



## Technical Assistance Report

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Project Number: 42267-027  
Transaction Technical Assistance (TRTA)  
June 2017

# INDIA: Preparing the Rajasthan Secondary Towns Development Investment Program

This document is being disclosed to the public in accordance with ADB's Public Communications Policy 2011.

Asian Development Bank

## CURRENCY EQUIVALENTS

(as of 16 June 2017)

Currency unit	–	Indian rupee (₹)
₹1.00	=	\$0.015
\$1.00	=	₹64.59

## ABBREVIATIONS

ADB	–	Asian Development Bank
DPR	–	detailed project report
GOR	–	Government of Rajasthan
MFF	–	multitranches financing facility
RSTDIP	–	Rajasthan Secondary Towns Development Investment Program
RUIDP	–	Rajasthan Urban Infrastructure Development Project
TRTA	–	transaction technical assistance

## NOTE

- (i) The fiscal year (FY) of the Government of India and its agencies ends on 31 March. “FY” before a calendar year denotes the year in which the fiscal year ends, e.g., FY2017 ends on 31 March 2017.
- (ii) In this report, “\$” refers to US dollars.

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## TRANSACTION TECHNICAL ASSISTANCE AT A GLANCE

<b>1. Basic Data</b>		<b>Project Number: 42267-027</b>	
<b>Project Name</b>	Preparing the Rajasthan Secondary Towns Development Investment Program	<b>Department /Division</b>	SARD/SAUW
<b>Nature of Activity</b>	Project Preparation, Capacity Development	<b>Executing Agency</b>	Rajasthan Urban Infrastructure Development Project
<b>Modality</b>	Regular		
<b>Country</b>	India		
<b>2. Sector</b>	<b>Subsector(s)</b>	<b>ADB Financing (\$ million)</b>	
✓ Water and other urban infrastructure and services	Urban sewerage		0.65
	Urban water supply		0.65
		<b>Total</b>	<b>1.30</b>
<b>3. Strategic Agenda</b>	<b>Subcomponents</b>	<b>Climate Change Information</b>	
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive	Climate Change impact on the Project	Medium
Environmentally sustainable growth (ESG)	Eco-efficiency Urban environmental improvement		
<b>4. Drivers of Change</b>	<b>Components</b>	<b>Gender Equity and Mainstreaming</b>	
Governance and capacity development (GCD)	Client relations, network, and partnership development to partnership driver of change	Effective gender mainstreaming (EGM)	✓
Knowledge solutions (KNS)	Application and use of new knowledge solutions in key operational areas		
Partnerships (PAR)	Civil society organizations Implementation Private Sector		
<b>5. Poverty and SDG Targeting</b>		<b>Location Impact</b>	
Geographic Targeting	Yes	Urban	High
Household Targeting	No		
SDG Targeting	Yes		
SDG Goals	SDG6, SDG11		
<b>6. Risk Categorization</b>	Low		
<b>7. Safeguard Categorization</b>	Safeguard Policy Statement does not apply		
<b>8. Financing</b>			
<b>Modality and Sources</b>		<b>Amount (\$ million)</b>	
<b>ADB</b>		<b>1.30</b>	
Transaction technical assistance: Technical Assistance Special Fund		1.30	
<b>Cofinancing</b>		<b>0.00</b>	
None		0.00	
<b>Counterpart</b>		<b>0.00</b>	
None		0.00	
<b>Total</b>		<b>1.30</b>	



## I. THE ENSUING INVESTMENT PROGRAM

1. The proposed multitranche financing facility (MFF) for the Rajasthan Secondary Towns Development Investment Program (RSTDIP) will complement past and ongoing efforts of the Government of Rajasthan (GOR) to improve infrastructure, management, and performance of urban services to 2.5 million residents of Rajasthan.<sup>1</sup> The RSTDIP will help reduce nonrevenue water (NRW); provide 24x7 water supply; and expand the drainage and sewerage network, including fecal sludge management and decentralized wastewater systems, in Jaipur, the capital city, and 37 secondary towns in Rajasthan. The impact of the RSTDIP will be productivity, livability, and prosperity for the residents of Rajasthan improved.<sup>2</sup> The outcome will be urban service delivery in Jaipur and secondary towns of Rajasthan improved. The RSTDIP is estimated to cost \$715 million with the MFF amount of \$500 million to be provided in two equal tranches.

## II. THE TECHNICAL ASSISTANCE

### A. Justification

2. The transaction technical assistance (TRTA) will help the GOR prepare the proposed investment program. The TRTA will carry out due diligence on technical, economic, financial, governance, safeguards, gender, poverty, social, natural hazard and climate resilience aspects for the ensuing investment program. Assisting the target secondary towns along the capital city, Jaipur, is an integral part of investment program preparation, without which the program implementation may face significant start-up delays. The TRTA is synchronized to maximize knowledge transfer and suggest the ways to suitably coordinate with ongoing and other proposed projects in water and wastewater sectors in Rajasthan.

3. The TRTA will enhance project readiness by assisting the GOR in undertaking advance actions, including identification of lands for project facilities. The GOR has taken advance actions of preparing detailed project reports (DPRs) and bidding documents for the subprojects under the RSTDIP. The TRTA will assist in the preparation of a sector assessment, road maps, and investment plan, and a pre-feasibility study for future projects.

### B. Outputs and Activities

4. The major outputs and activities are summarized in Table 1.

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

Major Outputs	Delivery Date	Key Activities with Milestones
Inception report	August 2017	1.1 Review of existing policies, projects and masterplan 1.2 Submission of workplan and timelines of activities
Interim report	September 2017	2.1 Submission of due diligence reports including technical, environment, social, gender, procurement, implementation arrangements and financial/economic analysis
Draft final report	December 2017	3.1 Submission of revised due diligence reports and all linked documents to Report and Recommendation of the President (RRP)

<sup>1</sup> The project and the TA are included in ADB. 2017. *Country Operations Business Plan: India, 2017–2019*. Manila.

<sup>2</sup> Government of India, NITI Aayog. 2017. *Three Year Action Agenda, FY2018 to FY2020*. New Delhi; and Government of Rajasthan, Department of Local Self Government. 2015. *Urban Development Policy, 2015*. Jaipur.

Major Outputs	Delivery Date	Key Activities with Milestones
Final report	April 2018	4.1 Finalization of due diligence reports 4.2 Support for enhancement of project readiness and expediting implementation

### C. Cost and Financing

5. The TRTA is estimated to cost \$1,300,000 equivalent, which will be financed on a grant basis by Technical Assistance Special Fund (TASF-Others) of the Asian Development Bank (ADB). The key expenditures items are listed in Annexure 1.

6. The GOR will provide support in the form of counterpart staff, office and housing accommodation, office supplies, secretarial assistance, provision of office space, communication facilities for consultants, and other in-kind contributions. The TRTA proceeds will be disbursed in accordance with ADB Technical Assistance Disbursement Handbook (May 2010, as amended from time to time).

### D. Implementation Arrangements

7. The GOR, through Rajasthan Urban Infrastructure Development Project (RUIDP) under the Local Self Government Department, will be the executing agency. ADB's South Asia Department, through the Urban Development and Water Division, will serve as the implementing agency and will be responsible for coordinating, supervising, and implementing all TRTA activities, including recruitment and monitoring of consultants.

8. The GOR will provide (i) all relevant documents, data, statistics, information, and maps that are available at the disposal of the GOR; (ii) appropriate and qualified counterpart staff, including their field per diem and field transportation; (iii) office accommodation and office equipment, including desks and chairs, and local communication; (iv) logistical assistance for the workshops and seminars, including the venue, and identifying and inviting the invitees; and (v) utility costs, covering electricity and water, among others.

9. Procurement of goods will be carried out in accordance with ADB's Procurement Guidelines (2015, as amended from time to time). The equipment procured under the TA will be turned over to the GOR at the end of the TRTA.

10. The TRTA will be implemented from July 2017 to June 2018. The proposed TRTA processing and implementation schedule is listed in Table 2.

**Table 2: Implementation Arrangements**

Aspects	Arrangements
Indicative implementation period	July 2017–June 2018
Executing agency	Government of Rajasthan through its Local Self Government Department
Implementing agency	Urban Development and Water Division, South Asia Department, ADB
Consultants	To be selected and engaged by ADB
	QCBS (80:20)   82 person-months   \$ 1,060,000
Procurement	Shopping of goods (computer, printers, laptop)
Disbursement	The TA resources will be disbursed following ADB's Technical Assistance Disbursement Handbook (2010, as amended from time to time).



Aspects	Arrangements
Asset turnover or disposal arrangement upon TA completion	Fixed asset will be turned over to RUIDP upon completion of the TRTA.

ADB = Asian Development Bank, QCBS = Quality-Cost Based Selection, RUIDP = Rajasthan Urban Infrastructure Development Project, TA = technical assistance  
Source: ADB estimates.

11. **Consulting services.** The consultant team will be composed of international and national consultants. All consultants will work collectively as a team in developing all outputs. The consulting services required for the TRTA will include expertise in: (i) Water Supply; (ii) Nonrevenue Water Reduction; (iii) Wastewater; (iv) Wastewater Treatment; (v) Procurement; (vi) Financial Management; (vii) Economics; (viii) Environmental Safeguards; (ix) Social Safeguards; (x) Institutional Development; (xi) Communication; and (xii) Private Sector and Public Private Partnerships. The consulting services terms of reference are reported in Annexure 2.

12. The team leader and the ADB project officer may augment the tasks outlined, as required, to comply with ADB guidelines and procedures and to improve the quality of the overall TRTA. The tasks are to be carried out in close cooperation with the GOR, and extensive consultation is needed to ensure transfer of knowledge and full ownership of the processes and documents by the concerned GOR agencies. The TRTA will require about 82 person-months of consulting services (8 international and 74 national). The consultants will work under the overall guidance of the ADB project officer and project director, RUIDP, and will be recruited under one package (firm) using the quality- and cost-based method of selection with a standard quality-cost ratio of 80:20. A simplified technical proposal will be used for the selection of a firm. The consultant team will work closely with RUIDP team and its consultants recruited to prepare DPRs for the RSTDIP. The consultants will be engaged by ADB in accordance with the Guidelines on the Use of Consultants (2013, as amended from time to time).<sup>3</sup>

13. In addition to the firm, a few individual consultants may also be recruited as necessary to provide support to enhance project readiness and expedite project start-up activities. They will undertake training of relevant officials involved in the project, and assist the executing agency and implementation agency in undertaking advance contracting for civil works and loan consultants for the project.

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<sup>3</sup> Terms of Reference for Consultants (See Annexure 2 of this document).

**ANNEXURE 1: COST ESTIMATES AND FINANCING PLAN**  
(\$'000)

Item	Amount
<b>A. Asian Development Bank<sup>a</sup></b>	
1. Consultants	
a. Remuneration and per diem	
i. International consultants (8 person-months)	260.0
ii. National consultants (74 person-months)	730.0
b. Out-of-pocket expenditures	
i. International and local travel	60.0
ii. Reports and communications	10.0
2. Equipment (computer, printer, etc.)	30.0
3. Surveys	80.0
4. Training, seminars, and conferences	50.0
5. Miscellaneous administration and support costs	20.0
6. Contingencies	60.0
<b>Total</b>	<b>1300.0</b>

Note: The technical assistance (TA) is estimated to cost \$1,300,000, of which contributions from the Asian Development Bank are presented in the table above. The government will provide counterpart support in the form of counterpart staff, office and housing accommodation, office supplies, secretarial assistance, provision of office space, communication facilities for consultants, and other in-kind contributions.

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

Source: Asian Development Bank estimates.

## ANNEXURE 2: TERMS OF REFERENCE FOR THE CONSULTANTS

### I. Proposed Project and Technical Assistance

1. The proposed Rajasthan Secondary Towns Development Investment Program (RSTDIP) (the Project) with an approximate amount of \$715 million (ADB financing of \$500 million) will support the ongoing efforts of the Government of Rajasthan (the government) towards improving the water and wastewater services in 37 towns, each with population between 50,000 and 100,000, in the state. The project will invest in the rehabilitation and expansion of water supply network for reduction of nonrevenue water (NRW), 24x7 water supply, the rehabilitation and expansion of sewerage network, modernization and new construction of water supply and wastewater treatment plants, as required, fecal sludge management, and decentralized wastewater management systems in the project towns. The project is expected to increase operational efficiency, improve service delivery, and result in positive impact on health and quality of life for the residents of project towns in the state.

2. The impact of the RSTDIP will be improved productivity, livability, and prosperity for the residents of Rajasthan. The outcome will be improved urban service delivery in Jaipur and secondary towns of Rajasthan. The project will focus on investment in infrastructure that maximizes the efficiency, effectiveness and utility of infrastructure and services planned under the ongoing Asian Development Bank (ADB) loans and will prioritize the underserved areas and the poor sections of population in the project towns in Rajasthan. The project will also support and further consolidate the continuing efforts of the government and ADB in institutional development and improvement of governance in the urban sector. The project will have 3 outputs as follows.

3. **Output 1: Water supply system rehabilitated and expanded in Jaipur and program towns.** Activities include: (i) distribution network improvement on a district metering area (DMA) basis for NRW reduction; (ii) provision of individual property connections to residents, especially the poor and households headed by women; (iii) provision of 24-hour water supply; and (iv) improvement of water supply efficiency by reducing NRW and energy losses of electromechanical machinery.

4. **Output 2: Wastewater and sanitation system rehabilitated and expanded in program towns.** Activities include: (i) rehabilitation and expansion of the sewerage network, including separation of sewers from drains, and property connections; (ii) modernization and expansion of wastewater treatment plants; (iii) use of wastewater as a resource, including recycling of wastewater, and energy generation through sludge digestion; and (iv) fecal sludge management and decentralized wastewater treatment systems.

5. **Output 3: Institutional capacities, human resources, and program management strengthened.** Activities include: (i) capacity building of urban institutions and municipal bodies, (ii) program management, (iii) implementation of a gender equality and social inclusion action plan, (iv) implementation of a consultation and participation plan, and (v) use of high level technology to drive efficiency in operations and service delivery.

6. The transaction technical assistance (TRTA) will support preparation of the documents required for approval of the Project by ADB Board and the government. The TRTA consultant will help GOR and ADB carry out due diligence on technical, economic, financial, governance, safeguards, gender, poverty, social, natural hazard and climate aspects for the ensuing project. Specifically the TRTA consultant will (i) determine the feasibility of the proposed investments for

water and wastewater infrastructure in the Project towns for NRW reduction, 24x7 water supply and appropriate waste management systems covering (a) preliminary engineering designs, (b) cost estimates and financing plan, (c) financial and economic viability and sustainability, (d) environmental and social soundness, (e) due diligence for disaster and climate change risk assessment, considering the exposure of the project areas and vulnerability of households to climate change and disasters triggered by natural hazards, and (f) detailed implementation arrangements; and (ii) prepare an institutional capacity strengthening program. The TRTA will also prepare the necessary documents for approval of the Project.

## II. Consulting Services

7. The consultant team will comprise international and national consultants. All consultants will work collectively as a team in developing all outputs. The consulting services required for the TRTA will include, but will not necessarily be limited to, the services described in these terms of reference. The team leader and the Asian Development Bank (ADB) project officer may augment the tasks outlined, as required, to comply with ADB guidelines and procedures and to improve the quality of the overall TRTA. The tasks are to be carried out in close cooperation with the Government, and extensive consultation is needed to ensure transfer of knowledge and full ownership of the processes and documents by the concerned government agencies.

8. The TRTA will require about 82 person-months of consulting services (8 international and 74 national). A team of consultants, who will work under the overall guidance of the ADB project officer and Project Director, RUIDP, will be recruited under one package using the quality- and cost-based method of selection with a standard quality-cost ratio of 80:20. A simplified technical proposal will be used for the selection of a firm. The team will work closely with RUIDP team and its consultants recruited to prepare DPRs for RSTDIP. The summary of consulting services requirement is presented in Table 1.

**Table 1: Qualifications, Experience and Person-months requirements**

	<b>Specialist, (National or International)</b>	<b>Desired requirements</b>	<b>Person- Months</b>
<b>International</b>			
1	Team Leader and Water Supply Expert	A Graduate Civil Engineer with approximately 20 years relevant international experience in project management or operations of urban water supply systems, especially distribution network improvement with NRW reduction and 24x7 water supply. Experience of project preparation or feasibility studies of projects financed by multilateral financial institutions (WB, ADB, etc.); and experience of working as Team Leader of ADB's transaction technical assistance (TRTA) are desirable. As the team leader, he/she will (i) lead the overall implementation of the TRTA, (ii) ensure timely inputs from all the members in the team and will review and ensure quality of inputs from each member, (iii) coordinate closely with the government, RUIDP, DPR consultants, and ADB, (iv) be responsible for overall quality and timeliness of the outputs under the TRTA, and (v) prepare processing documents as required by ADB and the government.	7
2	Nonrevenue Water Expert	A Graduate Civil Engineer with approximately 20 years relevant international experience in water supply projects in urban areas for NRW reduction and distribution network improvement for 24x7 water supply. Experience of project preparation or feasibility	1

		studies of projects financed by multilateral financial institutions (WB, ADB, etc.) will be desirable.	
		<b>Total International</b>	<b>8</b>
<b>National</b>			
1	Deputy Team Leader and Water Supply Expert	<p>A Graduate Civil Engineer with approximately 15 years relevant experience in project management or operations of urban water supply systems. Experience of project preparation or feasibility studies of projects financed by multilateral financial institutions (WB, ADB, etc.), especially ADB's transaction technical assistance (TRTA) are desirable.</p> <p>As the Deputy team leader, he/she will work with the Team Leader to ensure (i) overall implementation of the TRTA, (ii) timely inputs from all the members in the team and will review and ensure quality of inputs from each member, (iii) coordination with the government, RUIDP, DPR consultants, and ADB (iv) quality and timeliness of the outputs under the TRTA, and (v) preparation of processing as required by ADB and government for approval of the project.</p>	8
2	Water Supply Expert (3 persons)	A Graduate Civil Engineer with approximately 15 years of relevant experience in design, construction, and project management of water supply systems, especially distribution network improvement for NRW reduction and 24x7 water supply. Knowledge of GIS and Network Modeling software will be desirable.	3x 5 person-months each =15
3	Wastewater Expert (3 persons)	A Graduate Civil Engineer with approximately 15 years of relevant experience in design, construction, and project management of sewerage systems and wastewater treatment plants. Knowledge of GIS and Network Modeling software will be desirable.	3x5 person-months each =15
4	Wastewater treatment expert	A Graduate Civil Engineer/Mechanical Engineer with approximately 15 years of relevant experience or a Post-graduate with approximately 10 years relevant experience in design, procurement, construction, and contract and project management of wastewater treatment plants. Knowledge and experience of working on various available technologies along with comprehensive understanding of relative advantages and disadvantages of wastewater treatment technologies are desirable. Knowledge of SCADA System will be desirable. He/She will work with Wastewater Experts to recommend the best techno-economic treatment technologies for the proposed project.	3
5	Procurement Specialist	A Graduate Engineer with approximately 15 years of relevant experience in procurement and contract management, preferably in projects financed by multilateral organizations. Knowledge and experience of procurement of Design-Build-Operate (DBO) systems, and ADB's procurement systems are desirable.	4
6	Financial management expert	A Professional qualification such as Chartered Accountant or a Post-graduate in Economics/ Finance/Business Administration/Commerce or related field with approximately 10 years of relevant experience. Specifically, experience of working on projects financed by multilateral organizations, and expertise in ADB's systems of project financial management are desirable.	4

7	Economist	An Economist with approximately 10 years of relevant experience. Specifically, experience of working on projects financed by multilateral organizations, and expertise in ADB's procedures of economic analysis are desirable.	4
8	Environmental Safeguards Expert	A Graduate or Post-graduate in Environmental Science/Environmental Management or related field with approximately 10 years of experience of working on Environmental safeguards, preferably in projects financed by multilateral organizations. Knowledge and experience of ADB's systems of environmental safeguards are desirable.	4
9	Social development and Gender Expert	A Graduate or Post-graduate in Social Science/Political Science or related field with approximately 10 years of experience of working on gender, social development and poverty issues, preferably in projects financed by multilateral organizations. Knowledge and experience of working on projects involving ADB's social, gender, and poverty policies are desirable.	4
10	Social Safeguard Expert	A Graduate in Social Science/Political Science or related field with approximately 10 years of experience of working on Social safeguards, preferably in projects financed by multilateral organizations. Knowledge and experience of working on projects involving ADB's resettlement policies are desirable.	4
11	Institutional Development Expert	A Graduate with approximately 15 years of experience of working in urban sector. Experience of working in projects financed by multilateral organizations, and expertise related to functional areas such as institutional development, trainings and capacity building, development and implementation of medium term and long term business plans in the urban sector are desirable.	3
12	Communication Expert	A Graduate in a field related to Communications with approximately 15 years of experience of working in public communications and stakeholders' consultations. Experience of working in projects financed by multilateral organizations, and expertise related to functional areas such as communications, public education, community mobilization, and institutional development are desirable.	3
13	Private Sector and PPP Expert	A degree in Business Administration, Engineering, Finance, Economics or related field with approximately 15 years of relevant experience in private sector development and PPP, especially in the urban sector. Experience of working on projects financed by multilateral organizations (ADB, WB, etc.) will be desirable. Knowledge and expertise in assessment of policies and regulatory framework for private sector participation are desirable.	3
		<b>Total National</b>	<b>74</b>

Source: ADB estimates.

### III. Detailed Terms of Reference

#### A. General

9. The consultants will:

- (i) evaluate water supply and wastewater management systems of the project towns in Rajasthan and recommend measures to ensure use of best practices from other projects or other water and wastewater utilities;

- (ii) incorporate lessons learned from ADB's as well as other development partners' interventions in urban development in general and water and wastewater management in particular;
- (iii) collaborate closely with the executing agency and beneficiaries to finalize the project investment packages that will be included in the ensuing Project, and prepare all necessary due diligence documents for these packages;
- (iv) consult key stakeholders to identify the project design parameters, institutional bottlenecks to water and wastewater service provision, and major issues facing the service providers in project towns in delivering water and wastewater services;
- (v) work closely with DPR consultants and review the DPRs and procurement documents being prepared by them;
- (vi) prepare method statements for NRW reduction and 24x7 water supply; and specifications for water supply and wastewater systems based on best practices followed in other countries;
- (vii) prepare a project administration manual (PAM) and other due diligence documents required for approval of the Project by ADB Board and the Government;
- (viii) carry out risk assessment based on governance risk assessment tool, and disaster management and climate change screening tool as per ADB requirements; and
- (ix) coordinate with ADB and the Government regarding possibilities of cofinancing and/or parallel financing by other development partners, and prepare packages suitable for cofinancing and/or parallel financing;

## **B. Technical Analysis-Water and Wastewater**

10. The consultant will undertake analysis of the current status of water, wastewater and drainage services in the proposed secondary towns and identify the gaps and the proposed interventions including infrastructure investments and non-physical interventions. Similar analysis will be undertaken in the proposed demonstration areas of Jaipur for water services. The consultant will determine the technical feasibility of the proposed investments for water and wastewater infrastructure improvement in project towns, and prepare preliminary engineering designs, cost estimates, financing plan, and procurement plan with focus on nonrevenue water reduction, 24x7 water supply, decentralized wastewater treatment systems, fecal sludge management, and energy-efficient technologies. The consultants will select the most suitable technology, equipment, and facilities considering the capacities of the local authorities to manage, operate, and maintain the assets created. The consultants will:

- (i) identify and prioritize, in consultation with the government, the critical investments required in water and wastewater sector in each project town with focus on distribution network improvement for NRW reduction and 24x7 water supply;
- (ii) carry out technical due diligence of all identified water and wastewater sector components for feasibility, utility, relevance, criticality, impact, and operational sustainability;
- (iii) prepare preliminary engineering designs, cost estimates, financing plan, procurement plan, and other documents required for processing the project;
- (iv) conduct necessary topographical and geo-technical surveys through outsourcing to provide necessary data for preparing detailed engineering designs and bidding documents including bill of quantities;
- (v) assess land acquisition requirements for the identified critical and prioritized subprojects to be financed under the Project and support the government to carry out the land acquisition proceedings;

- (vi) recommend energy-efficient technologies for waste treatment, and where feasible, energy generation from methane gas produced in wastewater treatment plants to achieve minimum (almost zero) energy balance;
- (vii) recommend effective solutions to the problem of inter-mixing of storm water and wastewater systems; the sewerage network packages will be identified, and prepared considering the proposed solutions;
- (viii) identify the potential of reuse of the treated wastewater, propose treatment system with techno-economic analysis, and recommend maximum reuse;
- (ix) prepare guidelines to develop operation and maintenance (O&M) embedded construction contracts for wastewater treatment plants; and
- (x) prepare an operation and maintenance plan with cost implications and responsibilities for all Project components.

### **C. Procurement**

11. The consultants will carry out procurement due diligence and prepare the documents required for processing of the Project, procurement of civil works, goods, and consultants, and taking advance actions in accordance with ADB's Procurement Guidelines (2015, as amended from time to time), and Guidelines for the Use of Consultants (2013, as amended from time to time). Specifically, the consultants will:

- (i) prepare procurement methods and packages in accordance with ADB's Guidelines on Procurement, and outline terms of reference for consulting services for management and implementation of the Project;
- (ii) conduct procurement capacity assessment for the executing agency and implementing agency, and identify measures to minimize procurement and financial management risk;
- (iii) undertake necessary surveys and studies, hire specialized agencies for this purpose for supporting the processing of the Project;
- (iv) prepare a procurement plan for the Project with suggested level of prior or, if applicable, post review based on the procurement capacity assessments, containing an indicative implementation schedule with proposed sequencing of consultant recruitment and procurement bidding and awards for civil works and goods; and
- (v) identify advance actions to be undertaken to ensure smooth start-up of Project implementation using the project readiness filter; prepare documents necessary for advance actions such as invitations for expressions of interest, request for proposal, and shortlist of consulting firms; and provide training for the evaluation of proposals.

### **D. Financial Analysis and Financial Management Assessment**

12. The consultant will carry out financial due diligence of the subprojects and prepare the documents required for processing of the Project, and taking advance actions in accordance with ADB's technical guidance note (TGN) for Financial Management Assessment (2015), TGN for project financial reporting and auditing (2015), and TGN for preparation of cost estimates (2014). For all other issues not covered by these 3 TGNs, the publication "Financial Management and Analysis of Projects (2005)" should be referred. The consultants will:

- (i) prepare project costings. The consultant will: (a) prepare project cost estimates using specialized software; (b) identify the cash flow requirements; (c) prepare



- projections of future incremental costs and identify actions to ensure project's financial sustainability; (d) prepare appropriate fund flow mechanism, disbursement schedule including S-curve for projections of contract awards and disbursements; and standard cost estimates tables; and (e) provide costing and financial forecasting data for the economic analysis to support assessment of economic viability;
- (ii) complete a financial management assessment (FMA) of the executing agency and implementing agency in order to ensure that financial management capacity is adequate to implement the proposed Project. The expert will follow the guidance in ADB's draft FMA Guidelines and will: (a) use the modified Financial Management Assessment Questionnaire to collect the information needed to assess the strengths and weaknesses of financial management systems, controls, and financial reporting standards which will relate to financial management and control of Project funds; (b) assess staffing requirements; (c) identify risks arising from material deficiencies, and propose practical recommendations for improving financial management functions and/or staffing for financial operations needed to mitigate risks; and (d) provide relevant detailed information to enable completion of the financial management section of the Second Governance and Anticorruption Action Plan (GACAP II) Risk Assessment;
  - (iii) Carry out the financial analysis of the Project with FIRR and WACC computations and sensitivity analysis corresponding to critical variables; and
  - (iv) assist, as necessary, the team leader and other involved consultants to prepare project administration manual (PAM), and explain to the Borrower the financial management assessment, the basis and results of financial projections, and relevant proposed financial risk mitigation measures.

## **E. Economic Analysis**

13. The consultant will carry out economic due diligence of the subprojects and prepare the documents required for processing of the Project, and taking advance actions in accordance with ADB's guidelines. Specifically, the consultant will carry out the economic analysis consistent with ADB's *Guidelines for the Economic Analysis of Projects*, ADB's Operations Manual G1 including 10 Key Areas of Economic Analysis of Investment projects, recent retrospective reports on economic analysis, and relevant technical notes published by ADB's Economic Research Department. The consultants will:

- (i) undertake an economic evaluation of the Project components to estimate the economic benefits;
- (ii) prepare an economic analysis covering, among other things, demand analysis, least economic cost analysis, economic cost and benefit analysis, economic internal rates of return, average incremental economic costs, sensitivity analysis, risk analysis, benefit distributional analysis, poverty impact ratios, and assessment of subsidies. If subsidies are needed, provide their rationale and justification, in line with ADB's Criteria for Subsidies;
- (iii) review the socioeconomic development plan of Rajasthan, especially the project towns, describe the macroeconomic and sector context within which the ensuing Project will be implemented, and establish the rationale for public sector and ADB involvement;
- (iv) review the baseline surveys done in the past, provide inputs for design of the socioeconomic survey, collect the necessary data required for economic analysis, and prepare baseline data;

- (v) by reviewing the past audited financial statements and fiscal budgets; prepare 10-year financial projections of the executing agency and implementing agency and assess the affordability of proposed project components;
- (vi) review tariff and taxation policies, current tariff levels and structures, and collection mechanisms for the services; recommend suitable tariff structure and user charges; assess the pricing of services for the poor, willingness to pay, ability to pay of different user groups, and cost-sharing mechanisms; and
- (vii) conduct SWOT analysis which analyzes strengths, weaknesses, opportunities, and threats faced by the executing agency and implementing agencies.

## F. Environment

14. The consultant will carry out environmental safeguards due diligence of the subprojects and prepare the documents required for processing of the Project, and taking advance actions in accordance with ADB's guidelines. An environmental assessment and review framework (EARF) will be prepared for the Project to guide subproject selection, screening and categorization, environmental assessment, and preparation and implementation of safeguard plans of subprojects and to facilitate compliance with the requirements specified in ADB's *Safeguard Policy Statement* (2009). Initial environmental examination (IEE) will be prepared for representative components (or subprojects) in accordance with EARF, ADB SPS, 2009 and ADB's *Environment Safeguards: A Good Practice Sourcebook*.<sup>4</sup> The consultant will closely coordinate with the all members of the TRTA team to ensure the environmental soundness and sustainability of the Project, and to support the integration of environmental considerations into the Project decision-making process. He/she will also ensure quality and consistency of environmental safeguard documents for loan processing follow ADB's *Handbook of Style and Usage*.<sup>5</sup> The consultants will:

- (i) formulate environmental criteria for subproject selection, location and design<sup>6</sup> ensuring Project will not result to significant negative environmental impacts;
- (ii) prepare and finalize environmental safeguard documents (including but not limited to EARF, subproject rapid environmental assessment checklist, EIA,<sup>7</sup> IEE, and environmental audits of existing facilities);
- (iii) collect data on environmental conditions including an inventory of natural and artificial resources, and the links between them; and identify climatic, topographical, and ecological patterns that may affect or be affected by the proposed Project;
- (iv) conduct an environmental assessment for each proposed component to identify potential direct, indirect, cumulative, and induced impacts and risks to physical, biological, socioeconomic (including impacts on livelihood through environmental

<sup>4</sup> Can be downloaded from <https://www.adb.org/documents/environment-safeguards-good-practice-sourcebook>

<sup>5</sup> Can be downloaded from <https://www.adb.org/documents/handbook-style-and-usage>

<sup>6</sup> ADB SPS, 2009 requires borrower/client to apply pollution prevention and control technologies and practices consistent with international good practice, as reflected in internationally recognized standards such as the World Bank Group's Environment, Health and Safety Guidelines ([www.ifc.org/EHSGuidelines](http://www.ifc.org/EHSGuidelines)) during design, construction, and operation of the project. These standards contain performance levels and measures that are normally acceptable and applicable to projects. When Government of India regulations differ from these levels and measures, the borrower/client will achieve whichever is more stringent. If less stringent levels or measures are appropriate in view of specific project circumstances, the borrower/client will provide full and detailed justification for any proposed alternatives that are consistent with the requirements presented in ADB SPS, 2009.

<sup>7</sup> An EIA will be prepared if, during the environmental assessment process, it is determined that the Project will cause significant environmental impacts that will warrant its classification to environment category A.

- media, health and safety, vulnerable groups, and gender issues), and physical cultural resources in the context of the Project's area of influence;
- (v) carry out meaningful consultations with affected people and facilitate their informed participation regarding environmental aspects of the Project. During consultations, provide information to affected people regarding project components, potential environmental impacts during various project phases, and proposed mitigation measures. Ensure women's participation in consultation and involve stakeholders, including affected people and concerned non-government organizations, early in the environmental assessment process; and ensure that their concerns regarding the potential environmental impacts of the Project are addressed in the project design and mitigation measures;
  - (vi) assist the executing agency and implementing agencies in disclosing project-related information in form and manner understandable by stakeholders and affected people;
  - (vii) assist the executing agency and implementing agency in securing environmental clearance certificates for each project component as required by the Government, and prepare necessary information to comply with ADB and Government guidelines;
  - (viii) join necessary ADB missions to conduct due diligence (field visits) and finalize environmental documents;
  - (ix) ensure environmental considerations and indicative costs to implement environmental mitigation measures and monitoring programs are included in bid and contract documents;
  - (x) develop capacity building programs for environmental safeguards and ensure implementation costs are included in the Project cost;
  - (xi) conduct environmental safeguards orientation for the executing agency and implementing agencies ensuring clear understanding of requirements of ADB SPS, 2009, EARF and EIAs/ IEEs;
  - (xii) develop grievance redress mechanism including, but not limited to, identification of key members and assessment of capacity needs to address environmental safeguards-related complaints/grievances;
  - (xiii) recommend (a) measures to safeguard the environment before, during, and after implementation of the Project; (b) mitigation measures and the monitoring program, including cost implications and an institutional setup for undertaking the program; and (c) responsible agency for environmental monitoring during project implementation; and
  - (xiv) provide other advice and deliverables as required by ADB.

## **G. Social and Gender**

15. The consultant will carry out due diligence of the subprojects on social and gender issues and prepare the documents required for processing of the Project, and taking advance actions in accordance with ADB's guidelines. The consultant, together with the executing agency and implementing agency, will prepare gender and social inclusion action plan, and stakeholder consultation strategy for the Project in accordance with ADB's Guidelines. The consultants will:

- (i) conduct a socioeconomic survey, if required, or use the available secondary data; and prepare socioeconomic and poverty profiles of the Project towns to include population, income, occupation, education, and health conditions, to be disaggregated by income group, ethnic group, and gender, to serve as the baseline for poverty and social monitoring;

- (ii) review local government policies, strategies, and programs for poverty reduction and regional economic development; and conduct a public perception survey to identify public problems, satisfaction with the level of industries services, development priorities, and perceptions toward the government's administrative efficiency, quality of industries' services, and willingness to pay for the improved services;
- (iii) prepare a poverty and social analysis, using participatory methods in accordance with the draft ADB Handbook for Poverty and Social Analysis and ADB's Guidelines for Incorporation of Social Dimensions in Bank Operations to assess the type and significance of the Project impacts on the poor, and other vulnerable groups; and prepare relevant plans as per ADB's Safeguards Policy Statement (2009) and in close consultation with the relevant agencies;
- (iv) prepare a poverty reduction and social strategy, as per ADB Guidelines, which includes special enhancement and necessary mitigation measures with target beneficiary groups, implementation arrangements, estimated budget, and monitoring indicators based on the poverty and social analysis;
- (v) prepare a gender equality and social inclusion action plan to mainstream gender and to ensure adequate women's representation and participation in decision-making processes, collect sex-disaggregated data for possible gender targets used in the Project, and develop gender targets in the design and monitoring framework;
- (vi) prepare a stakeholders consultation strategy for the Project and propose mechanism and resources to implement such strategy in the Project; and
- (vii) carry out stakeholder consultations and prepare a report summarizing the consultations held with stakeholders.

## H. Social Safeguard (Involuntary Resettlement and Indigenous Peoples)

16. The consultant will carry out social safeguards due diligence of the subprojects and prepare the documents required for processing of the Project, and taking advance actions in accordance with ADB's guidelines. A resettlement framework and indigenous people's planning framework (IPPF) will be prepared for the Project to guide subproject selection, screening and categorization, social safeguards assessment, and preparation and implementation of safeguard plans of subprojects and to facilitate compliance with the requirements specified in ADB, SPS 2009. Resettlement plan or due diligence report (DDR) will be prepared for representative components (or subprojects) in accordance with resettlement framework, ADB SPS, 2009 and ADB's Involuntary Resettlement Safeguards: A Planning and Implementation Good Practice Sourcebook.<sup>8</sup> Indigenous Peoples Plan (IPP), if required, will be prepared in accordance with the IPPF, ADB SPS and ADB's Indigenous Peoples Safeguards: A Planning and Implementation Good Practice Sourcebook.<sup>9</sup> The consultant will closely coordinate with the all members of the TRTA team to ensure the integration of social safeguards considerations into the Project decision-making process. He/ she will also ensure quality and consistency of social safeguards documents for loan processing follow ADB's Handbook of Style and Usage.<sup>10</sup> The consultants will:

<sup>8</sup> Can be downloaded from <https://www.adb.org/documents/involuntary-resettlement-safeguards-planning-and-implementation-good-practice-sourcebook-d>

<sup>9</sup> Can be downloaded from <https://www.adb.org/documents/indigenous-peoples-safeguards-planning-and-implementation-good-practice-sourcebook>

<sup>10</sup> Can be downloaded from <https://www.adb.org/documents/handbook-style-and-usage>

- (i) assess national, state and local laws, rules, and other decisions on land acquisition and resettlement; present comparison and gap analysis; and provide measures to address gaps, if any;
- (ii) conduct consultations with project affected households;
- (iii) carry out census of potentially affected households and inventory of their assets;
- (iv) record impacts on government, private, and communal structures and facilities;
- (v) carry out sample socioeconomic survey of affected households;
- (vi) undertake replacement cost survey;
- (vii) conduct workshops to present draft and final resettlement framework, IPPF (if needed), resettlement plan, DDRs, and IPP (if needed) to executing agency, implementing agencies, local authorities and affected households;
- (viii) determine whether ethnic groups in the area qualify as "indigenous peoples" following characteristics described in ADB SPS, if indigenous peoples will be physically displaced, impacts, if any, are principally resettlement in nature and based on the assessment, prepare IPP;
- (ix) review and assess the capacity of the responsible institutions to plan, update, and implement the social safeguard documents (resettlement framework, IPPF, resettlement plan, DDR, and IPP);
- (x) recommend an institutional strengthening strategy, and/or formation and training of a resettlement unit within the executing agency and implementing agency, if required;
- (xi) carry out meaningful consultations with affected people and facilitate their informed participation regarding social aspects of the Project;
- (xii) assist the executing agency and implementing agencies in disclosing project-related information in form and manner understandable by stakeholders and affected people;
- (xiii) join necessary ADB missions to conduct due diligence (field visits) and finalize social safeguards documents;
- (xiv) ensure social safeguards considerations and indicative costs are included in the over-all Project cost;
- (xv) conduct social safeguards orientation for the executing agency and implementing agencies ensuring clear understanding of requirements of ADB SPS, 2009, resettlement framework, IPPF (if needed), resettlement plan, DDR and IPP (if needed);
- (xvi) in coordination with the Environment Safeguards Consultant, develop grievance redress mechanism including, but not limited to, identification of key members and assessment of capacity needs to address environmental safeguards-related complaints/ grievances; and
- (xvii) provide other advice and deliverables as required by ADB.

## **I. Institutional Analysis and Capacity Strengthening**

17. The consultant will review the existing institutional framework for water and wastewater services in Rajasthan, assess the institutional capacity of the executing agency and the municipal bodies to undertake the roles that they have been assigned under the Project, prepare project implementation arrangements and capacity strengthening programs. The consultant will:

- (i) identify key stakeholders, local administration structures, and relationships among key urban institutions and urban local bodies along with policies, regulations, strategies, and programs;

- (ii) identify policy, institutional, financial, and human resource bottlenecks that constrain effective planning, development, and management of various institutions;
- (iii) review the past and ongoing capacity building initiatives under the RUIDP-I, II and III, and identify the key lessons learned and how these could be incorporated in the RUIDP-IV;
- (iv) assess the managerial, technical, and administrative capacity of the executing agency, implementing agency, municipalities and other relevant agencies regarding operational sustainability of the assets created under the Project; and suggest remedial action plan to build capacity of these institutions to ensure operational sustainability;
- (v) review existing training programs including the performance of the newly established State Urban Training Institute; identify gaps and needs for managerial, technical, and administrative training; and provide suggestions to improve governance and management, and to strengthen capacity for wastewater service provision and effective sector regulation;
- (vi) prepare an institutional analysis addressing all of the above issues, and provide recommendations for institutional and policy reforms; and
- (vii) design and prepare capacity strengthening programs for the executing agency, implementing agency, and other relevant agencies to strengthen their capacity to efficiently implement, operate, and maintain the facilities and techniques to be introduced under the Project; and to ensure the sustainability of project benefits.

#### **J. Stakeholders Consultations Strategy and Public Education Plan**

18. The consultant will carry out stakeholders' consultations during the project preparation phase in coordination with the respective implementing agencies. Participants will include affected households, beneficiaries of subprojects, elected representatives, media, government employees, and other stakeholders. Sufficient number of town-level and state-level workshops and meetings with relevant stakeholders will be conducted to discuss the proposed subprojects. A report will be prepared for detailing out the findings of the consultations, meetings, and workshops. The feedback received from the consultations, meetings and workshops will be incorporated in project design. In addition, consultations held during the socio-economic surveys of households in sample subproject areas and census surveys of affected persons will be considered as appropriate. The consultant will prepare a Stakeholder Consultation Strategy and Public Education Plan to be implemented during the Project implementation. The consultants will:

- (i) carry out stakeholder identification and mapping, and consultations with the community through baseline survey and other means;
- (ii) develop key messages to be delivered to the stakeholders;
- (iii) design information, education and communication (IEC) program;
- (iv) develop programs for outreach to various stakeholders such as government staff, elected representatives, media, students, contractors and workers;
- (v) develop programs for outreach to students and workers in the urban sector, especially women;
- (vi) design systems to get feedback and influence the implementation through mid-course corrections;
- (vii) prepare a community participation strategy and plan for the Project;
- (viii) and carry out the plans and prepare report summarizing the consultations held with stakeholders; prepare community participation strategy and plan for the Project

and identify resources and mechanisms to implement such strategy during the Project.

#### **K. Private Sector Participation**

19. The consultants will:

- (i) review the Government initiatives in engaging private sector for provision of water and wastewater services;
- (ii) assess the opportunities and constraints to private sector participation in water and wastewater sector development, and the current and potential modalities for their involvement; and identify the areas for improving the regulatory and institutional framework; and
- (iii) determine advantages and risks of alternatives for private sector participation in project financing and operation, and recommend suitable option for private sector participation with risk allocation measures to attract private investments.

#### **L. Project Performance Monitoring System**

20. The consultant will undertake a structured problem analysis, prepare a problem tree, and derive a design and monitoring framework in consultation with the government agencies and concerned project stakeholders. The framework will aim to facilitate (i) conceptualization of the proposed project design; (ii) monitoring of the Project implementation; and (iii) evaluation of Project benefits and impacts, emphasizing enhanced participation of beneficiaries and stakeholders. The consultants will develop a project performance monitoring system that includes the content and format of the progress reports, and ensures that the beneficiaries also undertake their own monitoring and evaluation.

#### **M. Reporting**

21. The consultants will submit the following reports: (i) an inception report within 3 weeks of TA start; (ii) an interim report within 2 months of TA start; (iii) various specific reports as required for project processing based on ADB procedures; (iv) a draft final report, IEE, EARF, and resettlement plan and resettlement framework, and draft PAM within 4 months of TA start; and (v) a final report, 4 weeks after receiving comments on the draft final report from the Government and ADB.

22. Reports should address all aspects of this TOR to the level of detail appropriate for the given stage of the TA and include a revised project design and monitoring framework. The consultants shall present key findings in workshops participated by all stakeholders, which will be organized at the inception, interim report stage, and the draft final report.