	170			170
Advance Assistance	30			30
Total	1395	60	45	1500

Notes:

1. The consultancy costs include consulting fees, per diem and travel to and from Xinjiang.
2. It is envisaged that overall supervision for this work would come from the international social specialist engaged for the project implementation PPMS/social impact work.
3. It is envisaged these programs would share office facilities with the project implementation team.
4. Some training resources will be assigned to these programs. This will be determined once a detailed training plan is devised at the commencement of project implementation.

9. Summary of Conclusions and Recommendations

The PRC institutional arrangements for urban management have remained relatively stable and quite standardized for many years, with only minor adjustments made in ministerial responsibilities at national level. Over the last decade there has been increased delegation to local governments to approve and implement urban infrastructure projects, and also in how services are provided, but this is always subject to compliance with relevant national policies, laws and regulations. Institutional arrangements in Xinjiang, Altay and the project counties are consistent with the normal PRC arrangements found at these different levels of government.

The arrangements proposed by Xinjiang and Altay Governments for the implementation of the proposed Project are broadly similar to the arrangements for earlier ADB urban environmental projects both in Xinjiang and elsewhere. Most important is that both XUARG and Altay Government, together with their respective PMOs have previous ADB project implementation experience and therefore a reasonable knowledge and understanding of ADB policies and procedures. The overall project implementation arrangement is depicted in **Figure 5** below.

Important differences with many earlier ADB funded urban infrastructure projects are as follows:

- The project counties are sparsely populated with small urban centers (population ranging from 15,000 to 30,000). Local technical and financial capacity is accordingly weak.
- Local urban service providers generally have few, if any, technical staff which makes them unsuitable for undertaking the traditional “implementing agency” role.
- Urban service providers generally do not have the financial capacity to either provide counterpart funds or service the ADB loan.
- It is therefore proposed the County governments undertake the role of project IA and also assume responsibility for debt servicing. This approach will make the best use of the local technical capacity that does exist and also give the project implementation capacity building a more focused number of targets. This implementation approach will also give the local governments a greater flexibility in

developing their cost recovery and utility tariff strategies, which is important given the high incidence of poverty in the project area.

Understandably, given the small, remote and relatively impoverished nature of the counties participating in the Project, sizable capacity building needs (circa \$1.5 million) have been identified and support for these has been obtained from Xinjiang and Altay PMOs in consultation with other local agencies. The implementation of this capacity building program is considered a very important safeguard and risk mitigation measure in order to create adequate assurance for an eventual success outcome to the Project.

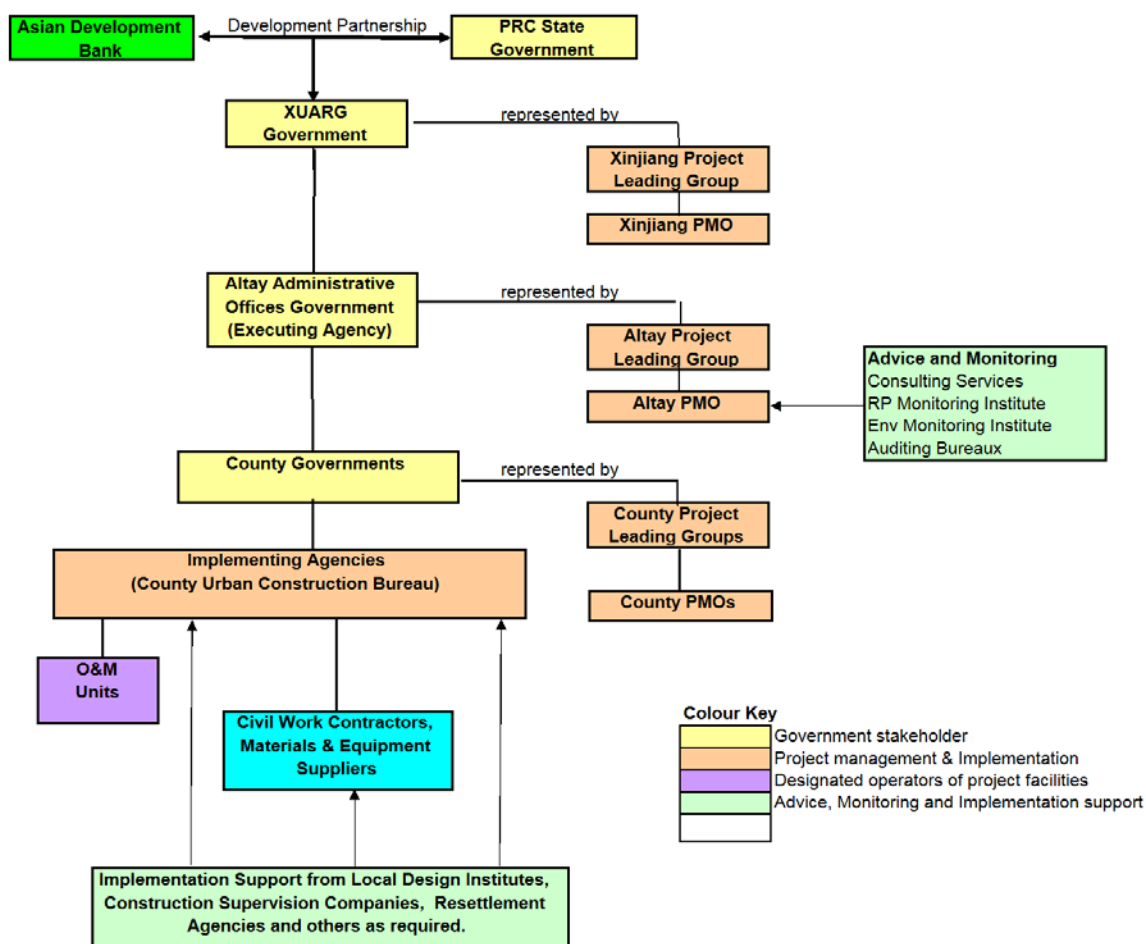
APMO and local county PMO staffing strength and capacity has been reviewed and discussed in detail. Whilst each PMO is relatively small and with a heavy workload, its staffing level is not disproportionate with many other equivalent PMOs in the PRC that have been shown to operate effectively (Hebei and Shandong PMOs are two specific examples).

It is considered the focus should be on training and capacity building to improve PMO effectiveness rather than increasing headcount. As the local county urban construction departments (bureaus) will play a key role in project implementation their capacity has also been analyzed.

Procurement capacity of APMO has been assessed and found to be adequate, with the risk of mis-procurement being acceptably low. Whilst APMO will undertake the lead procurement role they will operate under the broad direction and supervision of XPMO and also be supported by specialist tendering companies and by consultants providing the capacity building services financed under the loan. A separate risk assessment and management plan based on ADB's GACAPII policy and guidelines, and which includes procurement risk has been drafted.

The proposed arrangements for the operations and maintenance phase of the Project have been reviewed in detail. Generally the arrangements proposed are sensible and also make best use of the local operations and maintenance capacity that currently exists. This is important. Institutional due diligence has been carried out in respect of all the proposed O&M units and each is found to be properly licensed with relevant supervisory authorities. The O&M units proposed are a mix of government institutions, state-owned enterprises and two private enterprises.

Fig 5: Organization of Xinjiang Altay Urban and Environmental Improvement Project



The involvement of the two private enterprises is necessary as these are the current service providers for local heating services, and rehabilitation of heating infrastructure is an urgent need identified by the local communities, without an alternative source of funding, and therefore a priority for inclusion in the Project. The institutional due diligence on these two companies has not uncovered definitive information on asset ownership (of the heating boilers and pipework) or the full contractual obligations of the private enterprises. However, in each case the relevant county government believes their service performance to be adequate and the service failings relate to failing infrastructure the reasons for which pre-date the PSP arrangement. However, as these private enterprises will potentially benefit indirectly from the loan, it is considered quite important that the PSP arrangements are made more transparent and quite possibly should be re-negotiated. An assurance to this end should be included in the project legal documentation.

The Project will involve the construction of some facilities for which there is currently no local operating experience. This includes sanitary landfills, and more technically complex water and wastewater treatment plants. Training and consulting support to develop and implement appropriate operating and maintenance procedures will therefore be vital to ensure operational sustainability of the new facilities. The capacity building proposals therefore includes for the preparation of operating plans and procedures in parallel with physical project implementation.

The separate TA on the application of 3R policies and the creation of RET implemented in parallel has made some specific proposals that appear to be generally, although not fully, compatible with the findings of the TA Consultant. The need for significant capacity building

and to promote greater cooperation and experience sharing between the project counties is a matter both teams agree on and feel should be strongly pursued in the Project.

Annexes

Annex 1 Altay PLG and Altay PMO - Project Institutional Arrangements

(A) Overall Project Management

Under the broad oversight of XUARG, Altay Prefecture Government, as the project Executing Agency will direct and coordinate all project implementation activity. In order to discharge this responsibility APG has set up a project leading group and a project management office that will operate together on its behalf. The composition of the PLG and PMO are set out below.

Altay PLG and Altay PMO

Altay PLG

Leader	Altay Prefecture Government	Vice Party Secretary, Standing Vice Governor
Vice Leader	Altay Prefecture Government	Vice Governor
Member	DRC	Vice Secretary General, DRC Director
	Finance Bureau	Chief
	DRC	Party Secretary, PMO Director
	Construction Bureau	Chief
	Environmental Protection Bureau	Party Secretary
	Traffic Bureau	Chief
	Water Resources Bureau	Chief
	Tourism Bureau	Party Secretary, Chief
	Agriculture Bureau	Chief
	Women's Federation	Chairperson
	Finance Bureau	Vice Chief
	DRC	Vice Director
	PMO	Vice Director
	State Land Resources Bureau	Vice Chief
	Construction Bureau	Vice Chief
	Audit Bureau	Vice Chief
	Forestry Bureau	Vice Chief
	Ethnic & Religious Affairs Bureau	Vice Director

Leaders and Management staff of Altay PMO

Leader	Altay Prefecture Government	Vice Party Secretary, Standing Vice Governor
Office Director	Altay Prefecture Government, DRC	Vice Secretary General, DRC Director
Office Vice Director		DRC Vice Director
		PMO Vice Director
		Vice Chief
		Vice Chief
Staff	DRC Foreign Fund Section	Section Chief
	Finance Bureau Foreign Affairs Section	Section Chief
	Construction Bureau Urban Construction Section	Vice Section Chief
	DRC Foreign Fund Section	Vice Chief Staff
	DRC Foreign Fund Section	Staff
	Finance Bureau Foreign Affairs Section	Staff

These arrangements replicate those set up by APG under the ongoing ADB funded Xinjiang Municipal Infrastructure & Environment Improvement Project and Xinjiang Urban Transport & Environment Improvement Project, however the capacity of APMO has been strengthened to take account of its enhanced role under the XAUIEIP.

Annex 2 Buerjin County- Project Institutional Arrangements

(A) Overall Project Management

In common with the other counties participating in the XAUIEIP, Buerjin County Government has established a project leading group and a project management office in order to coordinate and direct project preparation and implementation. The composition of these bodies is set out below:

Buerjin PLG

PLG Position	Host organization	Position in Host Organization
Leader	County Party Committee	Party Vice Committee, Standing Vice Magistrate
Vice Leader	County Party Committee	Vice Magistrate
Members	Construction Bureau	Chief
	Development & Reform Commission	Director
	Economy and Trade Committee	Director
	Finance Bureau	Chief
	Audit Bureau	Chief
	Supervision Bureau	Chief
	State Land Resources Bureau	Chief
	Agriculture Bureau	Chief
	Forestry Bureau	Chief
	Animal Husbandry and Veterinary Bureau	Chief
	Water Resources Bureau	Chief
	Environmental Protection Bureau	Chief
	Civil Affairs Bureau	Chief
	Letters and Visits Bureau	Chief
	Traffic Bureau	Chief
	Ethnic and Religious Affairs Bureau	Chief
	Woyimoke Township Government	Township Chief
	Chonghuer Township Government	Township Chief
	Dulaiti Township Government	Township Chief
	Kuositeke Township Government	Township Chief
	Yegezituobie Township Government	Township Chief
	Buerjin Town Government	Party Secretary, Town Chief

Buerjin PMO

PMO Position	Host Organization	Position in Host Organization
Leader	County Party Committee	County Standing Committee, Standing Vice Magistrate
Vice Leader	County Government	Vice Magistrate
Office Director	Construction Bureau	Chief
Office Vice Director	DRC	Vice Director
	Finance Bureau	Vice Chief
	Construction Bureau	Vice Chief
Staff	DRC	Official
	Finance Bureau	Official
	Construction Bureau	Official
	Construction Bureau	Official

(B) Assignment of Responsibilities

Buerjin County Government has assigned the Buerjin County Urban and Rural Construction Bureau (the Construction Bureau) to assume the role of project implementing agency. In addition the following agencies have been assigned to be responsible for the operations

phase of the individual sub-components in Buerjin County.

Water Supply – Buerjin County Jincheng Water Supply and Drainage Company

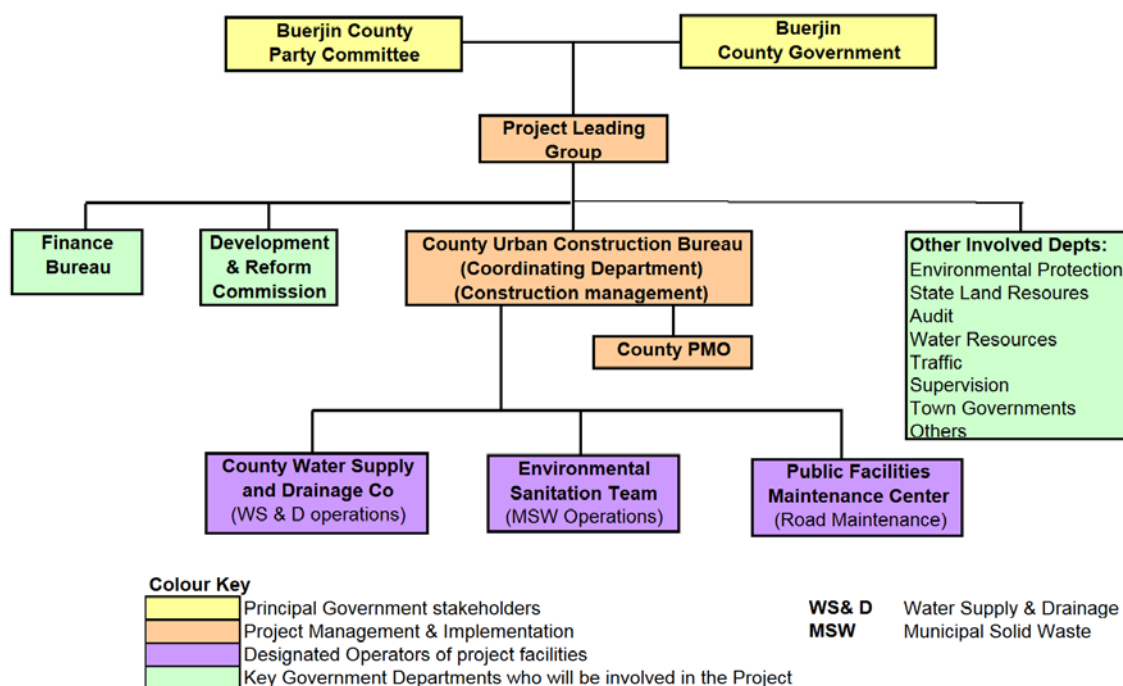
Drainage – Buerjin County Jincheng Water Supply and Drainage Company

Solid Waste – Buerjin County Environment and Sanitation Team

Roads – Buerjin County Public Facilities Maintenance Center

An overview of the project management arrangements in Buerjin is set out below:

Project Organisation in Buerjin County



(C) Institutional Analysis of Individual Project Agencies

Each of the main project agencies is discussed below:

1. Buerjin County Urban and Rural Construction Bureau

Type of Organization: Government Agency

Reporting to: The People's Government of Buerjin County

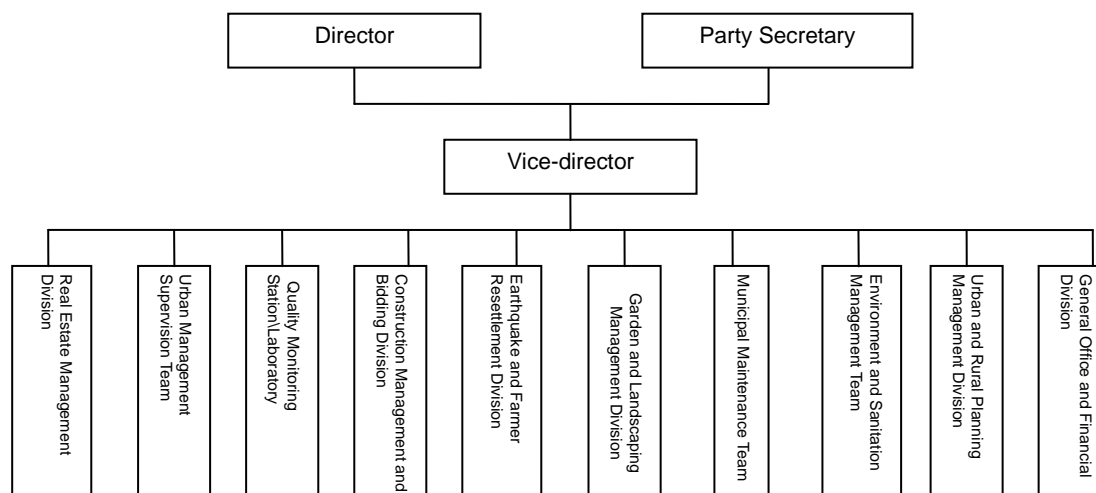
Work Scope: In accordance with the principles, policies, laws and regulations related to urban and rural development made by the Party and the State, taking account of the county's local situation and practices. The work scope includes the preparation, revision, implementation of urban and rural overall planning and detailed planning and professional planning of regional areas; guidance and management of urban water supply, gas, heating, municipal facilities, roads, landscaping, city appearance, environment and sanitation.

Staffing:

Type	Number	Employment Status	Number	Education level	Number
Managerial	4	Permanent	21	Postgraduate	
Technical	5	Temporary		Graduate	9
Financial	1			Other Technical Qualification	12

Others	11			High School educated	
				Lower levels of education	
Total	21	Total	21	Total	21

The organization structure is as set out below:



Governance Arrangements:

- Subject to government accounting, budgetary and audit arrangements
- There are internal regulations and procedures covering management, staffing, financial and technical/operational matters.

2. Buerjin County Jincheng Water Supply and Drainage Company

Type and Details of Organization:

- Corporation (Wholly State Owned)
- The Company is a legal person type company without a Board of Directors.
- Lv Xinjie is the legal person and General Manager.
- The Company is under the supervision of the County Finance Bureau.
- The date of Formation was March 2009.
- Business License Number: 654321050000782

Paid-Up Capital: CNY2 million (\$290,000)

Licensed Business Scope: Drinking water, installation and maintenance for drainage construction, tap-water, wastewater management, municipal construction management, materials sales, water meter measuring and sales

Actual Business Scope: Tap-water production and supply for the city and the town, and wastewater facilities management

Staffing Details:

Type	Number	Employment Status	Number	Education level	Number
Managerial	2	Permanent	17	Postgraduate	
Technical	8	Temporary		Graduate	4
Financial	2			Other Technical Qualification	8
Others	5			High School educated	3
				Lower levels of education	2

Total	17	Total	17	Total	17
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Governance Arrangements:

- The GM has no other positions either internally or externally.
- There is no Board of Directors and relevant government departments directly exercise supervision in accordance with established arrangements that apply to many SOE in the PRC.
- Prepares enterprise financial statements; and
- Audited by the County Audit Bureau

3. Buerjin County Environment and Sanitation Team

Type and Details of Organization: Public Institution

- An independent corporate body, wholly government owned
- Registered as a public institution with Buerjin County Quality and Technical Supervision Bureau (Organization Code Certificate number 45841512-8)
- Supervised by the Buerjin County Urban and Rural Construction Bureau
- Paid up capital is CNY0.84 million (\$124,000)
- The legal Person is Zhao Pengcheng.

Business Scope: Urban environment and sanitation construction, operation and maintenance for sanitation facilities, sanitation supervision and management, management of road appearance

Staffing:

Type	Number	Employment Status	Number	Education level	Number
Managerial	3	Permanent	107	Postgraduate	
Technical	16	Temporary		Graduate	1
Financial	1			Other Technical Qualification	16
Others	87			High School educated	1
				Lower levels of education	89
Total	107	Total	107	Total	107

Governance arrangements:

- Adopts government accounting and is subject to audit by Buerjin Finance Bureau
- There are internal regulations and procedures covering management, staffing, financial and technical/operational matters.
- The legal person has no apparent conflicts of interest.

4. Buerjin County Public Facilities Maintenance Center

Type and Details of Organization:

- Public Institution (wholly government owned)
- An independent corporate body, wholly government owned
- Formed in September 1990
- Registered as a public institution with Buerjin County Quality and Technical Supervision Bureau (Organization Code Certificate number 45841391-5)
- Supervised by the Buerjin County Urban and Rural Construction Bureau
- Paid up capital is CNY0.8 million (\$120,000)
- Legal Person is Feng Xuedong.

Scope of Business: Maintenance of public facilities in the town

Staffing:

Type	Number	Employment Status	Number	Education level	Number
Managerial	2	Permanent	12	Postgraduate	1
Technical	6	Temporary		Graduate	
Financial	2			Other Technical Qualification	5
Others	2			High School educated	3
				Lower levels of education	3
Total	12	Total	12	Total	12

Governance arrangements:

- Adopts government accounting and is subject to audit by Buerjin Finance Bureau
- There are internal regulations and procedures covering management, staffing, financial and technical/operational matters.
- The legal person has no apparent conflicts of interest.

Annex 3 Fuhai County- Project Institutional Arrangements

(A) Overall Project Management

In common with the other counties participating in the XAUIEIP, Fuhai County Government has established a project leading group and a project management office in order to coordinate and direct project preparation and implementation. The composition of these bodies is set out below:

Fuhai PLG

PLG Position	Host organization	Position in Host Organization
Leader	County Government	County Standing Committee, Standing Vice Magistrate
Vice Leader	County Government	Vice Magistrate
Member	DRC	Director, County PMO Vice Director
	Construction Bureau	Chief
	Finance Bureau	Chief
	Audit Bureau	Chief
	Environmental Protection Bureau	Chief
	Traffic Bureau	Chief
	State Land Resources Bureau	Chief
	Forestry Bureau	Chief
	Water Resources Bureau	Chief
	Agriculture Bureau	Vice Chief
	Animal Husbandry and Veterinary Bureau	Vice Chief
	Jietearele Township Government	Jietearele Township Party Secretary
	Aerda Township Government	Aerda Township Party Secretary
	Fuhai Town Government	Party Secretary

Fuhai PMO

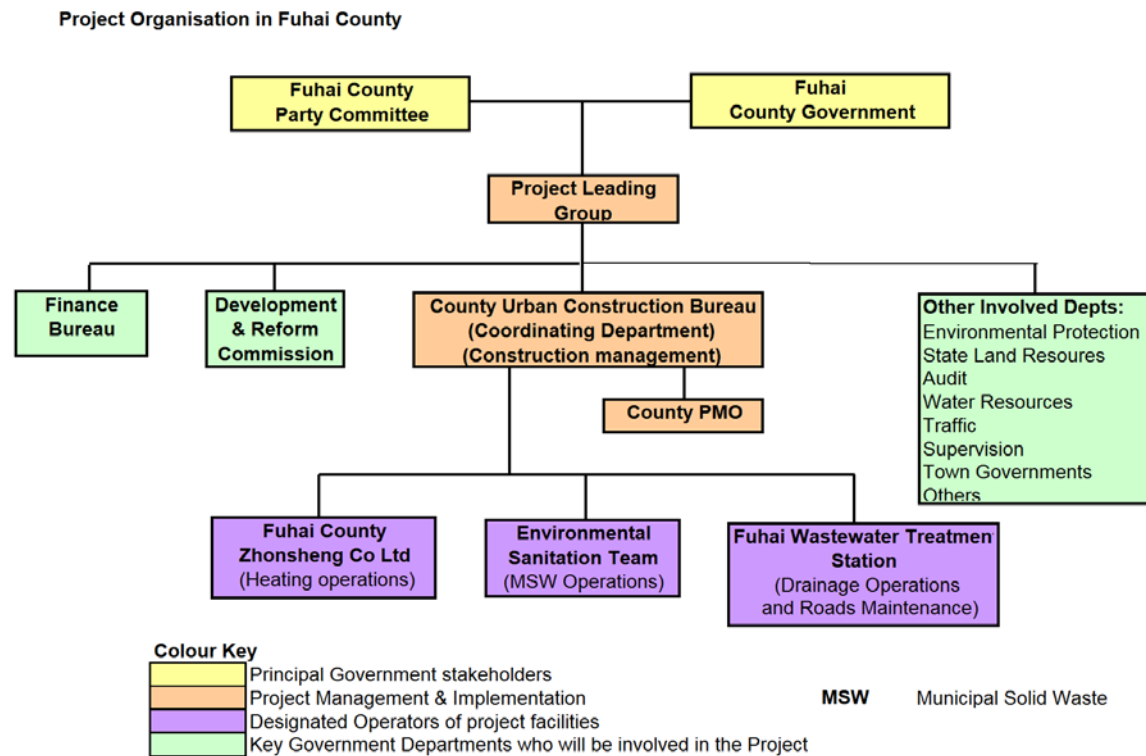
PMO Position	Host Organization	Position in Host Organization
Leader	County Party Committee	County Standing Committee, Standing Vice Magistrate
Vice Leader	County Government	Vice Magistrate
Office Director	Construction Bureau	Chief
Office Vice Director	DRC	Vice Director
	Finance Bureau	Vice Chief
	Construction Bureau	Vice Chief
Staff	DRC	Section Member
	Finance Bureau	Section Member
	Construction Bureau	Section Member
	Construction Bureau	Section Member
	Construction Bureau	Section Member

(B) Assignment of Responsibilities

Fuhai County Government has assigned the Fuhai County Construction Bureau to assume the role of project implementing agency. In addition the following agencies have been assigned to be responsible for the operations phase of the individual sub-components in Fuhai County.

Heating – Fuhai County Zhongsheng Co., Ltd
 Drainage – Fuhai County Wastewater Treatment Station
 Solid Waste – Fuhai County Environment and Sanitation Team
 Roads – Fuhai County Wastewater Treatment Station

An overview of the project management arrangements in Fuhai is set out below:



(C) Institutional Analysis of Individual Project Agencies

Each of the main project agencies is discussed below:

1. Fuhai County Construction Bureau

Type of Organization: Government Agency

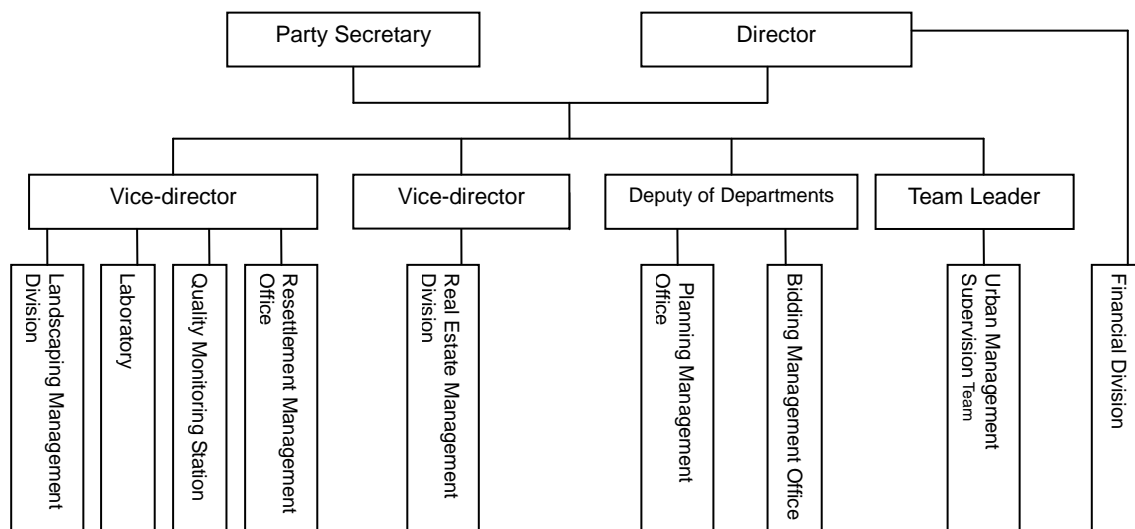
Reporting to: The People's Government of Fuhai County

Work Scope: Urban and rural construction, urban and rural planning, municipal construction, quality supervision, bidding supervision, urban and rural afforestation, city management, real estate management

Staffing:

Type	Number	Employment Status	Number	Education level	Number
Managerial	8	Permanent	81	Postgraduate	
Technical	20	Temporary	12	Graduate	10
Financial	3			Other Technical Qualification	
Others	62			High School educated	65
				Lower levels of education	18
Total	93	Total	93	Total	93

The organizational structure is as set out below:



Governance Arrangements:

- Subject to government accounting, budgetary and audit arrangements
- There are internal regulations and procedures covering management, staffing, financial and technical/operational matters.

2. Fuhai County Zhongsheng Co., Ltd

Type and Details of Organization:

- Corporation (Privately Owned)
- The Company is privately owned with a Board of Directors comprising Yan Yuguo and Liu Jianhua (private individual investors) who own 90% and 10% of the company respectively.
- Yan Yuguo is the legal person and General Manager.
- The date of Formation was 7 February 2005.
- Business License Number: 654323050000620
- Tax registration number: 65432377037341-X

Paid-Up Capital: CNY7 million (\$1 million)

Licensed Business Scope: Scope of business (within the limits of national laws and regulations) includes heating supply, installation and maintenance of the heating pipeline, house renting, and heating, boiler, electric equipment accessories sales

Actual Business Scope: Heating supply for Fuhai county and town

The Company assumed ownership of the Fuhai County heating supply assets under an agreement dated 24th November 2004. A formal asset transfer document was issued at the time. The Company commenced providing heating services to the County from its commencement of trading on 7 February 2005. The contract obliges the Company to guarantee the heating supply of the County and is for an indefinite period.

Staffing Details:

Type	Number	Employment Status	Number	Education level	Number
Managerial	6	Permanent	42	Postgraduate	
Technical	27	Temporary	12	Graduate	1

Financial	2			Other Technical Qualification	26
Others	19			High School educated	27
				Lower levels of education	
Total	54	Total	54	Total	54

Governance Arrangements:

- Whilst there is a Board of Directors, the composition of the BOD and ownership structure of the Company means this cannot fulfill a meaningful governance function.
- The Fuhai Construction Bureau exercises supervision of the heating services provided by the Company. As a private enterprise the Company is subject to regulation/supervision by relevant departments of Habahe County Government.
- There are internal regulations and procedures covering management, staffing, financial and technical/operational matters.
- Prepares enterprise financial statements; and
- Accounts are subject to audit by a private accounting firm. Information also needs to be filed with the local Bureau of Statistics.

3. Fuhai County Environment and Sanitation Team

Type and Details of Organization:

- Public Institution (an independent corporate body, wholly government owned)
- Formed in October 1998
- Registered as a public institution with Fuhai County Public Institution Registration Management Bureau (Certificate number 165432360001)
- Supervised by the Fuhai Construction Bureau on behalf of Fuhai People's Government
- The paid up capital is CNY1.252 million (\$184,000).
- The legal person is Duan Yuhong.

Business Scope: Environment and sanitation management within the town, street cleaning and solid waste cleaning, transportation and treatment

Staffing:

Type	Number	Employment Status	Number	Education level	Number
Managerial	3	Permanent	23	Postgraduate	
Technical	0	Temporary	47	Graduate	2
Financial	2			Other Technical Qualification	6
Others	65			High School educated	9
				Lower levels of education	53
Total	70	Total	70	Total	70

Governance arrangements:

- Adopts government accounting and is subject to local government audit
- Government financed and subject to the standard government budgetary control regime
- There are internal regulations and procedures covering management, staffing, financial and technical/operational matters.
- The legal person has no apparent conflicts of interest.

4. Fuhai County Wastewater Treatment Station

Type and Details of Organization:

- Public Institution (an independent corporate body, wholly government owned)
- Formed in March 1995
- Registered as a public institution with Fuhai County Public Institution Registration Management Bureau (Certificate number 165432360008)
- Supervised by the Fuhai Construction Bureau on behalf of Fuhai People's Government
- The Legal Person is Li Zurong.

Business Scope: Municipal construction facilities management and maintenance for production and living, urban wastewater facilities maintenance and management, municipal wastewater treatment maintenance and management, road and pipeline project management of the county and the town

Staffing:

Type	Number	Employment Status	Number	Education level	Number
Managerial	2	Permanent	10	Postgraduate	
Technical	0	Temporary		Graduate	3
Financial	2			Other Technical Qualification	
Others	6			High School educated	1
				Lower levels of education	2
Total	10	Total	10	Total	6

Governance arrangements:

- Adopts government accounting and is subject to local government audit
- Government financed and subject to the standard government budgetary control regime
- There are internal regulations and procedures covering management, staffing, financial and technical/operational matters.
- The legal person is also the Afforestation Team Leader, but this appears to create no obvious conflict of interest.

Annex 4 Habahe County – Project Institutional Arrangements

(A) Overall Project Management

In common with the other counties participating in the XAUIEIP, Habahe County Government has established a project leading group and a project management office in order to coordinate and direct project preparation and implementation. The composition of these bodies is set out below:

Habahe PLG

PLG Position	Host organization	Position in Host Organization
Leader	County Government	County Standing Committee, Standing Vice Magistrate
Vice Leader	County Government	Vice Magistrate
Member	DRC	Party Secretary
	DRC	Director
	Construction Bureau	Chief
	Finance Bureau	Chief
	Agriculture Bureau	Chief
	Forestry Bureau	Chief
	Water Resources Bureau	Chief
	Tourism Bureau	Chief
	Environmental Protection Bureau	Party Secretary
	Traffic Bureau	Chief
	Finance Bureau	Vice Chief
	State Land Resources Bureau	Vice Chief
	Audit Bureau	Vice Chief
	Forestry Bureau	Vice Chief
	DRC	Vice Director
	PMO	Vice Director
	Construction Bureau	Party Member, Housing Management Section Chief

Habahe PMO

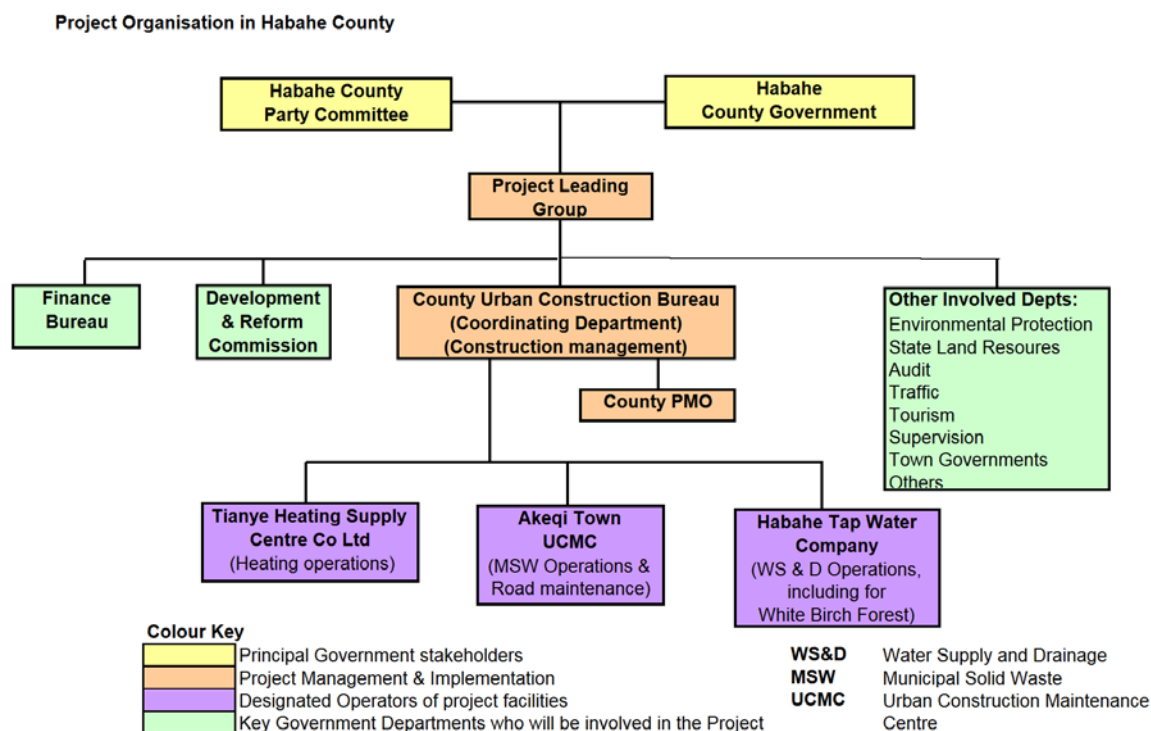
PMO Position	Host Organization	Position in Host Organization
Leader	County Government	Standing Vice Magistrate
Vice Leader	County Party Committee	County Committee Organization Department Chief
Office Director	Construction Bureau	Chief
Office Vice Director	DRC	Party Secretary
	Tourism Bureau	Chief
	Forestry Bureau	Chief
	Finance Bureau	Vice Chief
Staff	Environmental Protection Bureau	Environmental Monitoring Team Leader
	Construction Bureau	Staff
	DRC	Staff
	Finance Bureau	Staff
	Construction Bureau	Housing Management Section Chief
	Forestry Bureau	Staff

(B) Assignment of Responsibilities

Habahe County Government has assigned the Habahe County Construction Bureau to assume the role of project implementing agency. In addition the following agencies have been assigned to be responsible for the operations phase of the individual sub-components in Habahe County.

Heating – Habahe County Tianye Heating Supply Center
 Water Supply – Habahe Tap-water Company
 Drainage – Habahe Tap-water Company
 Water Supply & Drainage for White Birch Forest Tourist Area – Habahe Tap-water Company
 Solid Waste – Akeqi Town Urban Construction Maintenance Center
 Roads – Akeqi Town Urban Construction Maintenance Center

An overview of the project management arrangements in Habahe is set out below:



(C) Institutional Analysis of Individual Project Agencies

1. Habahe County Construction Bureau

Type of Organization: Government Agency

Reporting to: The People's Government of Habahe County

Work Scope:

- On behalf of Habahe County People's Government to manage the construction within the county according to the law
- Implement the laws, regulations and guidelines related to construction made by the state; work out and implement the development plan for project construction, urban construction, construction industry, real estate, public utility and related industry policy
- Guide and supervise the bidding activity related to engineering design and implementation, and guide and standardize design market and building market; responsible for engineering investigation design and industry management and qualification management for engineering installation; manage engineering quality supervision; responsible for as-built acceptance, engineering cost management, quality levels and engineering consulting work; guide the safety production, organize or with the relevant departments to investigate the major accident in the construction
- Responsible for preparing and organizing municipal public facilities construction and maintenance planning of the central city; guide and manage the water supply, gas

supply, municipal facilities, urban transportation, landscaping of the county. Integrated management of urban water supply and drainage, night scenes, street lighting facilities

- Responsible for the management of real estate industry, and standardization of real estate market; organize and implement urban construction check and acceptance work; responsible for residential real estate management, urban housing demolition; management of real estate transfer, mortgage and leasing work
- Work out and implement the industry development planning and talent training planning; promote the application of new techniques, new technology and new materials; manage the foreign economic and technological cooperation of the construction industry, guide enterprises to expand their domestic and international construction markets and real estate markets
- Manage the earthquake relief construction work of the county's industrial and civil buildings; guide the construction of the county; manage the files of urban construction and project construction

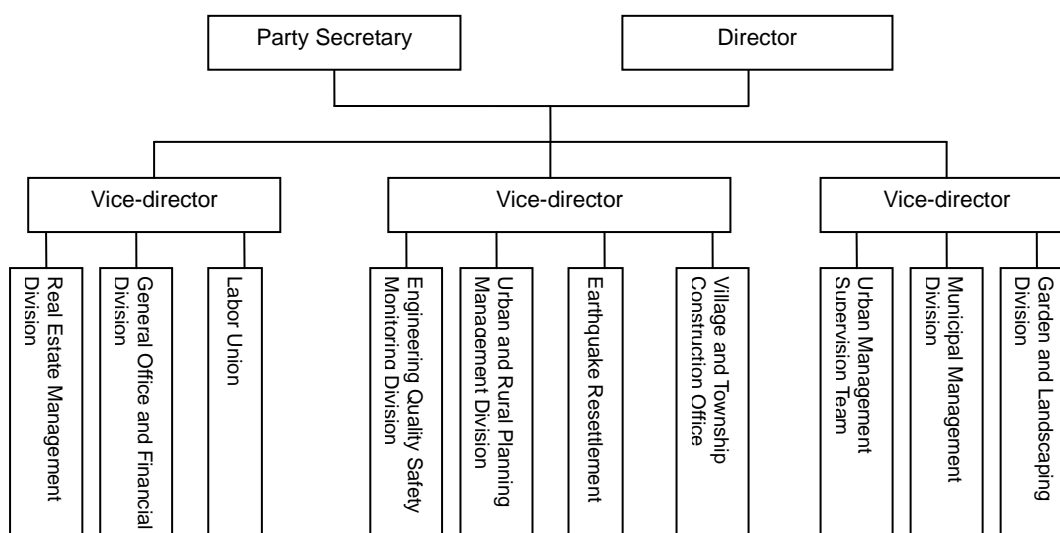
Staffing:

Type	Number	Employment Status	Number	Education level	Number
Managerial	16	Permanent	57	Postgraduate	
Technical	29	Temporary		Graduate	10
Financial	2			Other Technical Qualification	45
Others	10			High School educated	2
				Lower levels of education	
Total	57	Total	57	Total	57

Governance Arrangements:

- Subject to government accounting, budgetary and audit arrangements
- There are internal regulations and procedures covering management, staffing, financial and technical/operational matters.

The organizational structure of the UCB is as set out below:



2. Habahe County Tianye Heating Supply Center (HTHSC)

Type and Details of Organization:

- Corporation
- Three private investors privately own the company: Chen Baogang (51.5%

ownership), Zhang Zuotian (25.5% ownership) and Chen Shenghua (23% ownership).

- Chen Baogang is the legal person and General Manager.
- The date of Formation was in 2004.
- Business License Number: 654324070000015
- Tax registration: Verbally confirmed as registered, no details provided

Paid-Up Capital: CNY2 million (\$290,000)

Licensed Business Scope: Heating supply and heating installation and maintenance

Actual Business Scope: Heating supply and heating installation and maintenance in the North heating zone of the Habahe County seat (this is the zone benefiting from ADB investment under the Project)

To date no definitive details of the contractual relationship between Habahe County and the Heating Company have been made available.

Staffing Details:

Type	Number	Employment Status	Number	Education level	Number
Managerial	3	Permanent	24	Postgraduate	
Technical	9	Temporary		Graduate	
Financial	2			Other Technical Qualification	12
Others	10			High School educated	12
				Lower levels of education	
Total	24	Total	24	Total	54

Governance Arrangements:

- There is no Board of Directors and responsibility for governance arrangements therefore rest fully in the legal person.
- The Habahe Construction Bureau exercises supervision of the heating services provided by the Company. As a private enterprise the Company is subject to regulation/supervision by relevant departments of Habahe County Government.
- No information provided on internal regulations and procedures covering management, staffing, financial and technical/operational matters.
- Prepares enterprise financial statements; and
- Subject to financial inspection from the local Tax bureau and Price bureau

3. Habahe Tap Water Company

Type and Details of Organization:

- Corporation (Wholly State Owned)
- The Company is a legal person type company without a Board of Directors.
- Lu Shaobo is the legal person and General Manager.
- The Company is under the supervision of the County Construction Bureau.
- The date of formation was in 1990.
- Business License Number: 6543241000108

Paid-Up Capital: CNY1.2 million (\$180,000)

Licensed Business Scope: Tap-water production and supply, scope of business includes water supply and drainage management, installation and sales

Actual Business Scope: Water supply of the county, management of urban wastewater treatment and discharges, and installation of water supply and drainage

Staffing Details:

Type	Number	Employment Status	Number	Education level	Number
Managerial	2	Permanent	21	Postgraduate	
Technical	17	Temporary		Graduate	
Financial	2			Other Technical Qualification	6
Others				High School educated	15
				Lower levels of education	
Total	21	Total	21	Total	21

Governance Arrangements:

- The GM has no other positions either internally or externally.
- There is no Board of Directors and relevant government departments directly exercise supervision in accordance with established arrangements that apply to many SOE.
- Prepares enterprise financial statements; and
- Audited by the County Audit Bureau

4. Akeqi Town Urban Construction Maintenance Center

Type and Details of Organization:

- Public Institution
- An independent corporate body, wholly government owned
- Formed in 1993
- No details of corporate registration provided
- Supervised by the Habahe County Construction Bureau
- The paid up capital is CNY1.6 million (\$240,000).
- The legal person is Ge Yi.

Scope of Business: Urban environment and sanitation management, operation and maintenance for urban environment and sanitation facilities, urban facilities construction

Staffing:

Type	Number	Employment Status	Number	Education level	Number
Managerial	4	Permanent	105	Postgraduate	
Technical	8	Temporary		Graduate	
Financial	3			Other Technical Qualification	6
Others	90			High School educated	10
				Lower levels of education	89
Total	105	Total	105	Total	105

Governance arrangements:

- Adopts government accounting and is subject to audit by Habahe Finance Bureau
- Subject to government budgetary controls
- The legal person is also the Vice Party Secretary of Akeqi Town, but as the maintenance center does not operate on a commercial basis this does not appear to create any obvious conflict of interest.

Annex 5 Jimunai County – Project Institutional Arrangements

(A) Overall Project Management

In common with the other counties participating in the XAUIEIP, Jimunai County Government has established a project leading group and a project management office in order to coordinate and direct project preparation and implementation. The composition of these bodies is set out below:

Jimunai PLG

PLG Position	Host organization	Position in Host Organization
Leader	County Party Committee	Vice Secretary, Discipline Inspection Committee Secretary, Political and Legal Committee Secretary
Vice Leader	County Government	Vice Magistrate
Member	DRC	Director
	Finance Bureau	Chief
	DRC	Party Branch Secretary
	Construction Bureau	Chief
	Environmental Protection Bureau	Chief
	Traffic Bureau	Chief
	Water Resources Bureau	Chief
	Agriculture Bureau	Chief
	State Land Resources Bureau	Chief
	Forestry Bureau	Chief
	Audit Bureau	Chief
	Tuoputiereke Town	Party Secretary
	DRC	PMO Director
	Finance Bureau	Vice Chief

Jimunai PMO

PMO Position	Host Organization	Position in Host Organization
Leader	County Party Committee	Vice Secretary, Discipline Inspection Committee Secretary, Political and Legal Committee Secretary
Vice Leader	County Government	Vice Magistrate
Office Director	Construction Bureau	Chief
Office Vice Director	DRC	Director
	Finance Bureau	Chief
	Construction Bureau	Vice Chief
Staff	Construction Bureau	Planning Office Director
	DRC	Staff
	Finance Bureau	Enterprise Section Chief
	State Land Resources Bureau	Staff
	Construction Bureau	Planning Office Staff

(B) Assignment of Responsibilities

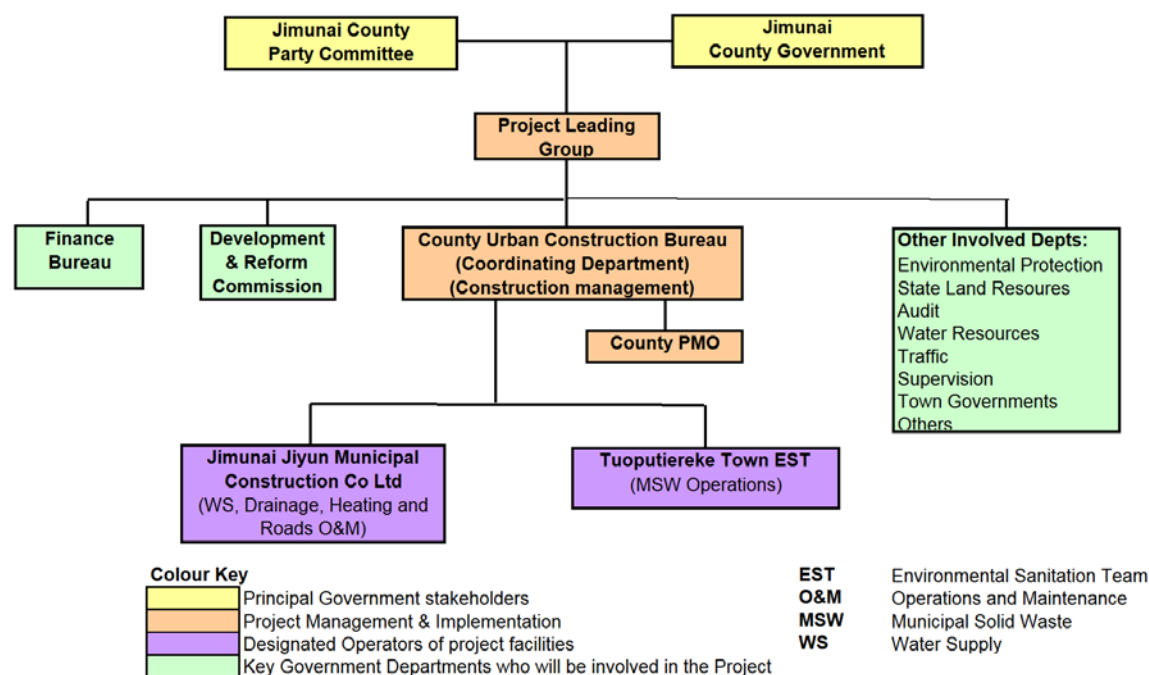
Jimunai County Government has assigned the Jimunai County Construction Bureau to assume the role of project implementing agency. In addition the following agencies have been assigned to be responsible for the operations phase of the individual sub-components in Jimunai County.

Water Supply – Jimunai County Jiyun Municipal Construction Co., Ltd

Drainage – Jimunai County Jiyun Municipal Construction Co., Ltd
 Roads – Jimunai County Jiyun Municipal Construction Co., Ltd
 Heating – Jimunai County Jiyun Municipal Construction Co., Ltd
 Solid Waste – Jimunai County Tuoputiereke Town Environmental Sanitation Team

An overview of the project management arrangements in Jimunai is set out below:

Project Organisation in Jimunai County



(C) Institutional Analysis of Individual Project Agencies

Each of the main project agencies is discussed below:

1. Jimunai County Construction Bureau

Type of Organization: Government Agency

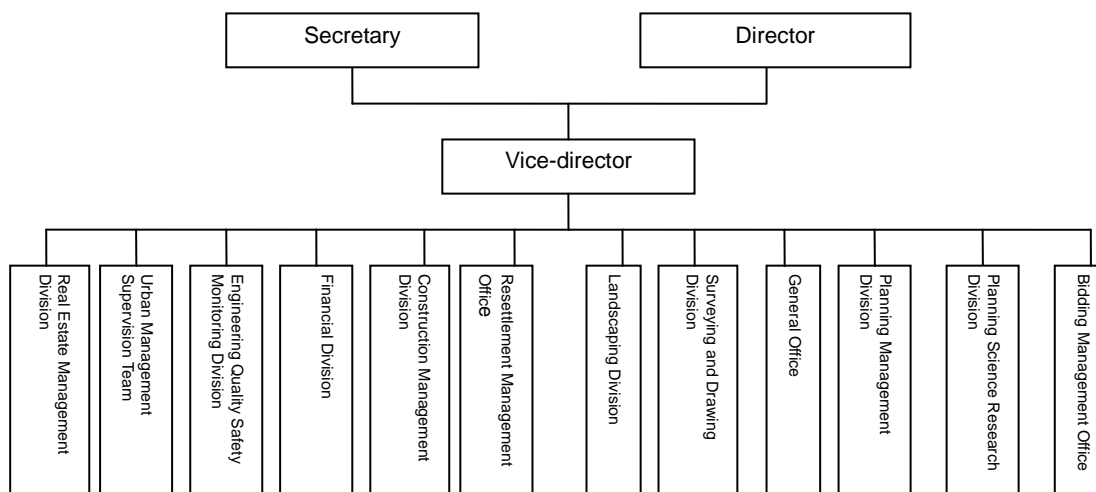
Reporting to: The People's Government of Jimunai County

Work Scope: Urban and rural construction, urban and rural planning, municipal construction, quality supervision, bidding supervision, city management, and real estate management

Staffing:

Type	Number	Employment Status	Number	Education level	Number
Managerial	10	Permanent	39	Postgraduate	
Technical	25	Temporary		Graduate	19
Financial	2			Other Technical Qualification	16
Others	2			High School educated	3
				Lower levels of education	1
Total	39	Total	39	Total	39

The organizational structure is as set out below:



Governance Arrangements:

- Subject to government accounting, budgetary and audit arrangements
- There are internal regulations and procedures covering management, staffing, and financial matters.

2. Jimunai County Jiyun Municipal Construction Co., Ltd

Type and Details of Organization:

- Corporation
- Wholly State Owned
- Xin Aijun is the legal person and Board Chairman.
- The date of formation was 10 June 2010.
- Business License Number: 654326050000708

Paid-Up Capital: CNY0.1 million (\$15,000)

Licensed Business Scope: Municipal public facilities management

Actual Business Scope: Company yet to become operational

Staffing Details: Currently only a core management staffing has been appointed. A staffing plan has been prepared that indicates a staffing level of 110 is needed for JJMC to discharge its anticipated O&M responsibilities. Most of these will be transferred from existing O&M units.

Governance Arrangements:

- There is a Board of Directors comprising Xin Aijun (chairman and legal person) together with Nie Guohua and Qi Huayuan, all of whom have been appointed by the County Government.
- JJMC will operate under the functional supervision of JUCB.
- Enterprise accounting will be adopted and the Company will be subject to government audit.
- JJMC will establish necessary internal rules and regulations.

3. Jimunai County Tuoputiereke Town Environment and Sanitation Team

Type and Details of Organization:

- Public Institution (an independent corporate body, wholly government owned)
- Registered as a public institution with Jimunai County Public Institution Registration Management Bureau (Certificate number 45844108-6)
- Supervised by the Tuopuretieke Town Government
- The legal person is Re Wan.

Business Scope: Environment and sanitation management for the whole county

Staffing:

Type	Number	Employment Status	Number	Education level	Number
Managerial	16	Permanent	14	Postgraduate	
Technical	2	Temporary	42	Graduate	
Financial	0			Other Technical Qualification	
Others	38			High School educated	
				Lower levels of education	
Total	56	Total	56	Total	

Governance arrangements:

- Adopts government accounting and is subject to local government audit
- Government financed and subject to the standard government budgetary control regime
- There are internal regulations and procedures covering management, staffing, and technical/operational matters.
- The legal person has no apparent conflicts of interest.

Annex 6 Qinghe County- Project Institutional Arrangements

(A) Overall Project Management

In common with the other counties participating in the XAUIEIP, Qinghe County Government has established a project leading group and a project management office in order to coordinate and direct project preparation and implementation. The composition of these bodies is set out below:

Qinghe PLG

PLG Position	Host organization	Position in Host Organization
Leader	County Government	County Standing Committee, Standing Vice Magistrate
Vice Leader	County Government	Vice Magistrate
Member	DRC	Director
	Finance Bureau	Chief
	Construction Bureau	Chief
	Audit Bureau	Chief
	Traffic Bureau	Chief
	Animal Husbandry and Veterinary Bureau	Chief
	Agriculture Bureau	Chief
	Forestry Bureau	Chief
	Water Resources Bureau	Chief
	Environmental Protection Bureau	Chief
	State Land Resources Bureau	Chief
	Qinghe Town	Town Chief
	Takeshiken Town	Town Chief
	Arele Township Government	Township Chief
	Areletuobie Township Government	Township Chief
	Saertuohai Township Government	Township Chief
	Chaganguole Township Government	Township Chief
	Agashiaobao Township Government	Township Chief

Qinghe PMO

PMO Position	Host Organization	Position in Host Organization
Leader	County Party Committee	County Standing Committee, Standing Vice Magistrate
Vice Leader	County Government	Vice Magistrate
Office Director	Construction Bureau	Construction Bureau Chief
Office Vice Director	DRC	Director
	Finance Bureau	Chief
	Takeshiken Town Government	Party Secretary
Staff	Finance Bureau	Staff
	DRC	Staff
	DRC	Staff
	Construction Bureau	Staff
	Takeshiken Town Government	Vice Town Chief

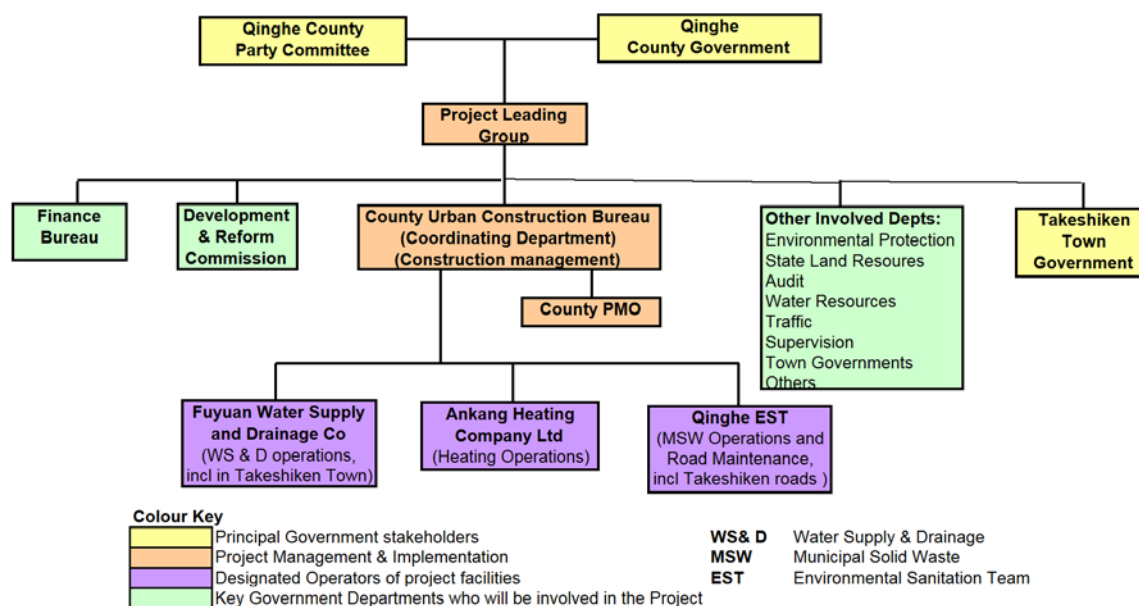
(B) Assignment of Responsibilities

Qinghe County Government has assigned the Qinghe County Construction Bureau to assume the role of project implementing agency. In addition the following agencies have been assigned to be responsible for the operations phase of the individual sub-components in Qinghe County.

County Water Supply – Qinghe County Fuyuan Water Supply and Drainage Co., Ltd
 County Drainage – Qinghe County Fuyuan Water Supply and Drainage Co., Ltd
 Takeshiken Town – Water Supply – IA for county water supply
 Takeshiken Town – Drainage – IAs for county drainage
 Centralized Heating – Qinghe County Ankang Heating Co., Ltd
 Solid Waste – Qinghe County Environment and Sanitation Team
 Takeshiken Town – Road – Qinghe County Environment and Sanitation Team

An overview of the project management arrangements in Qinghe is set out below:

Project Organisation in Qinghe County



(C) Institutional Analysis of Individual Project Agencies

Each of the main project agencies is discussed below:

1. Qinghe County Construction Bureau

Type of Organization: Government Agency

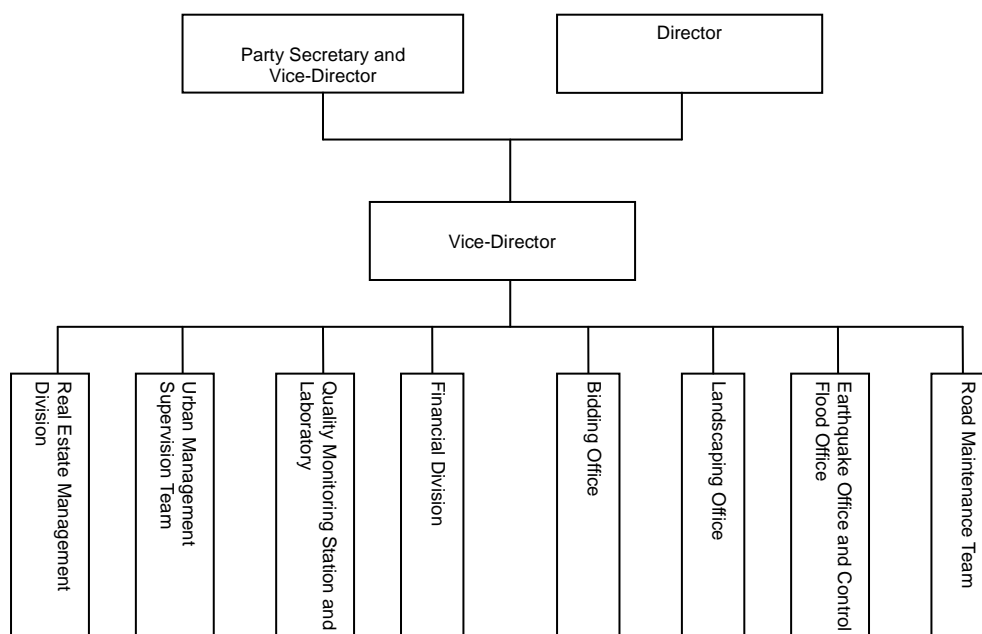
Reporting to: The People's Government of Qinghe County

Work Scope: Urban and rural construction, urban and rural planning, municipal construction, quality supervision, bidding supervision and management, afforestation, city management, and real estate management

Staffing:

Type	Number	Employment Status	Number	Education level	Number
Managerial	6	Permanent	46	Postgraduate	0
Technical	33	Temporary	0	Graduate	4
Financial	2			Other Technical Qualification	37
Others	5			High School educated	5
				Lower levels of education	0
Total	46	Total	46	Total	46

The organizational structure is as shown below:



Governance Arrangements:

- Subject to government accounting, budgetary and audit arrangements
- There are internal regulations and procedures covering management, staffing, financial and technical matters.

2. Qinghe County Fuyuan Water Supply and Drainage Company Limited

Type and Details of Organization:

- Corporation (Wholly State Owned)
- The Company is a legal person type company with a Board of Directors.
- Huang Jiangyun is the legal person and also Chairman & General Manager.
- The Company is under the supervision of the Qinghe County Construction Bureau.
- The date of formation was 21 March 2007.
- Business License Number: 6543251000086

Paid-Up Capital: CNY12.0353 million (\$1.77 million)

Licensed Business Scope: Tap-water production and sales, water supply and drainage installation

Actual Business Scope: Management and provision of urban water supply and drainage services

Staffing Details:

Type	Number	Employment Status	Number	Education level	Number
Managerial	3	Permanent	20	Postgraduate	
Technical	10	Temporary		Graduate	3
Financial	3			Other Technical Qualification	7
Others	4			High School educated	3
				Lower levels of education	7
Total	20	Total	20	Total	20

Governance Arrangements:

- The Chairman and GM have no other external positions.
- There is a Board of Directors comprising:

Name	Position	Position in Company	Nominated by
Huang Jiangyun	Chairman	General Manager	Construction Bureau
Yang Xiaolin	Director	Accountant	The Company
You Guanghui*	Director	Non -Executive	The Company

*Occupies the position of Director of the Town's State-owned Investment Company

- There are internal regulations and procedures covering management, staffing, financial and technical/operational matters.
- Prepares enterprise financial statements; and
- Is subject to government audit

3.Qinghe County Ankang Heating Co., Ltd**Type and Details of Organization:**

- Corporation (Wholly State Owned)
- The Company is a legal person type company with a Board of Directors.
- Yang Tianchang is the legal person and also Chairman & General Manager.
- The Company is under the supervision of the Qinghe County Construction Bureau.
- The date of formation was 4 September 2009.
- Business License Number: 654325030000226

Paid-Up Capital: CNY7.28 million (\$1.07 million)

Licensed Business Scope: Heating supply, heating pipeline installation, maintenance and heating materials sales

Actual Business Scope: As license permits

Staffing Details:

Type	Number	Employment Status	Number	Education level	Number
Managerial	3	Permanent	33	Postgraduate	
Technical	21	Temporary	9	Graduate	
Financial	2			Other Technical Qualification	22
Others	16			High School educated	6
				Lower levels of education	14
Total	42	Total	42	Total	42

Governance Arrangements:

- The Chairman and GM have no other external positions.
- There is a Board of Directors comprising:

Name	Position	Position in Company	Nominated by
Yang Tianchang	Chairman	General Manager	The Company itself
Wang Jieqiang	Director	None	Qinghe County State-owned Investment Co., Ltd
Jia Zhimei	Director	None	Qinghe County State-owned Investment Co., Ltd
Liang Xinyun	Director	None	Qinghe Construction Bureau

Li Zhenguo	Director	Vice GM	The Company itself
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Note: All four non-executive Directors occupy senior management positions in their nominating organizations.

- There are internal regulations and procedures covering management, staffing, financial and technical/operational matters.
- Prepares enterprise financial statements; and
- Is subject to government audit

4. Qinghe County Environment and Sanitation Team

Type and Details of Organization:

- Public Institution
- Unincorporated, wholly government owned
- Supervised by the People's Government of Qinghe Town

Business Scope: Urban environment and sanitation management and service provision.

Note: No mention is made in the formal business scope of the roads maintenance function that QEST is reported to be responsible for.

Staffing:

Type	Number	Employment Status	Number	Education level	Number
Managerial	4	Permanent	69	Postgraduate	
Technical		Temporary		Graduate	3
Financial				Other Technical Qualification	2
Others	65			High School educated	52
				Lower levels of education	12
Total	69	Total	69	Total	69

Governance arrangements:

- Adopts government accounting and is subject to government audit
- Under government budgetary control

Annex 7 Equipment Needs of Project IAs

(a) Buerjin

Name (type)	Number	Standard	Unit price (CNY) (estimate)	Total (CNY)
Computer	13	8 laptops 5 desktops	6,500 5,000	77,000
All-in-one machine with laser printing, copying and scanning	1		35,000	35,000
Color printer	1		22,000	22,000
Fax (all-in-one machine with laser printing and faxing)	1		3,000	3,000
Camera	1		5,000	5,000
Overhead projector	1		20,000	20,000
Filing cabinet	10		1,000	10,000
Motorcycle	5		8,000	40,000
Portable hard disk	2		800	1,600
Total				213,600

(b) Fuhai

Name (type)	Quantity	Standard	Unit price (CNY) (estimate)	Total (CNY)
Computer	12	8 laptops 4 desktops	6,500 5,000	72,000
All-in-one machine with laser printing, copying and scanning	1		35,000	35,000
Color printer	1	Can print A3	22,000	22,000
Fax	1		3,000	3,000
Camera	1		5,000	5,000
Overhead projector	1		20,000	20,000
Filing Cabinet	8		1,000	8,000
Motorcycle	5		8,000	40,000
Meeting equipment		Acoustics facilities, megaphones, microphones etc	30,000	30,000
Total				235,000

(c) Habahe

Name (type)	Quantity	Standard	Unit price (CNY)	Total (CNY)
Computer	12	7 laptops 7 desktops	6,500 5,000	80,500
All-in-one machine with laser printing, copying and scanning	1		35,000	35,000
Fax	1	All-in-one machine with laser printing and faxing	3,000	3,000
Camera	2	Canon digital camera	5,000	10,000
Overhead projector	1	With projector screen	20,000	20,000
Filing cabinets	10		1,000	10,000
Acoustics facilities	1	With three mobile microphones and two landline microphones	5,000	5,000
Color printer	1		22,000	22,000
Total				185,500

(d) Jimunai

Name (type)	Quantity	Standard	Unit price (CNY) (estimate)	Total (CNY)
Computer	13	6 laptops 6 desktops	6,500 5,000	69,000
All-in-one machine with laser printing, copying and scanning	1		35,000	35,000
Color printer	1		22,000	22,000
Fax (all-in-one machine with laser printing and faxing)	1		4,000	4,000
Digital camera	2		5,000	10,000
Overhead projector	1	With motor-driven projector screen	20,000	20,000
Filing cabinets	12		1,000	12,000
Motorcycle	6		8,000	48,000
Portable hard disk	4		800	3,200
Storage battery motorcycle	3		4,000	12,000
Total				235,200

(e) Qinghe

Name (type)	Quantity	Standard	Unit price (CNY)	Total (CNY)
Computer	12	5 laptops 7 desktops	6,500 5,000	67,500
All-in-one machine with laser printing, copying and scanning	1		35,000	35,000
Color printer	1	Can print A3	22,000	22,000
Fax	1	All-in-one machine with laser printing and faxing	3,000	3,000
Camera	2	Canon digital camera	5,000	10,000
Overhead projector	1	with projector screen	20,000	20,000
Filing cabinet	10		1,000	10,000
Motorcycle	6		8,000	48,000
Storage battery motorcycle	4		5,000	20,000
Acoustics facilities	1	With three mobile microphones and two landline microphones	5,000	5000
Portable hard disk	4		800	3,200
Total				243,700

Annex 8 Procurement Capacity Assessment – Completed Questionnaire

Part A. General Resource Assessment	Response
A.1. Is there a procurement department?	Yes
A.2. What procurement does it undertake?	Responsibility for Civil works, equipment, materials and TA
A.3. Are the staff provided with written job descriptions?	Yes
A.4. How many years experience does the head of the procurement unit have in a direct procurement role?	10 years
A.5. How many staff in the procurement department are:	
i. Full Time?	Two
i. Part Time?	None
i. Seconded?	4 persons
A.6. At what level does the department report (to the head of agency, deputy etc.)?	PMO Director
A.7. Does 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
A.9. Does the unit have adequate facilities such as PCs, internet connections, photocopy facilities, printers etc. to undertake the expected procurement?	Yes
A.10. Is there a procurement training program?	Yes
Part B. Procurement Processes: Goods and Works	
B.1. Has the agency undertaken foreign assisted procurement of goods or works recently (If yes funded by whom and name of the Project)	Yes, Engaged procurement for the Altay Kanas Scenic infrastructure and Altay City road construction projects (ADB funded)
B.2. If the above is yes, what were the major challenges?	The process proved more complex and lengthy compared to domestic procurement.
B.3. Is there a procurement process manual for goods and works?	Not specific to APMO, but the detailed procedures of Altay Construction Bureau are used. Tendering Company procedures and ADB guidelines will also apply.
B.4. If there is a manual is it up to date and does it cover foreign assisted procurement?	Not applicable.
B.5. Is there a systematic process to identify procurement requirements (1 year or more)?	Yes, prepared as part of the PPTA
B.6. Who drafts the specifications?	Design Institute prepares technical specification. Tendering Company provides the commercial part.
B.7. Who approves the specification?	IA (project owner) endorses and APMO approves.
B.8. Are there standard bidding documents in use and have they been approved for use on ADB funded projects?	Yes, but it is anticipated ADB will approve new documents for this Project.
B.9. Who drafts the bidding documents?	Tendering Companies with support from DIs (technical input) and the IAs
B.10. Who manages the sale of the document?	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?	Yes, according to the PRC laws and regulations it is 15 days
B.13. Does the bidding document state the date and time of opening and how close is it to the deadline for submission?	Yes, and bids are normally opened immediately after the submission deadline.
B.14. Is the opening public?	Yes

B.15. Can late bids be accepted?	No, will be automatically rejected
B.16. Can bids be rejected at bid opening?	Only bids that are late, incomplete or appear to have been tampered with can be rejected.
B.17. Are minutes taken?	Yes
B.18. Who may have a copy of the minutes?	Administrative supervision and management departments, project owners and all the bidders
B.19. Are the minutes free of charge?	Yes
B.20. Who undertakes the evaluation (individual(s), permanent committee, ad-hoc committee)?	Ad hoc committees in accordance with Altay Government procedures. Independent experts form the majority.
B.21. What are the qualifications of the evaluators in respect to procurement and the goods and works under evaluation?	High senior and professional titles as recognized within the PRC
B.22. Is the decision of the evaluators final or is the evaluation subject to additional approvals?	Evaluation results are the final results
B.23. Using at least three real examples how long between the issue of the invitation for bids and contract effectiveness?	At least three months, but can be longer
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?	No
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?	No
C.2. If the above is yes what were the major challenges?	Not applicable
C.3. Is there a procurement process manual for consulting services procurement?	The guidance of ADB will be followed. There is no supplementary manual.
C.4. Is the manual up to date and does it cover foreign assisted projects?	Not applicable
C.5. Who identifies the need for consulting services requirements?	EA in consultation with ADB
C.6. Who drafts the ToR?	EA, with ADB support
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 request for proposals?	APMO (will use tendering company, if needed)
C.9. Are assignments advertised and expressions of interest called for?	Yes, for ADB projects
C.10. Is a consultants' selection committee formed with appropriate individuals in terms of procurement and technical expertise?	Yes
C.11. What criteria are used to evaluate EOIs?	The PRC laws and regulations and ADB guidelines. The experience of the Consulting firm on similar assignments is the main factor.
C.12. Historically what is the most common method used (QCBS, QBS etc.)?	Quality and cost based selection
C.13. Do firms have to pay for the proposal document?	No
C.14. Do the evaluation criteria follow a pre-determined structure and are they detailed in the RFP?	Yes
C.15. Are pre-proposal visits and meetings arranged?	Yes
C.16. Are minutes prepared and circulated after pre-proposal meetings?	Yes.
C.17. To who are minutes distributed?	All short-listed bidders

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?	No
C.21. Are technical proposals opened in public?	No
C.22. Do the financial proposals remain sealed until technical evaluation is completed?	Yes
C.23. Are minutes of technical opening distributed?	No
C.24. Who determines the final technical ranking and how?	RFP scoring method used; the bid evaluation committee collectively will decide
C.25. Are the technical scores published and sent to all firms?	Yes, but only after financial opening and evaluation
C.26. Is the financial proposal open in public?	Yes
C.27. Are there minutes taken and distributed of financial proposal opening?	Yes
C.28. How is the financial evaluation completed?	Lowest bidder is awarded maximum score and others scored pro-rata as per the method documented in the RFP.
C.29. Are face to face contract negotiations held?	Yes
C.30. How long after financial evaluation is the selected firm invited to negotiate?	Publication of final tender evaluation results is normally after 3 days and within 10 days. For ADB procurement, an ADB "no objection" is first obtained.
C.31. What is the usual basis for negotiation?	Technical discussions followed by any required financial clarifications or adjustments
C.32. Are minutes of negotiation taken and signed?	Yes
C.33. How long after negotiations until the contract is signed?	Within 5 days
C.34. Are advance payments made?	Yes
C.35. Is there an evaluation system for measuring the outputs of consultants?	Yes
Part D. Process Oversight and Control	
D.1. Is there a standard statement 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 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?	Yes
D.4. Who approves procurement transactions and do they have procurement experience and qualifications?	APMO Director for the EA, and based on advice from specialists.
D.5. Which of the following actions require approval outside of the procurement unit or a permanent evaluation committee and who grants the approval?	Note: These approvals are based on advice of procurement specialists and mainly to confirm required procedures have been properly followed.
a) Bidding document, invitation to pre-qualify or request for proposal	Needs APMO approval
b) Advertisement of an invitation for bids, pre-qualification or call for expressions of interest	APMO approval
c) Evaluation reports	APMO approval
d) Notice of award	APMO approval
e) Invitation to consultants to negotiate	APMO approval
f) Contract award	APMO approval
D.6. Is contractual performance systematically monitored and reported upon?	Yes
D.7. Does the agency monitor and track its contractual	Yes

payment obligations?	
D.8. On average how long is it between receiving a firm's invoice and making payment?	According to the terms of the contract
D.9. What is the standard period for payment included in contracts?	No standard time limit
D.10. When payment is made late are the beneficiaries paid interest?	No
D.11. Are payments authorized by the same individuals empowered to approve invitation documents, evaluations and contracts?	No
D.12. Is there a written auditable trail of procurement decisions attributable to individuals and committees?	Yes
D.13. Are procurement decisions and disputes supported by written narratives such as minutes of evaluation, minutes of negotiation, notices of default / withheld payment?	Yes
D.14. Is there a formal non-judicial mechanism for dealing with complaints?	Yes-an independent complaints procedure established by Altay Government
D.15. 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?	Yes
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?	Yes
E.6. Are copies of invoices included with contract papers?	Copies of invoices will be retained separately.
E.7. For what period are records kept?	30 years

Annex 9 Detailed Scope of Work for the Capacity Building Work

The capacity building consultant will work primarily with APMO and the County IAs, but also with other agencies as required, and especially the designated O&M units, providing advice, assistance and where necessary training on the following:

Project Management and Implementation Support

- The development of comprehensive project implementation plans and procedures for monitoring and control
- The introduction of document control, design supervision, and contract management systems for the Project. This should utilize and adapt as necessary the arrangements set up for the earlier ADB urban environmental funded projects in Xinjiang.
- The review of designs, drawings and the bidding documents, including the identification of potential technical problems and suggesting means of resolving these, including the incorporation of environmental mitigation measures where appropriate
- Ensure that bidding documents include for contractors to provide equipment operating and maintenance manuals in Chinese and that training in equipment and maintenance is adequately provided for
- International Competitive Bidding (ICB), Local Competitive Bidding (LCB) and International Shopping (IS) contract procedures in accordance with the ADB's Guidelines on Procurement
- The development of reporting procedures to the ADB, including those covering construction progress, withdrawal and payment
- Exercising construction supervision and management including:
 - Approval of construction methods
 - ensuring work is undertaken according to the intent of contract specifications
 - control over construction quality
 - adherence to contract work programs and recovery of slippage
 - site health and safety procedures
 - record keeping systems to protect client interests in event of claims etc
 - claims assessment and determination
- Provide advice and support on asset commissioning and handover, including a review of documentation provided by the Contractors and that they have fully discharged their training obligations
- Provide advice and training on the establishment and operation of project accounting and disbursement procedures
- Provide advice and training on project financial controls, reporting and audit
- 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
- Undertake a review of the independent resettlement monitoring and reporting arrangements and the reports so produced. Recommend actions necessary to ensure compliance with approved resettlement plans
- 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
- Ensuring that requirements of the agreed social development action plan (SDAP) for the project, including the project impact on minorities are fully integrated into project monitoring systems. Provide advice on the implementation of the SDAP as required
- Assisting in periodic reviews of service cost recovery and monitoring progress made towards the strategic objective of full cost recovery in respect of the water supply, wastewater, and district heating and municipal solid waste services
- Identifying potential opportunities for private sector involvement in the Project operations and maintenance phase and, where necessary, advising the relevant project owners on how these could be implemented in practice

Operational Improvements

Specific tasks will include:

(a) Generic needs (potentially relevant to all sub-components)

- Provide advice on staffing required for the new/upgraded WTP and assist in the process of writing job descriptions and recruitment
- Review asset recording systems and provide advice on how these can be improved and integrated, including the application of GIS
- Review levels of service targets and systems for monitoring service performance and recommend changes/improvements
- Provide advice and support on the preparation of operational procedures
- Review maintenance arrangements, plans and procedure. Assess the adequacy of these and recommend improvements
- Undertake energy audits at each operational facility and recommend cost effective measures to reduce energy consumption where these are available
- Identify and make recommendations on any operational cost saving measures that present themselves

(b) Water Supply

- Advise on water quality control procedures, sampling and analysis
- Review arrangements the operation and maintenance of the water distribution network and for measuring levels of non-revenue water (NRW). Develop action plans to deal with NRW wherever this exceeds target levels and assist in their implementation
- Provide input to the Altay water/wastewater operations technical cooperation group to be formed under the Project (a forum of operational representatives to discuss common problems, issues and mutual support and cooperation)

(c) Wastewater Management

- Provide advice on WWTP process controls and monitoring requirements to allow consistent compliance with relevant effluent targets
- Review sludge disposal practices and provide advice if more cost effective and climate friendly approaches are feasible, taking account of sludge composition
- Review rates of effluent discharge for irrigation to avoid overspill to local watercourses and recommend suitable control procedures
- Investigate levels of surface water infiltration into sewers and assess the impact such infiltration is having on operational costs. Recommend remedial measures accordingly
- Review equipment and methods adopted for inspection and maintenance of the sewer network and recommend improvements as appropriate
- Review arrangements for wastewater source management, including permitting of discharges and record keeping. Consider and recommend appropriate improvements including improved inter-agency data-sharing and cooperation
- Provide input to the Altay water/wastewater operations technical cooperation group to be formed under the Project

(c) Roads

- Review existing arrangements for the maintenance of roads and related infrastructure and assess the changes needed to maximize the life of both existing and newly constructed roads
- Review existing road safety and accident prevention programs and recording systems of road accidents. Assess the effectiveness of existing arrangements and recommend appropriate improvements

(d) Municipal Solid waste

- Review arrangements for waste separation at source, at transfer stations and at the new landfills with a view to optimizing resource recovery and recycling and reducing the net volume deposited in the landfills (the 3R approach)
- Review the effectiveness of arrangements for the collection and disposal of hazardous household waste (e.g. batteries)
- Advise the local government departments on implementing and policing the compliance with State regulations concerning the collection and safe disposal of itemized materials
- Based on the above reviews, recommend improvements in the waste collection, sorting and treatment/disposal process including new local regulations, improvements in public awareness and possible incentive programs
- Provide input to the Altay MSW management forum for the exchange of views on local MSW issues and practice. (This forum is being created under the Project.)

(e) Central (District) Heating services

- Review existing operational practices and recommend relevant improvements including those in respect of:
 - Encouraging energy demand management by users
 - Energy efficiency of the centralized heating infrastructure

Improved Public Utility Management

Review management procedures and provide advice and support in the areas of

- Financial management, including budgetary control;
- Business planning and performance management
- Quality management systems
- Contractual arrangements between local government and private suppliers of utility services, especially in relation to central heating services.

Enhancing Public Awareness and Promoting Environmentally Friendly Behavior

- Review the results of the socio-economic survey undertaken during the PPTA and the records of other stakeholder consultations
- Hold selective supplementary stakeholder discussions and other public participation events to gain a more in depth understanding of stakeholder views on urban environmental issues and desirable behavior changes that should be promoted
- Use the results of the survey and consultations to design a detailed public education program to improve awareness in environmentally friendly and energy efficient living
- Assist in the implementation of the program, including the preparation of relevant public education material
- Suggest a mechanism for monitoring the effectiveness of the program

Enhancing Gender Awareness

- Hold consultations with local women's groups and review existing material/survey results to identify gender awareness issues
- Design and prepare a gender awareness program that incorporates the GAP developed and agreed during project preparations to respond to the identified issues
- Assist in the implementation of the program

Development of Community Health Program

- Hold discussions with local health officials to understand specific local health issues resulting from poor urban environmental conditions, and as a consequence of the project implementation (such as increased risk in HIV transmission)

- Identify the social groups most at risk from these health concerns
- Design a targeted community health awareness program based on these investigations
- Assist in the implementation of the program, including the preparation of relevant materials for promoting awareness
- Suggest a mechanism for monitoring the effectiveness of the program

Economic Development

- Undertake a brief desk study of socio-economic conditions in the project area and make a site visit to the area to view local conditions
- Customize and deliver a series of workshops on the establishment and development of small business ventures, focusing especially on key success factors and the common reasons for small business failure
- Hold a series of one to one consultations with small business owners and those considering a business start-up offering appropriate advice and suggestions
- Conduct follow up visits and individual consultations and conduct more detailed workshops on specific topics relevant to small business success (e.g. relevant laws and regulations, obtaining finance, marketing, business planning, cash flow management etc)

Training

Training is a critical cross-cutting theme relevant to all aspects of the capacity building work and the appointed consulting company will be expected to ensure that appropriate training is provided in a timely manner so that consulting inputs have maximum effect. Thus consulting work plans and the training program must be fully coordinated. Specific tasks necessary to ensure training resources are effectively used include:

- In consultation with APMO and the IAs, to review the training needs identified during the PPTA and identify any specific supplementary needs; based on this analysis prepare a detailed training plan and implementation program for APMO and ADB approval
- Support APMO and the other relevant agencies in the implementation of the training program (once approved)
- At the mid term point of the Project and in full consultation with the project stakeholders, undertake an interim review of training provided under the capacity building program and recommend adjustments to the training plan as necessary
- Use this review to also assess the effectiveness of capacity building measures generally and make recommendations accordingly to deal with these findings, together with any supplementary capacity building needs that might have been identified during the course of project implementation
- At the completion of the loan consulting undertake a further review of training provided, its effectiveness and lessons learned, the results of such review to be included in the final report of the loan consulting

Annex 10 Detailed Capacity Building Budget (with Assumptions)

1. Overall Summary

Item Description	Unit	Number	Unit Cost	Estimate	Notes reference
International consulting fees	Month	16	12,000	192,000	
International Per Diem	Month	16	2,000	32,000	
International Travel	Trip	12	1,500	18,000	1
National consulting fees	Month	143	2,800	400,400	2
National Per Diem	Month	143	600	85,800	3
National Travel	Trip	85	300	25,500	3
Office Equipment for consultants				20,000	
Office rental for consultants	Month	48		48,000	4
Office support	Month	48		24,000	4,5
Surveys & consultations				20,000	
Publicity material				10,000	
Local Travel				24,000	
Contingency				300	14
Sub Total for Consulting				900,000	
IA Equipment				170,000	6
Training				400,000	7
Sub Total				570,000	
Advance Support	Month	6	5,000	30,000	8
Overall Total				1,500,000	

2. Analysis of Consulting Inputs

Expertise	International		National		Notes
	Months	Trips	Months	Trips	
Implementation & O&M Capacity Building					
Team leader/deputy	12	8	36	12	9
Procurement	1	1	12	6	10
Financial	0	0	8	8	
IST & capacity building	0	0	8	8	
Environmental	0	0	8	8	
Resettlement	0	0	8	8	
PPMS & Social	3	3	12	8	11
Traffic management/Road safety	0	0	4	2	
Water Supply Operations	0	0	3	2	
Wastewater Operations	0	0	8	4	
Solid Waste Management	0	0	8	4	
District Heating	0	0	4	2	
Sub-Total	16	12	119	72	
Social & Public Awareness					
Environmental	0	0	6	3	
Gender	0	0	3	2	
Health	0	0	3	2	
Sub-total	0	0	12	7	
Economic Development					
Small Business Advisor	0	0	12	6	12

Overall Total	16	12	143	85	
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3. IA Equipment Procurement Estimate

County	CNY Estimate	\$ Equivalent	Notes
Buerjin	213,600	32,364	13
Fuhai	235,000	35,606	13
Habahe	185,000	28,030	13
Jimunai	235,200	35,636	13
Qinghe	243,700	36,924	13
Contingency	9,500	1,440	14
Total	1,122,000	170,000	

4. Notes and Assumptions

1. This estimate assumes some travel will be from within China as it is likely the team leader would be PRC based.
2. In practice the rates of national experts will vary quite significantly depending on their discipline and seniority, but \$2,800 per month is considered a reasonable assumption for the average rate.
3. These estimated unit rates assume 50% of national consultants are Xinjiang based.
4. The main parts of the consulting services are assumed to be provided over a 4 year period. There may be a need for TL/DTL and PPMS inputs at the end of year 5 to help with project completion reporting, but no need to maintain a full time office in year 5.
5. Employment of an office secretary with English language skills
6. Estimates provided by individual counties as contained in Annex 7 and with costs as summarized in the table above
7. This is a lump sum provision based on the overall budget breakdown agreed with XPMO and APMO for equipment and training to be financed under the loan.
8. Advance support will need one or more senior national consultants. Six months of total input time at a unit cost of \$5,000 are assumed. The main expertise should be in design review and procurement.
9. The team leader would be expected to spend approximately six months in the field in year 1 and then two months in each of years 2 and 3 and one month in years 4 and 5. The DTL would be full time for 18 months and then part time thereafter.
10. One month international time is assumed to be required to advise APMO on setting up procurement systems and also to ensure model bidding and contract documents fully comply with ADB procurement guidelines and the specific requirements of the project specific covenants. It is possible the advance support consultant(s) could do this work, in which case this international procurement provision could be re-assigned either to the TL or to national consultants wherever it is found the greatest need exists.
11. It is assumed the international consultant would need to make three inputs, one at the project inception to establish the PPMS, a second (short) input at project mid term, and a third input to undertake the social assessment needed for project completion reporting.
12. It is assumed that half-yearly visits (two months duration) be made over a three year period.
13. An exchange rate of \$1 = CNY6.6 is assumed.
14. These contingency figures are simply inserted for rounding purposes.