

TAR: PRC 39134

Technical Assistance to the
People's Republic of China for
Nanjing Water Utility Long-Term
Capital Finance in Commercial
Markets (Cofinanced by the
Cooperation Fund for the Water
Sector)

June 2005

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 1 June 2005)

Currency Unit	–	yuan (RMB)
RMB1.00	=	\$0.1208
\$1.00	=	Y8.2766

ABBREVIATIONS

ADB	–	Asian Development Bank
NCIC	–	Nanjing Urban Construction Investment Holding (Group) Co Ltd
NDRC	–	National Development and Reform Commission
NMG	–	Nanjing Municipal Government
NPUC	–	Nanjing Public Utilities Company
NWSG	–	Nanjing Water Services Group Limited
SWAOD	–	Shanghai Water Assets Operation and Development Commission
TA	–	technical assistance

TECHNICAL ASSISTANCE CLASSIFICATION

Targeting Classification	–	General intervention
Sector	–	Law and public sector management
Subsector	–	Subnational government
Themes	–	Sustainable economic growth, governance
Subthemes	–	Promoting economic efficiency and enabling markets, public governance

NOTES

- (i) The fiscal year of the Government ends on 31 December.
- (ii) In this report, "\$" refers to US dollars.

This report was prepared by a team consisting of S. Wermert (team leader) and L. Sabyrova.

I. INTRODUCTION

1. To further its policy on strengthening the commercial and financial capacities of water and infrastructure utilities, the Government of the People's Republic of China (PRC) has requested the Asian Development Bank (ADB) to provide technical assistance (TA) to build the capacity for a corporate utility bond issue to fund water and environmental sector projects in Nanjing. The fact-finding mission that was conducted from 1 to 7 March 2005 reached an understanding with Nanjing Urban Construction Investment Holding (Group) Co Ltd (NCIC) on the TA objectives, scope, financing, and implementation arrangements.¹ The design and monitoring framework is in Appendix 1.

2. Consistent with the Agreement Establishing ADB, the Government of the People's Republic of China will be requested to confirm that it has no objection to the proposed TA. In addition, the Government will be asked to confirm that Section 3.02 (b), and the assurances relating to the extension of privileges, immunities and exemptions of ADB consultants in paragraphs 7 through 9 of the Schedule to the Technical Assistance Framework Agreement, dated 23 December, 1996, between the Government and ADB apply to any ADB consultants under the TA (Extended No-objection). No activities under the TA will commence and no TA consultant will be contractually engaged by ADB unless and until the Government Extended No-objection has been attained.

II. ISSUES

3. The established practice in large PRC cities has been for water supply services to be provided by a water supply utility company, and this has been the case in Nanjing with the Nanjing Tap Water General Company originally established in 1929. In contrast, wastewater services have traditionally been provided by government departments or government agencies. Over the last 5 years, as part of the broader transition from a planned to a market economy, the national Government policy has been changing in respect of the role of the government and how public services should be delivered. The government at all levels has and is continuing to undergo reforms that involve downsizing and the government role is changing from service provider to service facilitator and regulator. Part of this policy shift has been to encourage the establishment of enterprise companies to manage and deliver wastewater services, a service that is often best undertaken through an integrated water and wastewater services company. A combined utility company will result in (i) economies of scale to facilitate the ongoing import of new technology; (ii) cost savings via common maintenance, materials management, laboratories, and other support services for both component businesses; and (iii) access to capital markets in the PRC, which are currently open mainly to large-scale borrowers.

4. The Government is actively trying to promote the expansion and efficient operation of its domestic currency bond market. However, any reforms to open the market need to reinforce government policies to restrict market access to borrowers with a good credit risk profile. This move will allow a broad range of bond market investors, including insurance companies, commercial banks, trust companies, and investment managers (acting on behalf of pension funds) to invest in corporate bonds based only on the credit of the issuer. In recent years, urban utilities have not been among successful applicants for bond issues in the PRC. In this vein, it will be important for the comfort of both regulators and the investor markets that the first such bond issuers are able to demonstrate professional management, transparent financial reporting, high credit ratings from international agencies with operations in the PRC, and utility revenue

¹ The TA first appeared in *ADB Business Opportunities* (Internet edition) on 29 March 2005.

bond structuring in line with international standards. While ADB continues to support bond market development via technical assistance to the Government and is planning to act as a bond issuer in its own right in the RMB bond market, its most significant contribution to the supply side of the market would be the support of a high quality bond issuer in the key urban utility sector.

5. In accordance with national policy, the Nanjing Municipal Government (NMG) established NCIC in November 2002 as a holding company to own and manage a wide range of construction-related businesses formerly run directly by the Government. NCIC continues to be wholly owned by NMG and works in close cooperation with its owner in the development of urban infrastructure. Recently, NCIC decided to create a parent company for its water and wastewater businesses, with the expectation that commercial and financial synergies can be achieved. In creating such a new company structure, both NCIC and NMG are cognizant of the central future role that such a company (to be called Nanjing Water Services Group Limited [NWSG]) can play in future financing of the water and environment sectors.² NWSG, as other water utilities in the PRC, will have limited capital-raising alternatives to meet dramatically increased funding requirements. Large urban utility companies will, in the future, be expected to be entirely responsible for their own financing without reliance on central, provincial, or even municipal government financing. In this environment, commercial bank loans will be expected to be the prime source of recurring financing for capital projects. Over time, however, high domestic bank liquidity cannot be assumed, and improving domestic bank credit culture would be expected to severely restrict lending to water/wastewater enterprise companies unable to show credit strength on a stand-alone basis. Therefore sustainable access by NWSG and other Nanjing utility companies to bond markets rather than commercial bank markets alone is critical. Bond market finance has an additional advantage over commercial bank finance inasmuch as it is frequently provided on a long-term fixed-rate basis. This is particularly important to water sector utilities that have a long utility asset average life and require protection of a low-margin business from significant interest rate volatility.

6. PRC laws and regulations governing corporate bond approvals by the National Development and Reform Commission (NDRC) requirements include 3 years' profitable operations. As the newly established NWSG has urgent funding needs and cannot meet this requirement, the likely issuer of the bonds would be a multiple utility business company that is either a parent or an affiliate company for NWSG.³ The TA, however, would assume that (i) the bond issue funds only NWSG project costs; and (ii) NWSG would agree to follow international standards for utility revenue bond covenants for loan repayment, anticipating its status as an independent issuer following 3 years of profitable operations. The TA further assumes that NWSG will benefit from experience of bond issuance by a parent company for use at the time when it can eventually issue its own bonds. PRC regulations also give reassurance in this respect, as proceeds from bond issues can be assigned only to specific nominated projects and is not used as general working capital by the bond issuer.

7. The challenge of raising long-term bond finance requires that NWSG have in place management capacity, an organization structure, and corporate governance that are in line with international best practices. NWSG's relatively recent formation makes for good timing of effective and sustainable implementation of advice given in this area. Enhancing capacity to

² NWSG is expected to be one of the implementing agencies for the proposed public sector project loan for environmental improvements in Nanjing.

³ Nanjing Public Utility Company (NPUC) is the proposed bond issuer. This will be confirmed during the TA and will be based on the TA findings.

raise finance via corporate utility bond issue would provide a strong incentive. As the PRC moves closer to international bond markets standards, utilities would be expected to demonstrate long-term stability and operate relatively free from day-to-day political interference or controversies concerning rate-setting policies. This is underpinned by the long-term maintenance of professional financial management and planning practices, affordable tariff rates, manageable and well-planned capital programs, and segregation of enterprise business finances from those of the general government.⁴

8. While municipal governments in the PRC do not have authority to issue general purpose municipal bonds, in part due to perceived lack of transparency of municipal government finances, progress is being made toward future authorization of bond issues of single-purpose utilities. One major water utility bond issue is already in preparation in Shanghai under a United States Trade and Development Agency technical assistance grant.⁵ The bond market (unlike the current bank market) would be expected to introduce discipline under a system of investor mandated detailed regular credit reviews. The introduction of credit rating agencies with global utility specialists into the bond issuance provides an independent reviewer, without business interests tied to a near-term successful bond issue outcome. Currently, under NDRC regulations, domestic credit ratings from an accredited PRC agency are required. However, domestic credit rating agencies do not presently have deeply specialized utility rating units and have in the past outsourced training and used periodic technology transfer arrangements directly or indirectly from international credit rating agencies⁶ for specialized borrower classifications (such as utilities). For pilot utility bond issues such as that being contemplated in Nanjing, direct international rating agency involvement would bring the advantage of subjecting utilities to international rating standards thereby improving in water utility finance and management standards. Their ability to deliver ratings would allow the private investor base⁷ to be expanded to more conservative long-term investors with typically strict prudential portfolio requirements that restrict bond holdings to issues with minimum specified investment grades.

9. At present, with Shanghai Water Assets Operation and Development Commission (SWAOD)—the only major urban water utility company to be seriously considered by NRDC for bond approval—the path for a transparent approval process for local government utility company bond issues in the PRC is unclear. Thus, there is a critical need to carefully prepare another major pilot project in this sector, not only to incorporate lessons learned from the SWAOD model and improve on it, but also to use the Nanjing example as a means of engaging in further dialogue with central Government regulatory authorities regarding official and unofficial approval criteria. With transparent criteria established and the factors influencing probability of approval better understood, an increasing number of other major urban utilities in the PRC could have the incentive to invest in highly professional upstream preparation of corporate utility bond issues.

10. The proposed TA is consistent with ADB's PRC Country Strategy and Program (2004–2006)⁸ to assist in the development of an enabling environment for private sector development and facilitation of efficient markets.

⁴ Fitch Ratings. 2004 *Water and Sewer Revenue Rating Guidelines* 13 April. New York.

⁵ At the time of the Fact-Finding Mission, the bond issue of SWAOD was endorsed by the provincial-level Shanghai Development and Reform Commission, but was not yet approved by the national-level NDRC.

⁶ Moody's Investors Services, Standard & Poor's, and Fitch Ratings. each of which is in process of setting up wholly owned operations in the PRC.

⁷ Investor classifications include commercial banks, insurance companies, trust companies, and investment managers representing pension funds.

⁸ ADB. 2003. *The People's Republic of China: Country Strategy and Program (2004–2006)*.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

11. This advisory TA will develop sustainable access of Nanjing utilities to private long-term capital finance markets. The objectives of the TA are to (i) assist in management structuring, development of corporate governance best practices, and overall capacity building for NWSG as a newly formed integrated water utility; (ii) support the development of NWSG's accounting and auditing practices consistent with best international practices; (iii) assist NWSG in developing a management, planning, and financial information documentation system necessary for initial and ongoing interface with credit rating agencies; (iv) increase the transparency of approval procedures for future utility bond issuers through ongoing dialogue between Nanjing bond issuer and central Government agencies; and (v) structure a utility bond issuance for distribution to a multiple and diversified private investor base. The TA will also support the financial management and overall capacity of NCIC/NPUC. The TA will build on the experience of work in Shanghai by SWAOD, particularly in its development of a long-term capital financing strategy including utility revenue bond issuance. Dialogue and cooperation with the US Trade Development Agency (USTDA) will examine the lessons learned from the SWAOD model. The TA will contribute to the building of a private market credit culture, which recognizes and rewards local government utility companies able to consistently transmit professionally assembled transparent information to credit rating agencies and markets.

B. Methodology and Key Activities

12. The TA will have three components: capacity building for the newly formed integrated water utility (component A), sustainable credit rating agency interface (component B), and support for implementation of a long-term capital finance plan with focus on preparing a pilot bond issue (component C).

13. Component A will assist in developing the management and corporate governance structure for the new integrated utility company. Major emphasis will be given to a transparent financial reporting system with the objective of producing audited financial statements in line with international standards for NWSG and other relevant subsidiaries within the NCIC group. As part of an overall corporate governance structure, sustainable measures such as transfer pricing mechanisms and detailed expenditure allocation would be developed to support the independent management and operations of NWSG and NPUC.

14. Component B will assist in developing a system of commercial planning and financial discipline associated with third-party credit rating agency analysis undertaken in line with international best practices. At an early stage, focus will be on feedback to NWSG and NPUC under an informal "shadow" credit rating process, using one or more of three top tier global rating agencies. Following such a process, NWSG and NPUC will rectify key areas identified during the TA on the basis of feedback reports. It should be noted that international best practices for utility credit ratings extend to a wide range of analysis well beyond static measurement of recent financial performance.⁹ Finally, NWSG and NPUC will be assisted in preparing an initial package of presentation materials for formal rating agency application. It is expected that separate ratings will be sought on the independent credit strength of NWSG and

⁹ For example, Fitch Ratings. *Water and Sewer Revenue Rating Guidelines*. New York. April 13, 2004. include 10 criteria: service area, customer growth and concentration, capacity, compliance with environmental laws and regulations, capital demands and debt policies, covenants, charges and rate affordability, coverage and financial performance, cash, and balance sheet considerations and management.

NPUC. The TA will support the credit rating process for NWSG and NPUC only, and not extending to the credit rating attached to the credit of a bank guarantor.

15. Component C recognizes the importance of using an incentive-based philosophy, in which progress that was made in earlier components of the assignment would lead the TA to support, in its final stage the execution of detailed commercial and legal arrangements for borrowing. The TA will assist in policy dialogue at the central Government level on the necessary legal clarifications on bond security issues and other matters related to approval of bond issuance and potential exchange listing. Other tasks will include development of bond legal documentation and clear definition of security rights vis-à-vis other existing and future creditors.

16. Components A, B, and C are expected to be undertaken sequentially. However, dialogue with rating agencies under component B and central Government approval entities under component C will be required at an early stage of the TA. To assess the results of the TA activities, a series of performance indicators and milestones will be established as a baseline at the start of the TA and will be monitored throughout its duration.

C. Cost and Financing

17. The total cost of the TA is estimated at \$690,000 equivalent, comprising \$243,000 in foreign exchange and \$447,000 equivalent in local currency. The Government has requested ADB to finance the entire foreign exchange cost and \$307,000 equivalent of the local currency cost, amounting to \$550,000 equivalent. The TA will be financed by ADB on a grant basis from ADB's TA funding program; \$110,000 of ADB funding will be provided by the ADB Cooperation Fund for the Water Sector. The Government will finance the balance of the local currency cost equivalent to \$140,000, through the provision of office accommodation, local transport, counterpart staff, workshops, and payment in part of certain credit rating fees. The detailed cost estimates and financing plan are in Appendix 2.

D. Implementation Arrangements

18. The Executing Agency for the TA is NCIC. The NCIC will establish a project office to house the consultants and administrative support funded under the TA. The NCIC will designate an individual to coordinate with the consultants and will set up a steering committee to provide guidance and oversee the implementation of the TA.

19. The TA will be implemented by an international consulting firm over a period of 12 months, starting in September 2005 and ending in September 2006. The TA will require approximately 22 person-months of consulting services in the accounting and legal fields, institutional capacity building, preparation for approvals, and engineering review. The consultants will be recruited through an international firm (about 10 person-months international and 12 domestic). The international firm will associate with a domestic firm that is officially qualified to prepare corporate bond issuance applications in the PRC. The domestic firm will serve as principal interlocutor with NCIC and government approval authorities with respect to tasks in the terms of reference directly relating to the bond approval process. Rating agency services will be contracted separately using a direct selection process.¹⁰ One of the international consultants will be the team leader, responsible for all aspects of TA implementation. The

¹⁰ Rating should be undertaken, if possible, by one of the three top global municipal ratings firms via their existing or to-be-established PRC subsidiaries. The limitation to these three leading firms provides the rationale for direct selection.

quality-based selection (QBS) method will be used in recruiting consultants because of the multidisciplinary nature and complexity of the required tasks, and alternative methods and mix of expert skills for carrying out the TA. Noting this, along with the fact that this is a relatively new TA sector for ADB, relatively few qualified consultants are expected to bid for this type of work and there is a genuine risk that a cost-based approach would lead to the selection of a firm that would be inappropriate for the assignment. QBS will be carried out in accordance with ADB's *Guidelines on the Use of Consultants*, and other arrangements satisfactory to ADB for selecting domestic consultants. Outline terms of reference for consulting services are in Appendix 3. All procurement under the TA will be in accordance with ADB's *Guidelines for Procurement*.

20. Reports will include an inception report including the work plan and key milestones (at the end of month 1) and quarterly progress reports, culminating in a final report at the end of the TA. A number of special activity reports will be prepared, based on inputs from specialists and consultants. They will be referenced and included in the progress and final reports.

IV. THE PRESIDENT'S DECISION

21. The President, acting under the authority delegated by the Board, has approved (i) ADB administering a portion of technical assistance in an amount not exceeding the equivalent of \$110,000 to be financed by the Cooperation Fund for the Water Sector on a grant basis, and (ii) ADB providing the balance not exceeding the equivalent of \$440,000 on a grant basis, to the Government of the People's Republic of China, for the purpose of the Nanjing Water Utility Long-Term Capital Finance in Commercial Markets, and hereby reports this action to the Board.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/ Indicators	Data Sources/ Reporting Mechanisms	Assumptions and Risks
Impact			
Financial independence of sub-sovereign infrastructure entities and water utilities to access bond markets	Pilot bond issue by Nanjing utility company for replication in other cities (2006–2008)	Technical Assistance (TA) completion review	Assumption Market deregulation will allow bond purchasers to give lower interest rates to better run utilities that prepare bond issues professionally.
Outcome			
Sustainable long-term access to Nanjing utilities of private long-term capital finance markets, which will provide predictable financial resources to fund timely capital improvement to support the delivery of water and wastewater services to customers	International credit rating is satisfied with accounting standards being used and with corporate governance/management practices (2006/ 2007).	Formal rating notification from international agency including satisfactory report language on financial reporting, governance and management	Assumption National Development and Reform Commission (NDRC), regulatory authorities, and investor market require high-quality utility ratings. Risk Officials in-charge of preparation for future bond issues may not replicate initial pilot project process.
Outputs			
Component A: Capacity Building for Newly Integrated Water Utility and Bond Issuer			
1. Nanjing Water Services Group Limited (NWSG) and bond issuer improve financial reporting and accounting systems in line with international accounting standards	Preparation of audited NWSG and bond issuer financial statements for fiscal year 2005 with extensive guidance of TA recommendations	Opinion letter(s) from accountants to NWSG and bond issuer indicating that, for fiscal year 2005, NWSG and bond issuer have met suggestions of TA for phase in of program to meet international standards for financial statements	Assumptions NWSG and bond issuer staff sustain the new systems and skills. NWSG and bond issuer existing and future accounting firms have sufficient experience with international standards.
2. Corporate governance and management of NWSG are in line with best international practices for integrated water utilities	Preparation of corporate governance standards and management structure for NWSG in line with TA consultant recommendations	Adoption of or modification of NWSG articles of incorporation or other documents governing NWSG governance and management	Risk NWSG does not adhere to its own rules and regulations.

Design Summary	Performance Targets/ Indicators	Data Sources/ Reporting Mechanisms	Assumptions and Risks
Component B: Preparing Sustainable Credit Rating Process			
NWSG and bond issuer are trained to interface with top tier credit rating agencies for individual ratings application process.	NWSG and bond issuer provide realistic and adequate responses to identified credit weakness indicated by rating agency during shadow credit rating process.	Investment grade or better formal credit rating received for bond issuer and satisfactory informal grading received from rating agency for NWSG credit standing	Risk Role of top tier international rating agencies may be undermined by market willing to accept less experienced rating agencies based on lower pricing—with resulting failure to incorporate international best practices into the People’s Republic of China utility rating technology.
Component C: Pilot Project Preparation			
1. Regulatory approvals achieved with good understanding of factors governing approval process	TA consultant interviews NDRC and provides assessment of formal and informal requirements for approval as applied to Nanjing.	Bond issue approvals	Risks Central Government uses macroeconomic or other rationale unrelated to issuer credit quality to restrict issuance.
2. Bond issue completed using international practices	Pilot transaction is completed within 1–2 year time frame.	Bond closing	The above risk of regulatory approval is main risk outside the control of bond issuer.
Activities/Inputs			
Workshops (i) Internal workshops would be held to communicate progress (ii) One or more external workshops would be held to communicate replicability of pilot project			Assumption External workshops would be delayed until bond issuance is completed,
Activities with Milestones			Inputs ADB: \$550,000 Government: \$140,000
Component A			
1.1 Recommendation on merger			
(October 2005)			
1.2 Assessment of reporting			
(December 2005)			
1.3 Business strategy report			

Design Summary	Performance Targets/ Indicators	Data Sources/ Reporting Mechanisms	Assumptions and Risks
<p>(January 2005)</p> <p>1.4 International reporting standards recommendation (December 2005)</p> <p>1.5 Cash flow projection for NWSG (January 2006)</p>			
Component B			
<p>2.1 Utility revenue bond structure (March 2006)</p> <p>2.2 NWSG borrowing plan (March 2006)</p> <p>2.3 Rating Information package (April 2006)</p>			
Component C			
<p>3.1 Applicable rules and regulations (January 2006)</p> <p>3.2 Bond buyer Impediments (February 2006)</p> <p>3.3 Risk matrix (February 2006)</p> <p>3.4 Review of applicable use of ADB private sector operations (June 2006)</p> <p>3.5 Criteria for selection of debt arrangers / underwriters (June 2006)</p>			

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Foreign Exchange	Local Currency	Total Cost
A. Asian Development Bank Financing^a			
1. Consultants			
a. Remuneration and Per Diem			
i. International Consultants	200.0		200.0
ii. Domestic Consultants		43.0	43.0
b. International and Local Travel	18.0	11.0	29.0
c. Reports and Communications		20.0	20.0
2. Office Equipment ^b		14.0	14.0
3. Surveys (shadow ratings + formal ratings ^c)		150.0	150.0
4. Miscellaneous Administration and Support Costs		16.0	16.0
5. Representative for Contract Negotiations		5.0	5.0
6. Contingencies	25.0	48.0	73.0
Subtotal (A)	243.0	307.0	550.0
B. Government Financing			
1. Office Accommodation and Transport		55.0	55.0
2. Remuneration and Per Diem of Counterpart Staff		20.0	20.0
3. Others (including workshops and formal credit rating costs)		65.0	65.0
Subtotal (B)		140.0	140.0
Total	243.0	447.0	690.0

^a The amount of \$440,000 is financed by the Asian Development Bank's (ADB) technical assistance funding program and \$110,000 by the ADB Cooperation Fund for the Water Sector.

^b Includes a minimum of two pentium computers, one photocopier, one scanner, two laser printers, and one facsimile machine.

^c Fifty percent of any formal rating costs, if an international rating agency registered in the People's Republic of China is used with the remaining amount to be paid through counterpart funding.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1. The technical assistance (TA) will have three components. The consultants' tasks are listed under each component.

A. Capacity Building for Newly Integrated Water Utility and Bond Issuer (Component A)

2. The consultants for component A will carry out these specific tasks:

- (i) Undertake a general review and assessment of NWSG operations (including those of its subsidiaries) and capacity for project execution and operations. Review basic NWSG corporate governance arrangements at board and management levels and give practical recommendations for improving structure and staffing, and strategic-level internal controls.
- (ii) Review relationships and appropriate allocation of responsibilities between NWSG and water and wastewater company subsidiaries. Review the viability of the merger of wastewater subsidiaries and, if such merger is recommended, suggest a timetable for the merger as a possible "critical path" item on the schedule for corporate utility bond issue.
- (iii) Assess the existing financial reporting culture within NWSG's subsidiary companies and Nanjing Public Utilities Company (NPUC)¹ identifying specifically the areas that need improvement in financial and management accounting, record keeping, reporting, auditing, and internal controls.
- (iv) Agree on a business development strategy and 5-year capital improvement plan with NWSG.
- (v) Suggest the best means for NWSG and NPUC to adopt the use of international public accounting standards and a phase-in of standards if necessary.
- (vi) Organize informal discussions with interested public accountants regarding relevant aspects of auditing NWSG and NPUC, and draft terms of reference to be used for hiring of auditors by NWSG and NPUC..
- (vii) Work with NWSG on its first audit based on fiscal year 2005 (ending 31 December 2005). Work with NPUC in its conversion to upgrade its financial reporting system with the objective of maximizing conformance to international accounting standards within the fiscal year ending 31 December 2005.
- (viii) Assist NWSG in preparing projections of revenues, operating expenses, debt service payments, and summarize the sources and uses of capital funds. Estimate annual cash flow requirements associated with each major capital improvement program.
- (ix) Assess NWSG's 5-year capital investment program, recommending possible improvements in logic and consistency of the program, presentation formatting, and program management.
- (x) Coordinate the preparation of a bond approval application including specific feasibility report on projects to be financed by the bond issue. For the technical sections of the bond application feasibility report that are prepared by engineers, limit the assistance to review of and comments on the work prepared by the

¹ The identity of NPUC as a bond issuer is to be confirmed in the course of the TA. All references to NPUC for financial reporting will be deemed to refer to utility company bond issuer.

Nanjing Urban Construction Investment Holding (Group) Co Ltd (NCIC) and its subsidiary companies.

- (xi) Advise on informal and formal procedures necessary to facilitate an effective and efficient bond approval process.
- (xii) Communicate the progress of all elements of component A to the consultants hired by the Asian Development Bank (ADB) for project preparatory technical assistance.

B. Preparing Sustainable Credit Rating Process (Component B)

3. The consultants will carry out these specific tasks:

- (i) Work with one or more rating agencies selected by ADB to provide shadow ratings for NWSG and NPUC. Shadow rating will be undertaken individually for each of the two entities.
- (ii) Develop a database—as a supplement to financial statements—that can be used for a comprehensive rating agency package for presenting information. Include information on the local economy, utility customer base, management, employees, and other key areas. For documents of information disclosure, draw on one or more templates using best practices from other countries.
- (iii) Assuming a utility revenue finance structure for NWSG, assess water and wastewater tariff and connection fee structures to ensure that resulting revenue projections can realistically cover estimated operating and maintenance costs, depreciation, and required debt service coverage ratios. To the extent possible, explore means of relying on financial structures without major revenue assumptions based on material tariff increases to be implemented on a deferred or back-ended basis.
- (iv) Review commercial insurance policies of both NWSG and NPUC and recommend appropriate positive insurance covenants. Explore the basis for limited self-insurance options to be incorporated into covenants.
- (v) Explore a limited range of foreign currency bond issuance options. Provide a brief memorandum on costs and benefits of such options as well as risks and rewards. Given the domestic currency revenue stream of NWSG and NPUC and resulting currency mismatch risk, the rationale for onshore or offshore foreign currency would need to be strong to be seriously considered.
- (vi) Work with NWSG to develop basic elements of a plan to diversify its borrowing sources, obtain a target average life for overall debt amortization and to achieve a target ratio between fixed and floating rate debt composition for NWSG. Include such a plan within rating agency presentations.
- (vii) Assist NWSG and NPUC in preparing information packages for such rating agencies and in answering follow-up inquiries.
- (viii) Develop a comprehensive list of utility revenue bond covenants for both NWSG drawing on global experience of utilities able to achieve investment grade or better credit ratings. Include in the covenants provisions for additional debt, default measures, major maintenance reserves, debt service reserve funds, a waterfall revenue account structure, and a clear definition of intercreditor sharing of security rights over cash flow and assets of NWSG. (i.e with other commercial lenders, bondholders, etc.).
- (ix) Advise NWSG and NPUC to satisfactorily address identified credit weaknesses under the shadow rating process and review their progress on this matter.

C. Pilot Project Preparation (Component C)

4. The consultants will carry out these specific tasks:

- (i) With the background of the Shanghai Water Assets Operation and Development Commission (SWAOD) utility bond issue currently in the final stages of preparation, review the relevant existing primary legislation and subordinate (administrative) regulations at the national, provincial, and municipal levels for NWSG bond issuance to identify impediments to international structures for utility revenue bonds in the commercial finance markets. Develop alternative mechanisms to address areas where legal and regulatory changes do not appear to be viable within the next 1–2 years.
- (ii) Review the impediments (if any) to the following classification of bond buyers: (a) commercial banks, (b) pension funds (either directly or through fund managers), (c) insurance companies, and (d) trust fund intermediaries for institutional and individual retail buyers. As buyers from all these classifications are already investing in corporate bonds, the likely impediments would appear to relate to credit restrictions.
- (iii) Assist in (a) applications for bond approval from National Development and Reform Commission (NDRC) and (b) applications for listing from the Shanghai Stock Exchange, the Interbank Exchange, and other relevant bond market exchanges. Explore alternatives to any requirements for full bank guarantees in discussions with NDRC.
- (iv) Draft a risk matrix for NWSG. Assess risks on upstream and downstream contractual arrangements including build–operate–transfer (BOT) treatment service providers.
- (v) Once the basic bond structure and schedule have been determined, NCIC, NPUC, and ADB would jointly determine whether or not ADB private sector operations can add net value to the subject bond issue via use of one or more of its financial instruments, with assumption of credit risk on part of the bond issue. To ensure the above parties have full detailed information for such discussions, make an independent assessment to rank and prioritize the value-added functions of each type of ADB instrument, i.e. partial credit guarantees, purchase of bonds. Examples of value-added functions would be broadening of types of investor classes, acceptance of new security structures, and access to fixed rate financing, tenor extension, and risk mitigation. The consultant must include cost-effectiveness as one of key criteria in analysis.
- (vi) Support the preparation of information disclosure documentation necessary for final official presentations to credit rating agencies, potential underwriters, and private investors.
- (vii) Support detailed legal and financial structuring of bond issuance including terms sheet development, bond documentation, and security documentation. Ensure that debt maturity and amortization are set according to NWSG financial objectives and not simply as a reaction to investor demand.
- (viii) Suggest criteria and means of selecting debt arrangers/underwriters. Within the selection process qualifications should include the ability to attract a multiple diversified bond investor group for future utility bond issues in Nanjing and the People's Republic of China as a whole.
- (ix) Assist in detailed implementation of bond closing. For the sake of clarification, the TA will not cover costs of bond underwriting or regulatory approvals.

5. The consulting firm will have broad experience needed for a multidisciplinary assignment of this type. The lead consultant will submit an inception report and a detailed work plan at the end of the first month following TA start-up. Quarterly progress reports will be submitted during the TA and a draft final report will be required before the end of the TA. Other detailed reports on specialized matters will be in accordance with the detailed terms of reference. Final reports will be submitted 1 month after comments on the draft final report are made by the NCIC and ADB. Review meetings between the NCIC and ADB will be held at regular intervals to discuss the progress of the TA.

6. The consultants will be headed by a team leader who will manage the consultant inputs to produce the required outputs including reports, all of which must be in both English and Chinese languages.