



बिहार BIHAR

S 135592

सं. 9896 तिथि 29.07.15 मूल्य 1000/-
क्रेता का नाम एवं पता गुडवा, गोकुलपुर, पटना

हरविन्दर पाल सिंह मुद्रिक विक्रेता
ला० न० 13/2005 समाहरणालय, पटना

Memorandum of Understanding

This Memorandum of Understanding is concluded on 2015

between

Bihar Urban Infrastructure Development Corporation, a fully owned development corporation of the Bihar State Government, having its registered address at 303, Maurya Tower, Buddha Marg, Patna 800 001, Bihar, hereinafter referred to as BUIDCo,

and,

Gaya Municipal Corporation, a fully owned municipal corporation of in the State of Bihar, having its registered address at Gaya Nagar Nigam, Near Kedarnath Market, Gaya - 823001, Bihar, here in after referred to as GMC,

whereas,

BUIDCo, has or will receive grant funding from the Bihar State Government under a loan from the Asian Development Bank (ADB) for the implementation of the Bihar Urban Development Investment Program (BUDIP) hereinafter referred to as the Program, including urban water supply and sewerage works in 2 towns in Bihar including Bhagalpur and Gaya.

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and whereas,

BUIDCo, will procure the services of a **contractor** under a Contract accepted by ADB (hereinafter referred to as the "**Contract**" for rehabilitation, renewal and operation during a multi-year period of the entire Gaya water supply system hereinafter referred to as "**Contracted Services**",

now,

BUIDCo and GMC, hereinafter referred to as **the Parties** wish to conclude an agreement on their responsibilities and tasks under **the Program**, to be implemented prior to the signing of the **Contract** and during the implementation of **Contracted Services** and have agreed as follows:

Agreed Main Principles of Cooperation

BUIDCo is responsible for the proper implementation of the Program. BUIDCo will select a contractor that will be responsible for both the construction works as well as the provision of the operational services for urban water supply in Gaya.

GMC, as Urban Local Body (ULB), will make all necessary arrangements needed to comply with the requirements on User Charges and Financial Governance as specified in Table 10: "Urban Service Financial Governance and Delivery Improvement Action Plan" of the Framework Financing Agreement (refer Annex 3) of the ADB loan (attached as Annex 1) and will further strengthen its Water Section through reformed institutional arrangements and capacity building.

GMC will monitor the performance of the Contractor operating the Gaya water supply facilities as part of the Contracted Services and will be responsible for compliance with all requirements related to User Charges and Financial Governance as specified in the Framework Financing Agreement of the ADB Loan.

The Parties have agreed on a further elaboration of their cooperation as included in Annex 2 to this MoU.

This Memorandum of Understanding is valid for the whole duration of **the Program**.

Date: / /2015

On behalf of Bihar Urban Infrastructure
Development Corporation

Managing Director

4/9/15
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On behalf of Gaya Municipal Corporation

Municipal Commissioner

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Witness

4/9/15
Arifur Alam

Witness

1. ~~V.K. Sharma~~, V.K. SHARMA, PM, BUIDCo
4/9/15

Table 10: Urban Service Financial Governance and Delivery Improvement Action Plan

	Physical Investment Activities	Non-Physical Investment Activities on user charges	Non-Physical Investment Activities on financial governance
0 month (Baseline)	The implementing agency issues bid notifications.	ULB submits an application to state government for assistance.	ULBs complete migration to double entry accrual-based accounting system for water supply and sewerage operations.
By 18 th month (1 year and 6 months)	The implementing agency awards the major works	State government drafts a policy on user charges and target subsidy on water supply and sewerage operations. State government prepares a plan and draft rules on administrative advisory body for recommending user charge structure. State government drafts specifications for billing software to initiate user charging. Consultants draft the rules on penal actions for non-payers. State government organizes public consultation on user charges.	State government reviews the laws, rules and regulation in Bihar and the ULB and identify the necessary legal modifications for implementation of ring fencing. State government prepares a baseline report on the water supply and sewerage operations to be ring fenced.
By 30 th month (2 years and 6 months)	The contractor prepares engineering designs, and the implementing agency approves the engineering designs.	The ULB accepts the cost of optimum water supply and sewerage operations. State government continues to organize public consultation on user charges. State government adopts rules on establishing an advisory body for recommending user charge structures.	State government assists the ULB in maintaining double entry accrual-based accounting system for water supply and sewerage operations for 2 financial years. State government proposes an operational model for ring fencing the water supply and sewerage operations. State government prepares a five-year operational model for water supply and sewerage operations.
By 54 th months (4 years and 6 months)	The contractor completes construction works and prepares operations manual. The contractor completes installation of water meters for commercial and industrial users first, and then household users gradually.	State government continues to organize public consultation on user charges. The advisory body recommends specific user charges for the ULB. The ULB adopts the user charges.	The ULB modifies and adopts the operational model for water supply and sewerage. The ULB reorganize the water and sewerage office based on the adopted operational model.

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	Physical Investment Activities	Non-Physical Investment Activities on user charges	Non-Physical Investment Activities on financial governance
		<p>The ULB adopts the rules on penal actions.</p> <p>The ULB procures billing system to initiate user charging.</p> <p>Operations staff in the ULB takes skills upgrading programs.</p> <p>The contractor provides staff to increase the O&M staff number for optimum operations</p> <p>The ULB achieves 20% collection efficiency.</p> <p>The ULB adjusts the user charges.</p> <p>The ULB achieves 40% collection efficiency.</p> <p>The ULB adjusts the user charges.</p> <p>The ULB achieves 80% collection efficiency.</p> <p>The ULB adjusts the user charges.</p>	<p>The ULB modifies and adopts the five-year operational plan for water supply and sewerage.</p>
By 56 th month (4 years and 8 months)	The contractor commissions the full system.		
By 57 th month (4 years and 9 months)	(Operation year 1) The contractor operates the system at the target standards.		The ULB recovers repair and maintenance cost (estimated at 10% of the total O&M cost) from the user charges.
By 69 th month (5 years and 9 months)	(Operation year 2) The contractor operates the system at the target standards.		The ULB recovers repair and maintenance cost (estimated at 40% of the total O&M cost) and staff costs in accordance with the state policy from the user charges.
By 81 st month (6 years and 9 months)	(Operation year 3) The contractor operates the system at the target standards.		The ULB recovers the O&M (repair and maintenance, energy and chemicals, comprising 82% of the total O&M cost) and staff cost in accordance with the state policy.
			The ULB makes an internal reserve at equivalent to 1% of the physical infrastructure value each year.

O&M = operations and maintenance, ULB = urban local body.

Source: Asian Development Bank estimates.

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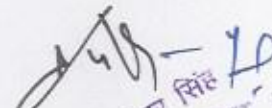
Annex 2

Details on Cooperation between BUIDCo and GMC related to the implementation of BUDIP in Gaya Town

Article 1

Prior to the signing of the Contract, GMC will be responsible to perform the following tasks:

- 1.1. GMC will facilitate the BUDIP Town Committee, which will discuss and finalize all major decisions required for the implementation of the Program;
- 1.2. GMC will ring-fence all assets, facilities, finance and staff of the **Water Supply Section**. This will include the transfer and/or nomination of financial and administrative staff to the **Water Supply Section**;
- 1.3. GMC will approve the organogram of the **Water Supply Section** and will sanction the positions and appoint the Head of Water Section including Technical, Financial and Customer Relations officers;
- 1.4. The **Water Supply Section** will have regular Management Meetings for which minutes are made (at least once per month) and will formulate a Mission Statement to be approved by the GMC;
- 1.5. GMC has to comply with all the statutory requirements related with Water Supply.
- 1.6. GMC, will publicly announce that a **Contractor** will be recruited that will be responsible for water supply operations and will supply a clear explanation of direct impacts for population: Construction works by District Metered Area (DMA)- Introduction of user charges - Increased water supply hours - Improved water quality - Increased water pressure;
- 1.7. GMC will prepare bye-laws on water tariffs and on removal of illegal connections and prepare procedures for disconnection if customers do not pay for water services supplied. Bye-laws are to be approved by the GMC and the State Government;
- 1.8. GMC will depute the staff of the Water Supply Section to the **Contractor**, as per agreement between BUIDCo and the Contractor;
- 1.9. GMC will make the necessary arrangements to discuss the contractually defined time planning and sequence for renewing the water supply distribution systems in each District Metered Area (DMA) with stakeholders concerned.


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Article 2

Prior to the signing of the Contract, BUIDCO will be responsible to perform the following tasks:

- 2.1. BUIDCo will facilitate the BUDIP Steering Committee, which will provide strategic guidance and will meet each 6 months to discuss all prevailing matters under the Program;
- 2.2. BUIDCo will arrange that the GMC is fully supported in performing the tasks as specified under 1.6, 1.7, 1.8, and 1.9;
- 2.3. BUIDCo will prepare an organogram, charter of operations + job descriptions for staff of the Water Supply Section;
- 2.4. BUIDCo will define Key Performance Indicators for Construction works (KPI-C) and Key Performance Indicators that are related to the Operational performance under the Contract (KPI-O);
- 2.5. BUIDCo will describe all technical, commercial and financial tasks and procedures related to water supply operations and the establishment of control mechanisms;
- 2.6. BUIDCo will prepare a proposal for the contractually defined time planning and sequence for renewing the water supply distribution systems in each DMA;
- 2.7. BUIDCo will assess the required level of water user charges, needed to comply with the Framework Financing Agreement (FFA) between the Bihar State Government and the ADB;
- 2.8. BUIDCo will pay a fixed management fee and a performance output related fee for the operational services supplied by the Contractor, as per the contract between BUIDCo and the contractor;

Article 3

During the implementation of the Contract, GMC will be responsible for:

- 3.1. GMC will be responsible for all Employer's risks related to staff deputed to the Contractor;
- 3.2. GMC will be responsible that all land for new construction sites will be handed over to the Contractor. GMC will be responsible for all necessary rights of way and No Objection Certificates (NOC);
- 3.3. GMC will further develop the Water Section. At the start of the Contract, GMC will hand-over the operations of the existing water system to the Contractor;
- 3.4. GMC will monitor the KPI-Os and performance of the contractor.
- 3.5. GMC will prepare an Annual Plan and Budget for the operations of the Water Supply Section;
- 3.6. GMC will take full responsibility for financial management of collected user charges. The GMC will propose the user charges applicable in DMAs that have been renewed and DMAs that have not yet been renewed. The user charges collected by the Contractor will be deposited at a dedicated GMC account.
- 3.7. GMC shall provide the Contractor with continuous and unimpeded access to electricity supply facilities. GMC shall pay to the electricity supply company all the charges for demand, consumption, etc., as levied other than the penalties if levied due to operating negligence of the Contractor or power factor surcharges.
- 3.8. GMC will be responsible for an external audit of annual income and expenditures of the Water Supply Section;
- 3.9. GMC, will monitor the customer helpdesk established and operated by the Contractor for dealing with customer complaints, reports on pipe leakages, etc.;

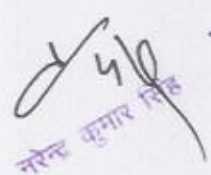
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Article 4 During the Implementation of the Contract, BUIDCo will be responsible for:

- 4.1. BUIDCo will be responsible for all contract and contract related matters that have not been specifically specified under Article 3;
- 4.2. BUIDCo will establish an office at Gaya where permanent staff of the Project Implementation Unit (PIU) and the Design and Supervision Consultant (DSC) will be stationed;
- 4.3. BUIDCo will be responsible for timely payment of capital expenditures and management fee;
- 4.4. At the end of the Contract, BUIDCo will ascertain that the water supply system will be handed over free of any dispositions / claims to the GMC.
- 4.5. In case of any dispute with respect to this MoU between the parties the same shall be floored before the Secretary of the Steering Committee. The decision of Secretary of the Steering Committee upon the issue shall be final and binding upon all the parties.

Article 5 GMC Personnel :

1. Posting of Deputation Personnel to the Contractor
 - a. On the Operation Service Commencement Date, or as soon as practicable thereafter, GMC shall, subject to applicable procedures, depute such number of existing employees of the Water Supply Section of GMC to the Contractor for duties in the Service Area as stated in the Operation and Maintenance Plan. In the course of the Contract GMC shall strive to recruit and depute additional staff for job titles as specified in the Operation and Maintenance Plan.
 - b. GMC shall provide the Contractor with details [name, age, qualifications, and terms of employment] of each employee and shall specify the date on which the relevant employee shall report to the Contractor for duty.
2. Employment
 - a. **Deputation Personnel.** It is expressly understood between the Parties that the deputed Deputation Personnel shall not have any employment relationship with the Contractor and the Contractor's performance under this Contract does not entitle the Contractor to claim an employer-employee relationship with any of the Deputation Personnel on the expiry or at any time before or after expiry of this Contract. The Contractor shall not by its acts or Omission, provide any direct or indirect indication to the Deputation Personnel regarding their employment or chances of employment directly with the Contractor
 - b. **Contractor's Personnel.** It is expressly understood between the Parties that the employees, other than the deputed Deputation Personnel, who are directly employed by the Contractor shall not have any employment relationship with GMC and BUIDCo as the case may be and Contractor's performance under this Contract does not entitle such employees to claim employment or continuation of employment with GMC on expiry or at any time before or after expiry of this Contract. The Contractor should at all times assume full legal and social responsibility towards such employees as employer and shall not by its acts or Omission provide any direct or indirect indication to the employees regarding their employment or chances of employment directly with GMC.

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3. Notification to Deputation Personnel

GMC shall issue a letter to each existing employee advising him/her of the proposed deputation of the Deputation Personnel to the Contractor for the purposes of the Contract, and that no changes shall be made to their existing terms of employment by the Corporation due to the deputation.

4. Management of Deputation Personnel

- a. The Contractor shall have day to day line management responsibility for all Deputation Personnel from the date the Deputation Personnel are deputed to it.
- b. GMC shall ensure that the deputed employees directly report to and receive instructions from the Contractor and that the Contractor shall have full powers and responsibility for the management of the employees.

5. Wages of Deputation Personnel

- a. GMC shall be liable to pay the deputed employees' rates of wages as are current at the date the employees are deputed to the Contractor. During the term of the deputation, the employees shall be entitled to wages, increments, bonus, leave with wages, compensation and all other employee benefits and entitlements in the same manner as such employees would have been entitled to in the employment of the GMC in absence of such deputation.
- b. GMC shall maintain any further remuneration and benefits in kind received by the deputed employees at the date the employees are deputed to the Contractor including pension benefits, medical and welfare arrangements, insurances and social security contributions. GMC shall continue to observe conditions of labour in accordance with the governing Laws.
- c. The Contractor shall be responsible for day to today maintenance of attendance, reporting absenteeism if any, work allocation and performance monitoring of Deputation Personnel.
- d. Nothing contained herein shall oblige GMC, in any manner whatsoever, to pay any wages, increment, bonus, compensation or any other employee benefit or entitlement to the persons directly employed by the Contractor.

6. Labor Laws

The Contractor shall comply with all the relevant labour Laws that apply to Deputation Personnel, and shall duly afford to them all their legal rights. The Contractor shall keep GMC informed and, where necessary, consult with GMC, as the case may be, in respect of any discussions between the deputed Deputation Personnel and the relevant trade unions and any actual or threatened industrial disputes which could prevent or interfere with the proper fulfilment of the Contractor's obligations under this Contract.

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7. Staff Re-allocation

The Contractor shall provide notice reasonably in advance and consult with GMC regarding any organizational changes the Contractor plans to introduce, which may affect the re-allocation of deputed Deputation Personnel and the Contractor shall have to take into consideration any submissions made by GMC or the deputed Deputation Personnel (individually or collectively).

8. Occupational Health and Safety

Precautions, no less onerous than that already in existence and being maintained by GMC, but in accordance with applicable Indian Laws and standards, shall be taken by the Contractor to ensure the occupational health and safety of the Deputation Personnel whilst performing duties required by the Contractor under this Contract. The Contractor shall, ensure that suitable arrangements are made for all necessary hygiene requirements and for the prevention of epidemics. The Contractor shall maintain such records and make such reports (if any) concerning health, safety and welfare of persons, and damage to property as are required under the governing Laws.

9. Repatriation of Deputation Personnel

The Contractor may, by written notice to the Engineer, request after providing adequate reasoning, to repatriate or remove (or cause to be removed) any Deputation Personnel in the Site in order for the Contractor to properly fulfill its obligations under the Contract. If appropriate, GMC shall then depute (or cause to be deputed) a suitable replacement or reserves full right to deny such deputation.

10. Personnel Policies

- a. The Contractor shall establish policies in relation to the deputed Deputation Personnel that will allow the Services to be performed safely, reliably in accordance with the provisions of this Contract and consistent with the standards of a reasonable and prudent Contractor and shall get the said policies approved by GMC before implementing the same. In no event will the Contractor establish any policy that is contrary to any existing policy of GMC and its Water Section and in the event there is a conflict between GMC's policy and the Contractor's policy, GMC's respective policy will prevail.
- b. The compliance with the above policies shall be subject to any waivers which may be requested by the Contractor from time to time and which may be granted by GMC, as the case may be, under governing Laws to ensure the efficient and effective operation and maintenance of the facilities, provision of the Services by the Contractor, and proper fulfillment of the Contractor's obligations under the Contract.

11. Disorderly Conduct

The Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst the deputed Deputation Personnel, and to preserve peace and protection of persons and property in the neighbourhood of the Service Area against such conduct.

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12. Safety Precautions

The Contractor shall comply with all applicable safety regulations in its access arrangements and operations in the Service Area.

13. Indemnity

- a. GMC and BUIDCo shall not be liable for, and the Contractor shall indemnify, defend and hold harmless, GMC and BUIDCo's sub-contractors, agents and employees (excluding the deputed Deputation Personnel), from any and all claims for loss, damage and expense of whatever kind and nature, including all related costs and expenses, in respect of termination of a Deputation Personnel whilst on duty in the Service Area (except in relation to the repatriation of Deputation Personnel under paragraph 1.8 of this Schedule) and in respect of loss of, or damage to, any third party property to the extent that the same arises out of any negligent act, omission, breach of this Contract, breach of the Contractor's statutory obligations and duties, breach of a duty of care imposed by law on GMC or anyone directly or indirectly employed by GMC or its Water Section, its Contractors and sub-contractors or their respective officers, agents or employees.
- b. GMC and BUIDCo shall not be liable for, and the Contractor shall indemnify, defend and hold harmless GMC and BUIDCo from any and all claims of whatever kind or nature from the employees of the Contractor, including all related legal costs and expenses, in respect of employment, termination or change in terms of employment of such employees and any other accrued benefits including pension benefits, personal injury to, or death of, Contractor's employees whilst on duty on behalf of the Contractor.

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Bihar Urban Development Investment Program (RRP IND 41603)

[FOR LOAN NEGOTIATIONS] FRAMEWORK FINANCING AGREEMENT

Parties	This Framework Financing Agreement ("FFA") dated [] is between India, acting by its President ("INDIA"), and Asian Development Bank ("ADB").												
MFF Investment Program	<p>INDIA is committed to and will implement the Bihar Urban Development Investment Program, which is an integral part of the Roadmap for Bihar. Both the Roadmap and the Investment Program are described in Schedule 1 hereto.</p> <p>The total cost of the Bihar Urban Development Investment Program over the period 2012 to 2020 is expected to \$286 million (two hundred eighty six million US dollars) equivalent. The total cost of the Roadmap, over the period 2010 to 2020 is expected to be \$835 million (eight hundred thirty five million US dollars) equivalent.</p>												
Multitranchise Financing Facility	<p>The Multitranchise Financing Facility (the Facility) is intended to finance subprojects under the Investment Program provided that such subprojects comply with the criteria set out in Schedule 4 hereto and that understandings set out in this FFA are complied with.</p> <p>These may include:</p> <ul style="list-style-type: none">(i) Improving urban service infrastructure through investment subprojects;(ii) Improving operations and maintenance (O&M) of urban service assets;(iii) Improving urban service planning and delivery management;(iv) Enhancing project management and implementation skills and transparency. <p>This FFA does not constitute a legal obligation on the part of ADB to commit any financing. Exercised reasonably, ADB has the right to deny any financing request made by INDIA, cancel the uncommitted portion of the Facility, and withdraw INDIA's right to request any financing tranche under the Facility. Financing tranches may be made available by ADB provided matters continue to be in accordance with the general understandings and expectations on which the Facility is based and which are laid out in this FFA.</p> <p>This FFA does not constitute a legal obligation on the part of INDIA to request any financing. INDIA has the right not to request any financing under the Facility. INDIA also has the right at any time to cancel any uncommitted portion of the Facility.</p> <p>INDIA and ADB may exercise their respective rights to cancel the Facility or any uncommitted portion thereof, and ADB may exercise its right to refuse a financing request, by giving written notice to such effect to the other parties. The written notice will provide an explanation for the cancellation or refusal and, in the case of a cancellation, specify the date on which the cancellation takes effect.</p> <p>Financing Plan</p> <p>The financing plan for the Bihar Urban Development Investment Program is summarized below.</p> <table><tr><th>Financing Sources</th><th>Total (\$ million)</th><th>Share (%) of Total</th></tr><tr><td>Asian Development Bank</td><td>200</td><td>70</td></tr><tr><td>State of Bihar</td><td>86</td><td>30</td></tr><tr><td>Total</td><td>286</td><td>100</td></tr></table>	Financing Sources	Total (\$ million)	Share (%) of Total	Asian Development Bank	200	70	State of Bihar	86	30	Total	286	100
Financing Sources	Total (\$ million)	Share (%) of Total											
Asian Development Bank	200	70											
State of Bihar	86	30											
Total	286	100											

Financing Terms	<p>ADB will provide loans to finance subprojects under the Investment Program, as and when the latter are ready for financing, provided, INDIA is in compliance with the understandings hereunder, and the subprojects are in line with those same understandings. Each loan will constitute a tranche.</p> <p>Each tranche may be financed under terms different from the financing terms of previous or subsequent tranches. The choice of financing terms will depend on the project, and ADB's financing policies, all prevailing on the date of signing the legal agreement for such tranche.</p> <p>Tranches may be provided in sequence or simultaneously, and some may overlap in time with each other.</p> <p>There is no maximum or minimum size for a tranche.</p> <p>Commitment charges are not payable on the Facility. They are payable only on financing actually committed by ADB as a loan. ADB rules on commitment charges, which are in effect when the legal agreements are signed for a tranche, will apply with respect to such tranche.</p> <p>Amount</p> <p>The maximum financing amount available under the Facility is two hundred million US dollars (\$200,000,000). It will be provided in individual tranches from ADB's Ordinary Capital Resources.^a</p> <p>Availability Period</p> <p>The last date on which any disbursement under any tranche may be made will be 31 December 2020. The last financing tranche is expected to be executed no later than 31 December 2017.</p> <p>Terms and Conditions</p> <p>India will cause the proceeds of each tranche to be applied to the financing of expenditures of the Investment Program, in accordance with conditions set forth in this FFA and the legal agreements for each tranche.</p>
Execution	<p>The executing agency will be the state government of Bihar, acting through its Urban Development and Housing Department. The executing agency will implement the Investment Program in accordance with the principles set forth in Schedule 1 to this Agreement, and as supplemented in the legal agreements for each tranche.</p>
Periodic Financing Requests	<p>INDIA may request, and ADB may agree, to provide loans under the Facility to finance the Investment Program upon the submission of a Periodic Financing Request (PFR). Each PFR should be submitted by India. INDIA will make available to the state government of Bihar the proceeds of the tranche in accordance with the related PFR, and the legal agreements for the tranche.</p> <p>Each individual tranche will be for an amount of no less than fifteen million US dollar (\$15,000,000), or its equivalent. ADB will review the PFR(s) and, if found satisfactory, prepare the related legal agreements.</p>

	<p>The subprojects for which financing is requested under the PFR will be subject to the selection criteria set out in Schedule 4 hereto, satisfactory due diligence, and preparation of relevant safeguard and fiduciary frameworks and other documents. The Facility will be implemented in accordance with the general framework set out in Schedule 3 to this FFA, and the Facility Administration Manual agreed between INDIA and ADB.</p> <p>Until notice is otherwise given by INDIA, Secretary, Additional Secretary, Joint Secretary, any Director or any Deputy Secretary in the Department of Economic Affairs, Ministry of Finance will be INDIA's authorized representative for purposes of executing PFRs.</p>
General Implementation Framework	The Facility will be implemented in accordance with the general framework set out in Schedule 3 hereto.
Procedures	<p>Tranches to be provided under the Facility will be subject to following procedures and undertakings:</p> <ul style="list-style-type: none"> (i) India will notify ADB of a forthcoming PFR in advance of the submission of the PFR. (ii) India will submit a PFR in the format agreed with ADB. (iii) ADB may, in its sole discretion, for the reasons provided, decline to authorize the negotiation and execution of any legal agreement for a tranche. (iv) If ADB confirms acceptance of the PFR, the legal agreements will be negotiated and executed by the parties.
PFR information	<p>The PFR will substantially be in the form attached hereto, and will contain the following details:</p> <ul style="list-style-type: none"> (i) Loan, grant, guarantee, or cofinancing amount; (ii) Description of subprojects to be financed; (iii) Cost estimates and financing plan; (iv) Implementation arrangements specific to the subprojects; (v) Confirmation of the continuing validity of and adherence to the understanding in this Agreement; (vi) Confirmation of compliance with the provisions under previous Loan Agreement(s) [and Project Agreement(s)], as appropriate; (vii) Other information as may be required under the Facility; and (viii) Administration Manual.
Safeguards	<p>Attached as Schedule 5 are references to the Safeguard Frameworks that will be complied with during the implementation of the Facility.</p> <p>ADB's Safeguard Policies in effect as of the date of signing of legal agreements for a tranche will be applied with respect to the subprojects financed under such financing tranche.</p>
Procurement	All goods and services to be financed under the Facility will be procured in accordance with ADB's <i>Procurement Guidelines</i> (2010, as amended from time to time).
Consulting Services	All consulting services to be financed under the Facility will be procured in accordance with ADB's <i>Guidelines on the Use of Consultants</i> (2010, as amended from time to time).

Advance contracting; Retroactive financing	Under each tranche, ADB may, subject to its policies and procedures, allow on request (i) advance contracting of works, goods, services and consultants; and (ii) retroactive financing of eligible expenditures for works, goods, services and consultants up to 20% of proposed individual loan, incurred prior to loan effectiveness but not earlier than 12 months before the date of signing of the related legal agreement. INDIA and the state government of Bihar acknowledges that any approval of advance contracting and/or retroactive financing will not constitute a commitment by ADB to finance the related project.
Disbursements	Disbursements will be made in accordance with ADB's <i>Loan Disbursement Handbook</i> (2007, as amended from time to time). Each loan under the Facility will have its own imprest account in the Reserve Bank of India. The state government of Bihar through the executing agency (Urban Development and Housing Department) may establish a second-generation imprest account (SGIA) for each loan, if necessary or required, in a current account with a commercial bank. The amount at any given time in the imprest accounts and second-generation imprest accounts shall not exceed 6 months of estimated expenditures or 10% of the related loan amount, whichever is lower. Individual payments under the statement of expenditures procedures (SOE) will be \$100,000.
Monitoring, Evaluation, and Reporting Arrangements	Urban Development and Housing Department, which will act as the executing agency of the investment program, will be responsible for overall implementation of the Investment Program. Urban Development and Housing Department has a project director, who is responsible for overall supervision and continuous monitoring of the Investment Program. The project director will be responsible for coordinating with INDIA and the implementing agency, and coordinating with and reporting to ADB. Schedule 2 hereto sets as the Design and Monitoring Framework for the Facility, against which the implementation effectiveness will be evaluated.
Undertakings	Attached as Schedule 6 are the undertakings provided by INDIA and the state. [to be] Signed in New Delhi as of the day and year first above written.

^a Provisions of the Ordinary Operations Loan Regulations applicable to LIBOR-Based Loans Made from ADB's Ordinary Capital Resources, dated 1 July 2001, would apply to each loan, subject to modifications, if any, that may be included under any Loan Agreement (said Ordinary Operations Loan Regulations as so modified, if any, being hereinafter called the Loan Regulations).

INDIA

Asian Development Bank

(Authorized representative)

(Authorized representative)

SCHEDULE 1

MULTITRANCHE FINANCING FACILITY CONSTITUENTS

A. Roadmap

1. **Urban Environment Improvement for Economic Growth.** Improvement in the urban environment and life will lead to better health status of the urban population and hence to an increase in the labor productivity.¹ In order to unleash the economic growth potential of Bihar, it is important to improve the major urban services, such as water supply, sewerage and solid waste management (SWM) to attain better health status of the urban population in the second to the fifth largest towns with economic growth potential (Bhagalpur, Darbhanga, Gaya and Muzaffarpur). This will empower the four towns to continuously play their roles as the engines of economic growth in Bihar.

2. **Urban Sector Performance in Bihar.** Status of urban service delivery (water supply, sewerage and SWM) in the top 24 economic center towns of Bihar was examined during the project preparatory technical assistance. The results revealed that the performance was very poor and varied substantially from one town to another – water supply coverage differed from 20% to 82% of the town population; water supply quantity was between 0 to 92 liters per capita per day; water supply hours was four hours to 12 hours per day; sewerage coverage was 0 except for Patna at 43% of the town population; waste collection covered 5% to 39% of the town population; and there was no landfill site, resorting to illegal dumping of the collected wastes. Most performance indicators were even below the national average. The national average and the median of the 24 towns in Bihar are shown in Table 1.

Table 1: Urban Service Delivery Performances in 24 Largest Towns of Bihar

	Water Supply coverage (%)	Water Supply per capita (lpcd)	Hours of Water Supply (hpd)	Metered connections (%)	Sewerage coverage (%)	SWM coverage (%)	Landfill disposal (%)
National targets	94 ^a -100 ^b	135 ^c	24 ^c	100 ^c	70 ^d -100 ^e	n/a	100 ^f
National average	81	123	4	25	28	78	2
State target	n/a	n/a	n/a	n/a	n/a	100 ^g	n/a
24 towns median	40	23	6	0	0	22	0
Patna (capital)	36	92	14	0	43	38	0
Bhagalpur	81	57	5	0	0	30	0
Darbhanga	36	28	12	0	0	35	0
Gaya	82	29	5	0	0	35	0
Muzaffarpur	30	76	11	0	0	30	0

lpcd = liters per capita per day, hpd = hours per day, n/a = not available, SWM = solid waste management.

^a The Millennium Development Goal.

^b The 11th Five Year Plan 2007-2012.

^c A handbook on Service Level Benchmarking, June 2010.

^d Municipal Solid Wastes Rules (2000).

^e Urban Development and Housing Department's draft strategy for solid waste.

Source: ADB, 2008. *Project Preparatory Technical Assistance to India for Preparing Bihar Urban Development Project*. Manila.

3. **Sector Goals and Target.** The Government of India sets out performance targets for the three urban services in various planning, policy, instructional and guidance documents. The state government of Bihar's own policy complements the performance target setting. Table 1 shows

¹ Water and Sanitation Program, 2006. *The Economic Impact of Inadequate Sanitation in India*. India.

that the performance of all three services in Bihar are far from the national and state targets. Water supply service performance lacks uniformity in improvement amongst the three aspects (coverage, quantity and hour) toward the national targets. Absence of sewerage systems in most towns and sanitary landfills in all towns resulted in dire performance in sewerage and SWM, far from the national targets.

4. **Analysis of Sector Performance in Four Subproject Towns.** The performance indicators show the issues are centered on coverage, quantity and duration of urban services due to inadequate of urban infrastructure in size and condition.² As Problem Tree shows, inability to bring up and sustain the water supply, sewerage and SWM services at the national target levels in the four towns mainly attributed to two main causes: inadequate new investment, and operations and maintenance (O&M). The two causes stemmed from four root problems:

- (i) **User charges.** None of the four urban local bodies (ULBs) levies user charges for water supply services and, therefore, ULBs cannot recover O&M cost. The Public Health Engineering Department (PHED) of the state government operates and maintains the water supply system on behalf of the ULB. Identification of accurate cost of the service is important, but ULBs cannot capture whole revenues and expenditures of each urban service due to absence of (a) accrual-based accounting, and (b) apportionment of common expenses to different services and activities.
- (ii) **Accounting practice.** Even though the ULBs start levying user charges, absence of a ring-fenced account for each urban service does not allow accumulating the internal reserve for future major investments. This will lead ULB to wait for grants from the various national and state schemes for the major capital investments, which resulted in failure to expand infrastructure commensurate with the demographic growth.
- (iii) **Human resources.** The staff number, whether PHED or ULBs, are too small to sustain the water supply and sewerage services at the national goal level. This is not only due to lack of budgeted staff positions in ULBs, but also to vacancies in the budgeted staff positions created by the cap on staff recruitment. Coupled with ULBs' difficulties in attracting qualified personnel, it is hard to prepare a long-term plan and project proposals, which attract financing from external aide agencies and the private sector.
- (iv) **Public administration.** The absence of the municipal civil servant system across ULBs makes it difficult to accumulate human capital, that is skills and knowledge on O&M within ULBs. Many PHED and ULB staff are on contract with multiple assignments, hardly meeting the required qualification levels, and rarely focusing on tasks which staff are trained.

5. **Roadmap for Achieving Performance Targets.** There is a clear indication that public institutions have been unable to deliver public goods and service, and this justifies public intervention in the sector. In order to achieve the national and state targets on water supply, sewerage and SWM services, the Asian Development Bank (ADB), through project preparatory technical assistance (PPTA), assisted formulation of a roadmap in five-year intervals, that is, a plan that matches short-term and long-term goals with specific solutions to help meet those goals, as shown in Table 2. The key targets by 2020 are:

- (i) Water supply coverage at 95% of the population;

² During the fact-finding mission in May 2011, the Mission confirmed in Bhagalpur that the existing water treatment has outlived their design life and intended service period since its establishment in the 1850s. This has resulted severe deterioration of basic urban services.

- (ii) Water supply quantity at 135 liters per capita per day;
- (iii) Water supply duration for 24 hours on 7 days per week;
- (iv) Non-revenue water at less than 20% of the total water produced;
- (v) Sewerage coverage at 70% of the population;
- (vi) Waste collection coverage at 100% of the waste generated; and
- (vii) Waste disposed of at sanitary landfills at 100% of the unprocessed waste.

The roadmap envisaged (i) a steep improvement in all performance targets between 2010 and 2015, and (ii) continuation of services quantity and quality coupled with coverage expansion between 2015 and 2020.

Table 2: Roadmap for Achieving Performance Targets in Four Subproject Towns

	2010 baselines	2015 targets	2020 targets	National & state targets
Water supply				
Supply coverage (% of population)	36-82	90	95	94-100
Quantity per capita per day (lpcd)	28-76	135	135	135
Duration per day (hpd)	5-12	24	24	24
Non-revenue water (% of water produced)	25-40	20	15	20
Metered connections (% of connections)	0	90	95	10
Sewerage				
Sewer coverage (% of population)	0	70	70	70-100
Septic tank (% of population)	48-80	30	30	n/a
SWM				
Collection coverage (% of population)	60-70	100	100	100
Recycling (% of collected waste)	0	68-88	59-74	n/a
Sanitary landfill (% of remaining waste)	0	100	100	100

lpcd = liters per capita per day, hpd = hours per day, n/a=not available, SWM=solid waste management.

Source: ADB. 2008. *Project Preparatory Technical Assistance to India for Preparing Bihar Urban Development Project*. Manila.

6. **Importance of Roadmap.** The roadmap will bring about following positive influences to growth, poverty reduction, gender and development and inclusiveness.

- (i) **Growth.** The roadmap will reduce the cases of water-borne diseases in the four towns from 114,000 in 2010 to 25,000 by 2020. This will increase the productivity of the four towns, which are engines of economic growth in Bihar.
- (ii) **Poverty reduction and inclusiveness.** The roadmap will facilitate the ongoing and future poverty reduction programs in four towns by enabling the slums to be a part of an integrated system of urban services.
- (iii) **Gender and development.** The roadmap will minimize the gap in access to services between men and women by providing universal access to water supply, sewerage and SWM.

7. **Success Factors for Better Performance.** The analysis of sector performance in four subproject towns in the earlier paragraphs suggests the roadmap focus on the following aspects so as to remove the bottlenecks for achieving the target service standards:

- (i) Improvement in water supply, sewerage and SWM infrastructure;
- (ii) Introduction of user charges for water supply, sewerage and SWM;
- (iii) Improvement in accounting practice specific to water supply, sewerage and SWM operations;
- (iv) An increase in the number of operations staff, coupled with capacity building; and
- (v) Modifications in urban service administration structure.

8. **Key Players of Roadmap Implementation.** Prior to enactment of the Bihar Municipal Act in 2007, PHED was responsible for creation and O&M of the water supply infrastructure.

User charges were nonexistent. As Table 3 shows, the Bihar Municipal Act conferred all mandates for water supply, sewerage and SWM service delivery on ULBs. ULBs are entitled to levy user charges, and have an option to entrust the third parties for creation and O&M of their assets on their behalf, considering their staffs' capacity. There is no overlap of mandates and responsibilities amongst different state agencies and ULBs.

Table 3: Responsibility for Roadmap Implementation

		Arrangements	
		Current Practice	Under BMA 2007
Water supply			
•	Asset creation	PHED	ULB, but allowed to entrust
•	O&M	ULB and PHED	ULB, but allowed to entrust
•	User charges	No user charges	ULB
Sewerage			
•	Asset creation	No infrastructure	ULB, but allowed to entrust ^a
•	O&M	No operations	ULB, but allowed to entrust
•	User charges	No user charges	ULB
SWM			
•	Asset creation	No infrastructure	ULB, but allowed to entrust
•	O&M	ULB	ULB, but allowed to entrust
•	User charges	No user charges	ULB

BMA = Bihar Municipal Act of 2007, PHED = Public Health Engineering Department, O&M = operations and maintenance, SWM = solid waste management, ULB = urban local bodies.

Note: The Bihar Municipal Act governs water supply related matters in sections 190 and 191; sewerage related matters in sections 193, 194, 208, 216 and 217; and SWM related matters in sections 220, 221 and 222.

Source: ADB. 2008. *Project Preparatory Technical Assistance to India for Preparing Bihar Urban Development Project*. Manila.

9. **Physical Investment for Meeting 2020 Targets.** Based on the roadmap, the physical requirements for the major investment items were estimated as shown in Table 4. In total, four water treatment plants at the total capacity of 400 million liters per day, 1,500 kilometers of distribution network pipes, 140,000 household water connections, four sewage treatment plants at the total capacity of 180 million liter per day, 1,800 kilometers of sewer network pipes, 190,000 household sewerage connections, and four sanitary landfills at the total capacity of 7 million tons.

Table 4: Additional Major Physical Investments Required for 2020 Targets

	Water Supply			Sewerage			SWM
	WTP ^a (mld)	Pipes ^b (km)	Connections (households)	STP ^a (mld)	Pipes ^c (km)	Connections (households)	Landfills ^d (mt)
Bhagalpur	93	221	23,900	47	429	56,000	2.0
Darbhanga	60	418	36,400	32	308	40,500	1.2
Gaya	165	425	23,900	54	549	57,400	2.1
Muzaffarpur	77	484	54,500	43	489	53,800	1.8
Total	395	1548	138,700	176	1775	207,700	7.1

km = kilometers, mld = million liters per day, mt = million tons, STP = sewage treatment plant; SWM= solid waste management; WTP=water treatment plant.

^a Design capacity for 2030.

^b Distribution networks.

^c Sewer networks.

^d Design capacity up to 2020.

Source: ADB. 2008. *Project Preparatory Technical Assistance to India for Preparing Bihar Urban Development Project*. Manila.

10. **Needs for Further Physical Investment.** The government has been the most prominent financier in Bihar through the various national schemes. As Table A1.5 shows, the physical investment requirements to water supply, sewerage and SWM subsectors under the Roadmap in the four towns are estimated at about Rs21 billion, Rs11 billion and Rs3 billion respectively. The

urban infrastructure development scheme for small and medium towns, the National Ganga River Basin Authority, and other national and state budgetary allocations are available, but are not adequate to meet the investment requirement.

Table 5: Estimates on Investment Cost and Financing Availability
(Rs million)

	Investment cost	Sources			Financing unidentified
		UIDSSMT financing	NGRBA financing	Other financing	
Watersupply					
Bhagalpur	3,400	0	0	300	3,100
Darbhanga	13,500	0	0	100	13,400
Gaya	2,900	0	0	100	2,700
Muzaffarpur	1,400	1,000	0	400	0
Subtotal	21,200	1,000	0	900	19,300
Sewerage					
Bhagalpur	2,800	0	1,600	1,000	200
Darbhanga	2,400	0	0	0	2,400
Gaya	2,900	0	0	0	2,900
Muzaffarpur	3,100	0	0	0	3,100
Subtotal	11,200	0	1,600	1,000	8,600
SWM					
Bhagalpur	800	0	0	0	800
Darbhanga	500	0	0	0	500
Gaya	900	0	0	0	900
Muzaffarpur	700	0	0	0	700
Subtotal	2,900	0	0	0	2,900
Total	35,300	1,000	1,600	1,900	30,800

NGRBA = National Ganga River Basin Authority, SWM = solid waste management, UIDSSMT = urban infrastructure development scheme for small and medium towns under the Ministry of Urban Development.
In 2010 price.

Source: ADB. 2008. *Project Preparatory Technical Assistance to India for Preparing Bihar Urban Development Project*. Manila.

7. **Cost of Sustaining Urban Services at Government Standards.** Adequate qualified staffing for O&M is the key to achieve the performance targets and sustain the performance level. Based on the international and national best practices of staff numbers necessary to operate at the common international standards, the PPTA estimated the ideal staffing numbers and compared with the recruited staff numbers as shown in Table 6. The figures suggest that while it will require 1,200 O&M staffs, there are only 17% or 200 staff recruited in the three sectors. Coupled with skills upgrading of the existing staff, the four ULBs need to engage six times more staff by the time of completion of the additional physical investment.

Table 6: Additional Staff Required for 2020 Targets

	Water Supply Staff			Sewerage Staff			SWM Staff		
	Current ^a	Ideal	Balance	Current	Ideal	Balance	Current ^a	Ideal	Balance
Bhagalpur	49	186	137	0	60	60	5	80	75
Darbhanga	38	140	102	0	50	50	1	60	59
Gaya	48	200	152	0	40	40	5	90	85
Muzaffarpur	47	150	103	0	65	65	10	70	60
Total	182	676	494	0	215	215	21	300	279

SWM = solid waste management

^a Recruited staff number. Sanctioned positions are more or less double of the current staff number.

Source: ADB. 2008. *Project Preparatory Technical Assistance to India for Preparing Bihar Urban Development Project*. Manila.

8. The cost of operating the improved assets at the government standards is estimated in

Table 7. The results indicates that price of each service at the government standards falls in somewhere between Rs98 and Rs167 per month, except for the water supply service in Gaya which will cost more than Rs274 per month. This suggests that the asset owners will have to implement a stringent user charge to sustain the service.

Table 7: Annual Operations Cost in 2026

	Annual Operations Cost (Rs million)				Total
	Staff	Energy	Chemical and others	Repair	
Water Supply					
Bhagalpur	32	101	35	13	181
Darbhanga	17	19	76	11	122
Gaya	36	25	188	56	305
Muzaffarpur	28	30	45	10	113
Subtotal	113	174	343	90	720
Sewerage					
Bhagalpur	49	48	1	17	114
Darbhanga	34	33	1	12	79
Gaya	55	54	1	21	130
Muzaffarpur	44	43	1	17	105
Subtotal	181	178	3	67	428
Solid Waste Management					
Bhagalpur	82	9	6	16	113
Darbhanga	58	6	4	8	76
Gaya	85	10	15	12	122
Muzaffarpur	79	9	5	10	104
Subtotal	304	34	30	46	414

Source: ADB. 2008. *Project Preparatory Technical Assistance to India for Preparing Bihar Urban Development Project*. Manila.

9. **Non-Physical Investment for Meeting 2020 Targets.** In order to maintain the service standards and financially sustain the operations, the roadmap focuses on the areas of human resource development, and improvements in financial governance and management of water supply, sewerage and SWM operations. Table 8 shows that the cost of non-physical investment is Rs2 billion.

Table 8: Estimates on Non-physical Investment Cost
(Rs million)

	Design and supervision	Institutional development	Training			Total
			Water supply	Sewerage	Solid Waste Management	
Bhagalpur	350	140	0.3	0.2	0.2	490
Darbhanga	820	110	0.2	0.2	0.2	950
Gaya	340	100	0.3	0.2	0.2	440
Muzaffarpur	260	150	0.2	0.2	0.2	410
Subtotal	1,770	500	1.1	0.7	0.8	2,270

Source: ADB. 2008. *Project Preparatory Technical Assistance to India for Preparing Bihar Urban Development Project*. Manila.

10. **Cost of Roadmap.** The total cost of implementing the physical and non-physical investment under the roadmap is estimated at Rs38 billion (\$835 million equivalent) as shown in Table 9 below.

Table 9: Cost of Roadmap Implementation

	Rs in million	\$ in million
Physical investment	35,300	784
Non-physical investment	2,270	51
Total	37,570	835

Source: Asian Development Bank estimates based on Table 5 and 8.

B. ADB's Strategic Roles in Roadmap

11. The country partnership and strategy and ADB's assistance program for 2007–2012 have been designed to support the government's efforts to address the binding constraints in the India's 11th Five Year Plan³ (FYP; April 2007 to March 2012) through four strategic pillars.⁴ One of the strategic pillars puts emphasis on the continuation of ADB's assistance to infrastructure development in various sectors, including urban.

12. In the light of the large financial requirements for the roadmap implementation in Bihar, the Country Operations Business Plan for India 2011–2013 allocates a multitranche financing facility (MFF) up to \$200 million for the Bihar Urban Development Project for 2011 processing. The PPTA 7106-IND: Preparing Bihar Urban Development Project⁵ has been implemented to design a series of subprojects,⁶ reform actions and capacity building in water supply, sewerage and SWM subsectors.

13. **Targets and Principles.** ADB will assist the four towns in attaining the national standards for water supply and sewerage services through physical and nonphysical investments based on the following principles:

- (i) ADB's physical investments will prioritize the financial shortfall in water supply and sewerage infrastructure improvement and will aim to develop a complete system in a town by complementing the ongoing investment;
- (ii) ADB's physical investments will also support financing a portion of a large scale water supply infrastructure improvement, only when parallel financiers for the remaining portions are identified by the state government of Bihar;
- (iii) In the absence of the master plans for SWM⁷ in the subproject towns, considering the complexity in substantial land acquisition and extensive stakeholder consultations, physical investment to SWM infrastructure is most suitable after the subproject towns prepares and adopt the SWM master plans, and therefore will be deferred to future financial assistance.

³ India's 11th Five Year Plan (FYP; April 2007 to March 2012) has set out 27 national targets, covering both economic and social goals which include: (i) clean drinking water to be available to all by 2009, ensuring that there are no slippages by the end of the 11th FYP; and (ii) to treat all urban wastewater by 2011–12 to clean the river waters. Also, the 11th FYP recognizes infrastructure bottlenecks and lack of long-term funds for infrastructure investment as the binding constraints for achieving the goals. The 11th FYP calls for public sector investment in meeting the infrastructure requirements where private participation is less likely.

⁴ The four strategic pillars are: (i) support for inclusive and environmentally sustainable growth; (ii) catalyzing investment through the use of innovative business and financing solutions; (iii) strengthening results orientation; and (iv) emphasizing knowledge solutions, and support for regional cooperation.

⁵ The PPTA was approved on 30 July 2008 at the amount of \$1 million financed by the Japan Special Fund.

⁶ The original scope of the PPTA was improvement of water supply system in Patna city, but the state government of Bihar obtained Jawaharlal Nehru National Urban Renewal Mission grants as the financing source. As a result of this, the state government of Bihar requested ADB to consider financing the projects in four largest cities, Bhagalpur, Darbhanga, Gaya and Muzaffarpur.

⁷ The Support Program for Urban Reform financed by the United Kingdom's Department for International Development has been assisting the urban local bodies in preparing solid waste management master plans.

C. Policy Framework

14. In order to create the sustainable environment for ADB's physical investment in to water supply, sewerage and SWM, it is necessary for the four towns, in collaboration with the state government of Bihar, to undertake following a set of reform action, as recommended under the Jawaharlal Nehru National Urban Renewal Mission:

- (i) Formulation and adoption of a policy on user charges;
- (ii) Establishing a proper target of subsidy;
- (iii) Establishment of an administrative advisory body for recommending user charge structure;
- (iv) Migration to double entry accrual-based accounting system;
- (v) Establishment of accounts dedicated water supply and sewerage operations;
- (vi) Installation and training on billing software to initiate user charging;
- (vii) An increase in the O&M staff number for optimum operations; and
- (viii) Acquisition of higher skills amongst the O&M staff of the ULBs.

The urban finance governance and service delivery improvement action plan is summarized in Table 10.

Table 10: Urban Service Financial Governance and Delivery Improvement Action Plan

	Physical Investment Activities	Non-Physical Investment Activities on user charges	Non-Physical Investment Activities on financial governance
0 month (Baseline) By 18 th month (1 year and 6 months)	<p>The implementing agency issues bid notifications.</p> <p>The implementing agency awards the major works</p>	<p>ULB submits an application for SPUR assistance.</p> <p>Consultants draft a policy on user charges and target subsidy on water supply and sewerage operations. (SPUR)</p> <p>Consultants prepare a plan and draft rules on administrative advisory body for recommending user charge structure. (SPUR)</p> <p>Consultants draft specifications for billing software to initiate user charging. (SPUR)</p> <p>Consultants draft the rules on penal actions for non-payers. (SPUR)</p> <p>The ULB organizes public consultation on user charges.</p> <p>Consultants prepare a public sector comparator for the water supply and sewerage operations.</p> <p>The ULB accepts the cost of optimum water supply and sewerage operations.</p> <p>The ULB continues to organize public consultation on user charges.</p> <p>The ULB adopts rules on establishing an advisory body for recommending user charge structures.</p> <p>The ULB continues to organize public consultation on user charges.</p>	<p>Consultants complete migration to double entry accrual-based accounting system for water supply and sewerage operations. (SPUR)</p> <p>Consultants review the laws, rules and regulation in Bihar and the ULB and identify the necessary legal modifications for implementation of ring fencing. (SPUR)</p> <p>Consultants prepare a baseline report on the water supply and sewerage operations to be ring fenced. (SPUR)</p> <p>Consultants assist the ULB in maintaining double entry accrual-based accounting system for water supply and sewerage operations for 2 financial years. (SPUR)</p> <p>Consultants propose an operational model for ring fencing the water supply and sewerage operations. (SPUR)</p> <p>Consultants prepare a five-year operational model for water supply and sewerage operations. (SPUR)</p> <p>The state government of Bihar amends the Bihar Municipal Act (2007) to create the municipal civil service cadre.</p>
By 30 th month (2 years and 6 months)	The contractor prepares engineering designs, and the implementing agency approves the engineering designs.		
By 54 th months (4 years and 6 months)	The contractor completes construction works and prepares operations manual. The contractor completes installation of		

	Physical Investment Activities	Non-Physical Investment Activities on user charges	Non-Physical Investment Activities on financial governance
	water meters for commercial and industrial users first, and then household users gradually.	The advisory body recommends specific user charges for the ULB. The ULB adopts the user charges. The ULB adopts the rules on penal actions. The ULB procures billing system to initiate user charging. Operations staff in the ULB takes skills upgrading programs. The contractor provides staff to increase the O&M staff number for optimum operations	The ULB modifies and adopts the operational model for water supply and sewerage. The ULB reorganize the water and sewerage department based on the adopted operational model. The ULB modifies and adopts the five-year operational plan for water supply and sewerage.
By 56 th month (4 years and 8 months)	The contractor commissions the full system.	The contractor provides staff to increase the O&M staff number for optimum operations	
By 57 th month (4 years and 9 months)	(Operation year 1) The contractor operates the system at the target standards.	The ULB achieves 20% collection efficiency. The ULB adjusts the user charges.	The ULB recovers repair and maintenance cost (estimated at 10% of the total O&M cost) from the user charges.
By 69 th month (5 years and 9 months)	(Operation year 2) The contractor operates the system at the target standards.	The ULB achieves 40% collection efficiency. The ULB adjusts the user charges.	The ULB recovers repair and maintenance cost and staff costs (estimated at 40% of the total O&M cost) from the user charges.
By 81 st month (6 years and 9 months)	(Operation year 3) The contractor operates the system at the target standards.	The ULB achieves 80% collection efficiency. The ULB adjusts the user charges.	The ULB recovers 100% of the O&M cost (repair and maintenance, staff, energy and chemicals). The ULB makes an internal reserve at equivalent to 1% of the physical infrastructure value each year.

O&M = operations and maintenance, SPUR = the Support Program for Urban Reforms, ULB = urban local body.
Source: Asian Development Bank estimates.

15. Since 2009, the United Kingdom's Department for International Development has been the major but the only development partner in Bihar for the nonphysical investments worth £61 million through the Support Program for Urban Reform (SPUR). All key actions, except for O&M staff increase and capacity building, fall into the scope of SPUR, aiming to deliver the results by 2015. Assistance has been extended on first-come first-serve basis to the 28 ULBs, which includes the four subproject towns.

16. There will be, therefore, distinct development roles between ADB and United Kingdom's Department for International Development — while most of the crucial but challenging reform activities are entrusted to SPUR, the ADB's non-physical investment will be guided by the following strategy:

- (i) ADB's nonphysical investment will first assist the four towns in applying for SPUR; and
- (ii) ADB's nonphysical investment will initially focus on only the human resources aspect of O&M where SPUR does not cover (para. 14, items vii and viii).

17. However, ADB will expand the scope to financial governance and management of water supply and sewerage operations (para. 14, items i, ii, iii, iv, v and vi) in the four towns in case attainment of the SPUR-assisted reforms becomes difficult by the time of Tranche 2.

D. Investment Program

18. **Impact and Outcome.** The impact of the proposed investment program will be the urban population in relatively poor and weak capacity state (Bihar) has improved access to water supply and sanitation facilities. The expected outcome will be the people, especially vulnerable household,⁸ will have access to better quality and sustainable urban water supply and sewerage services in Bhagalpur, Darbhanga, Gaya and Muzaffarpur.

19. **Outputs.** To improve access and make urban services sustainable, the investment program will deliver five outputs:

- (i) **Improved water supply infrastructure in three towns.**¹⁰ To address inadequacy in new investment, as an immediate solution, new raw water intakes, clear water pumping mains, water treatment plants, overhead tanks, distribution networks and water meters will be developed or procured in Bhagalpur and Darbhanga through two subprojects; and a water treatment plant in Gaya, which constitutes a part of large scale investment, through one subproject.
- (ii) **Improved sewerage infrastructure in one town.** To address inadequacy in new investment, new house connections, sewer networks, pumping stations, sewage

⁸ The PPTA report recognizes more "vulnerable households" as those fulfilling five or more of the following criteria: (i) household belongs to most backward communities, (ii) head of household is a woman, (iii) head of household is illiterate, (iv) head of household is working as a daily wage laborer, (v) household with income below poverty line, and (vi) household residing in a *kutcha* house. 9% of women-headed households included in the sample of the PPTA study fall within the category of "vulnerable households" requiring subsidies for connections.

¹⁰ As described in Schedule 4, in case any of the shortlisted water supply or sewerage subprojects receive other funding, or are cancelled due to unforeseeable events, the state government of Bihar will request ADB financing for a standby subproject(s) as an alternative under the subsequent to tranches, so far as the subprojects meet selection criteria in the framework financing agreement.

- treatment plants, maintenance equipment will be developed or procured in Muzaffarpur through one subproject.
- (iii) **O&M of assets created by subprojects improved.** To address deficiency in O&M staff number and skills, all major infrastructures will be constructed and operated by design-build-operate¹¹ contractors, which will field additional O&M staff¹² and provide on-the-job training to the ULB staff for at least five years. Also, permanent ULB staff will take technical courses in India to upgrade their qualifications for asset operations.
 - (iv) **Urban service planning and delivery management improved.** To introduce metered user charges, computerized billing and internal reserves for water supply and sewerage, the consultants under the proposed investment program will prepare long-term business plans, user charge plans¹³ and proposals for creation of water and sewerage accounts for consideration and adoption by the ULBs.
 - (v) **Project management and implementation skills and transparency improved.** To enhance the executing agency's accountability to the financiers and the people of Bihar, and to strengthen the implementing agency's contract management and subproject formulation, teams of consultants will provide the executing and implementing agencies support and on-the-job training through day-to-day collaboration.

¹¹ The scope of contract is to design, supply equipment and materials and carry out civil works to improve the overall water supply system and subsequently to operate and manage the improved system to achieve 24 x 7 pressurized water supply for a certain period of time. The employer will make progress payments during construction, and base payments plus performance bonuses during operation and management period based on agreed criteria and intervals. The employer may extend operation and management portion of the contract.

¹² According to the assessment of the PPTA7106-IND, the current O&M staff numbers are about one-fifth of what is required for an internationally accepted staffing practice. One solution may be to increase ULB's own staff. The subprojects will explore a cost-effective and value-for-money solution by seeking the DBO contractor to provide qualified staff at a competitive price.

¹³ A user charge plan, which gives concessionary rates for the socially vulnerable groups, will be adopted by the 54th months from issuance of the bid notification for the respective works contracts.

SCHEDULE 2

DESIGN AND MONITORING FRAMEWORK FOR THE INVESTMENT PROGRAM

Design Summary	Performance Targets and Indicators	Data Sources and Reporting Mechanisms	Assumptions and Risks
Impact Urban population in relatively poor and weak capacity state (Bihar) has improved access to water supply and sanitation facilities. (CPS outcome)	Population ^b with access to 24x7 water supply increased from 0 in 2010 to 533,000 in 2020. Population ^b with access to centralized sewerage system increased from 0 in 2010 to 330,000 in 2020.	Service quality compliance reports ^d from operator and third party validator. Consumer records ^d in ULBs and operators. 2011 and 2021 census data.	Assumptions The state government continues to commit to water supply and sewerage targets in the 11th Five Year Plan. State government completes the ongoing sewerage project on time in Bhagalpur. Risks ULBs cannot pay to DBO contractors for O&M periods after ADB loans.
Outcome People, especially vulnerable household, ^b will have access to better quality and sustainable urban water supply and sewerage services in Bhagalpur, Darbhanga, Gaya and Muzaffarpur.	Pressurized water supply hours increased from 5-11 hours in 2010 to 24 hours by 2017. Centralized sewerage systems' sewage collection from household increased from 0% in 2010 to 70% of households in 2018. O&M cost recovery from the user charges increased from 0% in 2010 to at least 80% by 2019.	Water supply and sewerage operators' or third party validators' service quality compliance reports. ^d Water supply and sewerage operators' customer records. ^d ULB's balance sheets for water supply and sewerage.	Assumptions State government completes ongoing water supply scheme on time before commissioning of new sewerage system in Muzaffarpur. State government's ongoing works have similar construction quality to subprojects. Risks Power supply to WTP, STP and pumping stations becomes intermittent.
Outputs^e 1. Water supply infrastructure in 3 towns improved. ^f 2. Sewerage infrastructure in 1 town improved. ^g 3. O&M of the asset created by the subprojects improved. ^h	NRW reduced from 30%-40% in 2010 to less than 20% by 2018. Continuous water pressure at consumer-end increased from 0 to at least 8 meters in all areas by 2018. 100% of STP effluent quality samples met the government quality standards by 2019. NRW maintained at less than 20% between 2016 and 2020. Energy consumption level of sewer pumping stations and treatment plants unchanged between first year of operations and 2020. All customers'	Water supply operators' or third party validators' service quality compliance reports. ^d (for all indicators) Sewerage operators' or third party validators' service quality compliance reports. ^d Water supply and sewerage operators' or third party validators' service quality compliance reports. ^d (for all indicators)	Assumptions Other public works will not damage newly laid pipes. Risks There is no bidder interested in the DBO contracts. Assumptions Other public works will not damage newly laid pipes. Risks There is no bidder interested in the DBO contracts. Assumptions State government, with support of SPUR, successfully amends BMA for creation of municipal civil service cadre.

Design Summary	Performance Targets and Indicators	Data Sources and Reporting Mechanisms	Assumptions and Risks
4. Urban service delivery management improved.	<p>complaints addressed within 48 hours of claim from first year of operations in each subproject.</p> <p>100% of connections to new water supply systems metered by 2020. (none in 2010)</p> <p>100% of customers billed in first year of operations in each subproject. (none in 2010)</p> <p>Water and sewerage operations' financial statement issued every year in first year of operations in each subproject. (none in 2010)</p>	<p>Service quality compliance reports^d from operator and third party validator.</p> <p>Service quality compliance reports^d from operator and third party validator.</p> <p>Balance sheet for water supply and sewerage operations accounts from ULBs.</p>	<p>Assumptions</p> <p>SPUR accepts applications from ULBs.</p> <p>State government operationalizes accrual based accounting and ring fenced accounts, in ULBs under SPUR.</p> <p>Risks</p> <p>ULBs are hesitant to adopt user charge plans^c for water supply and sewerage accounts.</p>
5. Project management and implementation skills and transparency in improved.	<p>4 PMU and 14 PIU staff (at least 30% of whom are women) trained in ADB policies and procedures. (0 in 2010)</p> <p>Project informationⁱ and audit reports published regular from 2012 (none in 2010)</p>	<p>Training providers' training completion certificate.</p> <p>Project information newsletters from UDHD and BUIDCo.</p>	<p>Assumptions</p> <p>Trained staff stays with ULB.</p>
Activities with Milestones 1.1 Bhagalpur water supply subproject (tranche 1 and 2) 1.1.1 Water supply subproject papered and implemented (Q4 2010-Q1 2016) 1.1.2 Water supply system commissioned (Q4 2015-Q2 2016) 1.1.3 Progress of government's sewerage scheme confirmed (Q4 2015-Q2 2016) 1.1.4 Water supply system operated (Q2 2016-Q3 2020) 1.2 Darbhanga and Gaya water supply subproject (tranche 3) 1.2.1 Water supply subprojects papered and implemented (Q1 2012-Q1 2017) 1.2.2 Water supply systems commissioned (Q1 2017-Q3 2017) 1.2.3 Water supply systems operated (Q4 2017-Q3 2020) 1.3 Muzaffarpur sewerage subproject (tranche 3) 1.3.1 Progress of government's water supply scheme confirmed (Q1 2012-Q2 2012) 1.3.2 Sewerage subproject papered and implemented (Q1 2012-Q2 2019) 1.3.3 Sewerage system commissioned (Q2 2019-Q4 2019) 1.3.4 Sewerage system operated (Q1 2020-Q3 2020) 2.1 O&M of the asset created by the subprojects improved (Tranche 4) 2.1.1 Additional O&M staff fielded by DBO contractors (Q1 2016-Q3 2020) 2.1.2 Asset management system created by DBO contractors (Q1 2016-Q3 2017) 2.1.3 OJT of ULB staff provided by DBO contractors (Q1 2016-Q3 2020) 2.1.4 O&M staff under municipal cadre sent to training program (Q1 2016-Q3 2017) 3.1 Systems for urban service delivery management improved 3.1.1 Application to SPUR submitted by ULB (Q1-Q2 2012) 3.1.2 Accrual-based accounting operationalized by SPUR (Q2 2013-Q3 2014) 3.1.3 Business case proposed (Q3 2015-Q3 2016) 3.1.4 User charge plan ^c prepared by PMC (Q3 2015-Q3 2016) 3.1.5 Proposal for ring-fenced accounts prepared by PMC (Q3 2015-Q3 2016) 3.1.6 All proposal submitted to municipal counsel for adoption (Q1 2016-Q3 2017) 3.1.7 Financial statement for water and sewerage accounts prepared (Q2 2016-) 4.1 Project management and implementation skills, and transparency improved 4.1.1 PMU and PIU established (Q2 2011-Q3 2011) 4.1.2 PMC and DSC selected and mobilized. (Q3 2011-Q3 2020) 4.1.3 Baseline survey undertaken by PMC and contractors (Q4 2012) 4.1.4 Contract management system developed by PMC (Q4 2012-Q1 2013)			Inputs Investment Program ADB \$200 million Government \$86 million Total \$286 million Project 1 ADB \$65 million Government \$28 million Total \$93 million Project 2 (Indicative) ADB \$20 million Government \$9 million Total \$29 million Project 3 (Indicative) ADB \$95 million Government \$41 million Total \$136 million Project 4 (Indicative) ADB \$20 million Government \$9 million Total \$29 million

4.1.5	PMU and PIU staff visited other projects in India (Q4 2012-Q1 2013)	
4.1.6	PPMS ^d developed by PMC (Q4 2012-Q2 2013)	
4.1.7	Project website and newsletter ^d prepared by PMU (Q2 2013)	

ADB = Asian Development Bank, BMA = Bihar Municipal Act of 2007, BUIDCo = Bihar Urban Infrastructure Development Corporation, DBO = design-build-operate, DSC = design and construction supervision consultant, GIS = geographic information system, km = kilometer, lpcd = liter per capita per day, MFF = multitrache financing facility, mld = million liters per day, NRW = nonrevenue water, OJT = on-the-job training, O&M = operations and maintenance, PIU = project implementation unit, PMC = program management consultant, PMU = program management unit, PPMS = project performance monitoring system, Q = quarter, SPUR = Support Program for Urban Reform financed by the Government of United Kingdom, STP = sewage treatment plant, UDHD = Urban Development and Housing Department, WTP = water treatment plant.

^a The same definition for 'Vulnerable' in Para. 13 of the main text applies.

^b This includes all identified vulnerable and/or women-headed households.

^c With special concessionary rates for vulnerable households.

^d The source data will be collected and maintained in a sex-disaggregated, poverty level categorized, and vulnerability identified manner from the baseline data generation.

^e In accordance with ADB. 2007. Guidelines for Preparing a Design and Monitoring Framework. Manila. The outputs in the investment program DMF are the respective projects, and each output statement of the investment program DMF becomes the outcome of the respective project to be funded by a PFR.

^f Projects under the investment program will deliver followings in aggregate: 42,000 piped connection newly installed at households (5.4% of which are women-headed households) by 2017; Three WTP (93 mld, 60 mld, and 165 mld) constructed by 2017; 560 km of pipes laid by 2017. The women-headed households figure is based on the survey done on the four project towns under ADB. 2011. *Project Preparatory Technical Assistance to India for Preparing Bihar Urban Development Project*. Manila.

^g Projects under the investment program will deliver followings in aggregate: 48,000 house connection provided (5.4% of which are women-headed households) by 2017; one STP (43 mld) constructed by 2017; 300 km of sewer network laid by 2017. The women-headed households figure is based on the survey done on the four project towns under ADB. 2011. *Project Preparatory Technical Assistance to India for Preparing Bihar Urban Development Project*. Manila.

^h Projects under the investment program will deliver followings in aggregate: 100% of operational staff follows the O&M manuals during operation period by 2017; GIS-based service asset management system installed and operationalized by 2017; Water supply O&M staff increased from 70 to 330 by 2020 (at least 30% of whom are women); 14 sewerage O&M staff's qualifications upgraded by 2020; Sewerage O&M staff increased from 0 to 90 by 2020 (at least 30% of whom are women); 16 water supply O&M staff's qualifications upgraded by 2020.

ⁱ Including the progress of implementation of gender, safeguards and other social plans.

SCHEDULE 3

IMPLEMENTATION FRAMEWORK

Unless modified and amended in loan or project agreements under the Facility, the Investment Program will be implemented as follows.

Project implementation organizations	Key Management Roles and Responsibilities
UDHD, the state government of Bihar	Executing agency
Steering Committee, comprising: (i) Development Commissioner; (ii) Principal Secretary, Finance; (iii) Principal Secretary, Planning and Development; and (iv) Principal Secretary, Urban Development and Housing.	(i) Provide strategic guidance, and oversee the implementation of the investment program. (ii) Appoint auditors and fix their remuneration, and ensure auditing of the project accounts. (iii) Review and provide policy direction on: (a) Implementation of the urban and institutional reform agenda; (b) Compliance with loan covenants under the ADB loans; (c) Compliance with environment and social safeguards; and (d) Critical implementation issues and in inter-departmental coordination. (iv) Approve: (a) Subproject concept, scope and cost; (b) PFR scope and cost; (c) Balance sheets, audit report and other annual reports of the investment program, if necessary; (d) Evaluation reports prepared by tender evaluation and consultant selection committees; and (e) Contract award and variation proposals. (v) Consider and take decision on: (a) Annual budget; and (b) Annual action plan. (vi) Establish the PMU; PIU with its field offices; and town committees of respective project towns. (vii) Delegate powers, other than those of making rules, to the project director or other authorities. (viii) Ensure timely release of funds to the investment program.
PMU, comprising: (i) Program director; (ii) Project specialist (water supply and sewerage engineer); (iii) Financial control officer; (iv) Environmental and social management coordinator; and (v) Institutional reform and capacity building officer.	(i) Liaise and correspond with ADB on all issues related to investment program. (ii) Implement institutional reform component under the investment program. (iii) Endorse and submit subproject scope and cost to the Steering Committee. (iv) Prepare PFR reports after compilation of constituent subprojects and other components. (v) Coordinate with: (a) National and state agencies to resolve any inter-departmental issues; (b) SPUR for implementation of non-physical investment activities; and (c) PIU and City ULBs for implementation of physical investment activities. (vi) Establish a second-generation imprest account with a commercial bank.

	<ul style="list-style-type: none"> (vii) Approve: <ul style="list-style-type: none"> (d) Detailed engineering design; (e) Training and capacity building program. (viii) Monitor physical and no-physical investment activities under the investment program. (ix) Monitor implementation of safeguards plans, guide PIU- as and when necessary, and prepare reports. (x) Manage project management consultants as an employer. (xi) Prepare and submit: <ul style="list-style-type: none"> (a) Reports to the Steering Committees for consideration and approval; (b) Internal audit report; (c) Reports mandated under the loan agreements and the FFA to ADB; (d) Disbursement application to ADB; and (e) Safeguards plans and corrective action plans consistent with safeguard frameworks. (xii) Submit reports of external auditor to the Steering Committee. (xiii) Disseminate information related to the investment program to the public and media. (xiv) Establish and maintain a project performance monitoring system at the investment program level by consolidating data from each subproject.
BUIDCo	Implementing agency
Project Implementation Unit, comprising: <ul style="list-style-type: none"> (i) Project manager; (ii) Water supply engineer; (iii) Sewerage engineer; (iv) Electro-mechanical engineer; (v) Procurement officer; (vi) Finance officer; (vii) Resettlement officer; (viii) Environment officer; and (ix) Public relation officer. 	<ul style="list-style-type: none"> (i) Establish field office in each subproject town and recruit staff. (ii) Identify, prepare and submit subproject appraisal reports to the committees through PMU and obtain their consent. (iii) Prepare and submit detailed engineering design to PMU. (iv) Procure works, goods and consultancy services for implementation of the project. (v) Manage the contractors and design and construction supervision consultants as an employer. (vi) Plan, implement and monitor: <ul style="list-style-type: none"> (a) Public relations activities; (b) Gender mainstreaming initiatives; (c) Community participation activities; and (d) Safeguard compliance activities. (vii) Prepare and submit periodic progress reports on each subproject and consolidate them for the PMU. (viii) Provide necessary data on each subproject for PMU to consolidate, maintain and update the project performance monitoring system at an investment program level. (ix) Maintain project accounts and submit consolidated monthly reports to PMU. (x) Obtain statutory clearances. (xi) Coordinate for obtaining right of way clearances with related state and national agencies. (xii) Make payments.
PIU field offices of each project towns, comprising: <ul style="list-style-type: none"> (i) Executive engineer; (ii) Assistant civil engineers; (iii) Assistant electro mechanical engineer; (iv) Accountant; and (v) Safeguard officer. 	<ul style="list-style-type: none"> (i) Supervise the contractors as engineers. (ii) Facilitate collection of data for detailed engineering design. (iii) Submit the bills to PIU. (iv) Implement: <ul style="list-style-type: none"> (a) Resettlement plans;

	(b) EMP; and (c) IPP. (v) Obtain right of way clearances. (vi) Assist the town committee in their review and preparing necessary documents. (vii) Prepare progress report on each contract. (viii) Maintain subproject and contract-level accounting.
Town Committee of each project town, comprising: (i) Mayor of town, chairperson; (ii) District magistrate; (iii) Executive engineer; (iv) Municipal commissioner; (v) Line agencies' representatives; and (vi) NGO and civil societies.	(i) Endorse subproject scope of the respective towns. (ii) Review periodically the subproject progress and facilitate in smooth the implementation of the subproject. (iii) Discuss and finalize the proposal for legal, operational and financial changes with assistance of PMU and UDHD.

ADB = Asian Development Bank, BUIDCo = Bihar Urban Development Corporation, EMP = environment management plan, FFA = framework financing agreement, IPP = indigenous people plan, NGO = nongovernment organization, PIU = project implementation unit, PMU = project management unit, SPUR = Support Program for Urban Reforms, ULB = urban local body.

SCHEDULE 4

SELECTION CRITERIA AND APPROVAL PROCESS FOR SUBPROJECTS

Selection Criteria

1. Water supply, and sewerage subprojects in Bhagalpur, Darbhanga, Gaya and Muzzaffapur towns are the candidates for financing under the Facility. All candidate subprojects fall in three categories 'firm' and 'standby' as shown in Table 1 below.

Table 1: Subproject Categories by Subsector and by Town

Towns	Water supply subsector	Sewerage subsector
Bhagalpur	Firm	Standby
Darbhanga	Firm	Standby
Gaya	Firm	Standby
Muzzaffapur	Standby	Firm

2. The executing agency will determine eligibility of a subproject based on the following criteria:

- (i) The Facility will finance all 'firm' subprojects under the Investment Program. The 'firm' subprojects are the basis for the investment program cost estimates and the performance targets of the design and monitoring framework.
- (ii) If one or more of the 'firm' subprojects do not require financing under the Facility, the state government of Bihar will select alternative(s) from the group of 'standby' subprojects. A 'standby' sewerage subproject in a town will become eligible for financing under the Facility only after a contract for water supply improvement in the same town is awarded, since the design of the new sewerage system is based on the increased water consumption under the improved water supply service at the government standard.
- (iii) The Facility may finance a subproject on a stand-alone basis, and/or in parallel to other financing sources so far as: (a) procurement, selection of consultants and disbursement will be undertaken in accordance with Asian Development Bank's (ADB's) respective guidelines; and (b) the ADB's safeguard policies are fully met.

3. Once the executing agency confirms the eligibility, the implementing agency will assess subproject feasibility in a form of a subproject appraisal report, and will prove that following subproject selection criteria are fully met.

Technical criteria:

- (i) The subproject will achieve the service level standards of the Government of India and the state government of Bihar;
- (ii) The subproject will first rehabilitate the existing usable assets to achieve optimum utilization, and then will create new assets;
- (iii) The subproject incorporates the least cost option for the location, materials, technologies, designs and operations and maintenance (O&M), using an appropriate discounting rate;
- (iv) The subproject will have user-friendly designs for both men and women;
- (v) The assets have seismic resistant structure in accordance with the Bureau of Indian Standards;
- (vi) The subproject follows the standards and guidelines of the government and the state government of Bihar; and

- (vii) The asset owner has already identified all the lands, visually confirmed the locations, and verified the ownership in writing. Further, the asset owner is ready to have the land transferred.

Financial criteria:

- (i) The subproject will support design and implementation of user charges and subsidy, which have special concession to vulnerable households;
- (ii) The subproject will support creation of service specific accounts following the accrual-based double entry accounting system;
- (iii) The subproject will support preparation of service specific financial statements;
- (iv) A financial projection of the service operations is prepared for 25 years;
- (v) There will be user charges which will fully recover O&M expenditure of both existing and new assets and accumulate internal reserves;
- (vi) In case the asset owner cannot recover the O&M expenditure from the user charges, the state government or the asset owner will finance the shortfall; and
- (vii) The implementing agency and the asset owner has adequate financial management capacity to manage the subproject, and operate the newly created assets.

Economic criteria:

- (i) The result of the willingness-to-pay survey shows what number of people is willing to pay what amount of user charges;
- (ii) The result of the affordability test shows that the sum of user charges for water supply, sewerage and solid waste management is below the affordability limit;
- (iii) The rationale of the subproject is the failure of either: (a) market to adequately provide what society wants, or (b) public institutions to deliver public goods or services; and
- (iv) The subproject demonstrates an economic internal rate of returns at a value higher than the economic opportunity cost of capital, with sensitivity analysis.

Social and environmental criteria:

- (i) The subproject follows social and environmental selection guidelines provided in the Environmental Assessment and Review Framework;
- (ii) The subproject has required safeguard planning documents (environment assessment and involuntary resettlement) and indigenous peoples plan, following the Environmental Assessment and Review Framework, the Resettlement Framework and the Indigenous Peoples Planning Framework;
- (iii) The subproject's outcome, outputs and activities are consistent with the Gender Action Plan; and
- (iv) There is a record of consultation and participation of the stakeholder prior and during feasibility study in line with the Consultation and Participation Plan.

Cost estimate, procurement and use of consultants:

- (i) Cost estimate reflects the current market rate, and shows the unit costs, inputs and the annual distribution of the inputs throughout the implementation period;
- (ii) There is no provision for a centage charge levied by the implementing agency or other specialized agencies;
- (iii) The subproject has a procurement plan;
- (iv) The subproject will procure works, goods and services in accordance with the ADB's Procurement Guidelines (2010 as updated from time to time); and

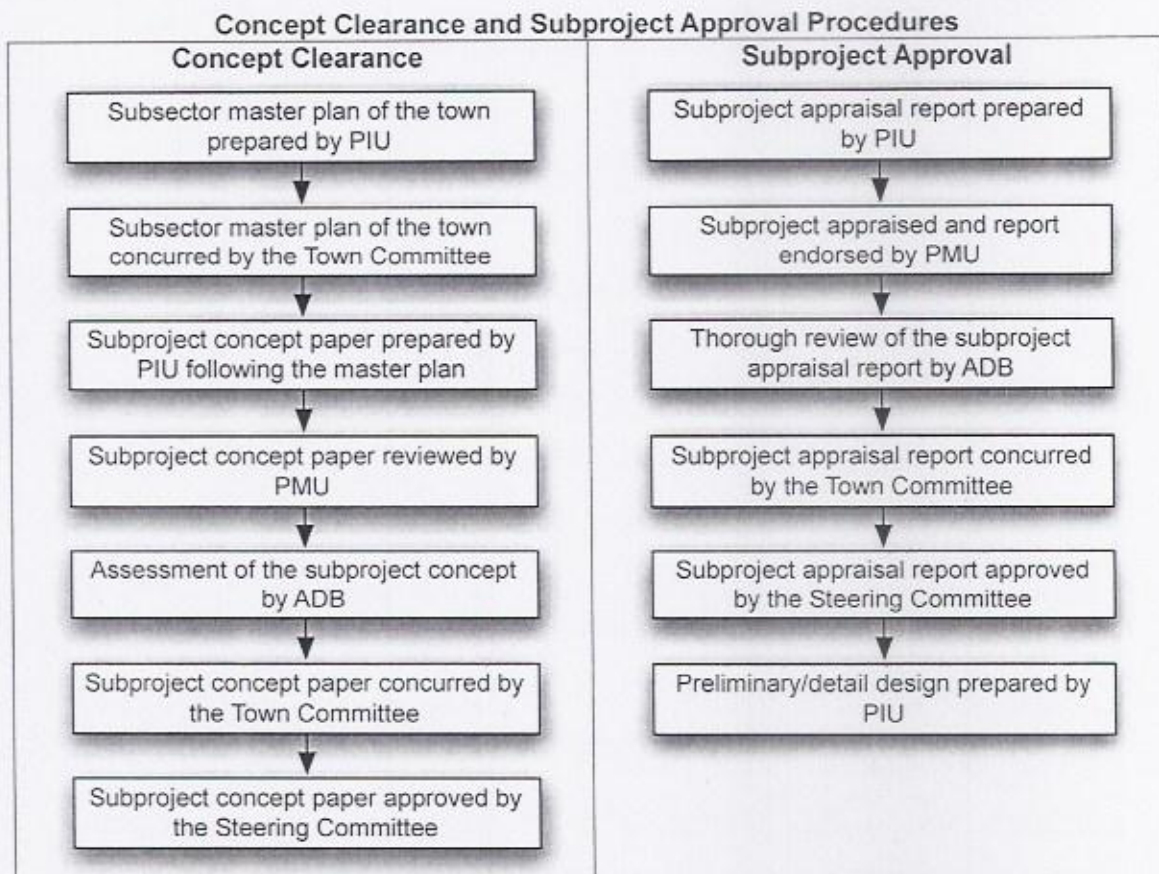
- (v) The subproject will engage consultants in accordance with the ADB's Use of Consultants (2010 as updated from time to time).

Others:

- (i) For a water supply subproject, there is sufficient ground water in the aquifer supported by ground water studies or perennial surface water source nearby with minimum of 30 years of sustainability; and
- (ii) For a sewerage subproject, there is minimum of 135 liters per capita per day water supply in the service area;

Approval Procedures

4. The approval procedure is two folds: concept clearance and subproject appraisal.



ADB = Asian Development Bank, PIU = project implementation unit, PMU = program management unit.

5. **Concept Clearance.** Once the subproject is selected, the project implementation unit (PIU), with assistance of the design and supervision consultants (DSC), will prepare a subsector master plan of the town, and will seek concurrence from the Town Committee. The PIU will then prepare a subproject concept paper (SCP) consistent with the subsector master plan.

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6. The SCP will be a brief paper, maximum of four pages, similar to the subsector specific service plan section of the investment program prepared under TA7106-IND Preparing Bihar Urban Development Project. It will highlight the baseline and 2020 targets for the service level, demand-supply gaps, reasons for demand-supply gaps, a broad cost estimate, initial assessment on safeguard requirements, and an indicative per capita cost of operations. The PIU will have extensive consultation with the stakeholders and the Town Committee members, and will add the summary minutes of each consultation in the SCP.

7. The PIU will submit the SCP to the program management unit (PMU) for concurrence. Once concurred, ADB will review the SCP, assess the risk and complexity of the proposed subproject based on ADB's operational and safeguard policies, and will inform the PMU assessment results. Upon receipt of ADB's positive feedback, the PMU will submit the SCP to the Town Committee for concurrence and then to the Steering Committee for concept clearance as in-principle approval of the subproject.

8. **Subproject Approval Procedure.** As soon as the Steering Committee clears the SCP, the PIU will engage the DSC to undertake surveys to obtain the primary data. Based on the primary data, the PIU, with assistance of the DSC, will undertake a subproject feasibility study and will present it as a subproject appraisal report (SAR).

9. SAR will be based on quantitative data, and will include subproject rationale, subproject description, assessment of alternative design options, selection of least-cost design from the all options, project cost estimates, implementation arrangements, an operation and maintenance plan with cost estimates, a procurement plan, financial analysis, economic analysis, environmental assessment, involuntary resettlement assessment, plans for indigenous people, gender action plan, consultation and participation plan and social and poverty reduction strategy.

10. The PMU will appraise the subproject using the SAR, in the light of ADB's operational and safeguards policies, together with ADB's relevant guidelines and handbooks. If the PMU concludes that the subproject fully meets ADB's operational and safeguards policies, it will endorse the SAR and submit it to ADB for thorough review. ADB may request for site visits and PMU's clarifications or may ask for reconsideration of the subproject design and analysis.

10. The PIU and PMU will improve the SAR based on the ADB's recommendations, and will submit to the Town Committee for concurrence. Once concurred, the PMU will seek approval from the Steering Committee. When the required total loan amount becomes more than the minimum tranche amount, the PMU will draft a periodic financing request and will request for ADB's due diligence on the proposed subprojects. At this stage, the subproject(s) must fulfill the requirements of Department of Economic Affairs' Project Readiness Checklist up to the loan negotiations stage.

SCHEDULE 5

SOCIAL DIMENSIONS AND SAFEGUARD REQUIREMENTS

1. India will cause the State to ensure that all the requirements prescribed in this Schedule, and the following social and safeguard frameworks and plans that have been prepared with respect to the Facility and the first tranche and of which Asian Development Bank (ADB) has been provided full copies, and which are deemed incorporated herein by reference, are complied with during the processing and implementation of the subprojects under the Facility.

- (i) Environmental assessment and review framework, dated 30 June 2011,
- (ii) Resettlement framework dated 30 June 2011,
- (iii) Indigenous peoples planning framework dated 30 June 2011,
- (iv) Environmental management plan, resettlement plan, and indigenous peoples plan dated 30 June 2011 for the first tranche,
- (v) Environmental and social management system, and/or
- (vi) Gender action plan dated 30 June 2011.

2. The frameworks cover the Facility-specific information and requirements in accordance with ADB's safeguard policies: (i) the general anticipated impacts of the components or projects likely to be financed under the multitranchise financing facility on the environment, involuntary resettlement, and indigenous peoples; (ii) the safeguard criteria that are to be used in selecting components, projects; (iii) the requirements and procedure that will be followed for screening and categorization, impact assessments, development of management plans, public consultation and information disclosure (including the 120-day disclosure rule, if required), and monitoring and reporting; and (iv) the institutional arrangements (including budget and capacity requirements) and the client's and ADB's responsibilities and authorities for the preparation, review and clearance of safeguard documents.

3. Prior to the preparation of each periodic financing request, the applicability and relevance of each safeguard framework for environmental assessment, involuntary resettlement, and indigenous people will be reviewed by the state government of Bihar and updated to ensure relevance and consistency with applicable country legal frameworks and ADB's safeguard policies, as amended from time to time.

4. In all cases, for each new periodic financing request preparation, the client will review ongoing projects to check on the status of compliance with the social and safeguard plans and frameworks, and submit the review reports to ADB, together with other required safeguard documents relevant to the subprojects included in the tranche being processes. In any case, if major noncompliance is discovered in the course of the review of ongoing projects, a corrective action plan will be prepared and submitted to ADB.

SCHEDULE 6

UNDERTAKINGS

1. The implementation of the investment program shall conform to Asian Development Bank's (ADB's) mandatory policies on anticorruption, procurement, consulting services, and disbursement.

2. India, the state, Urban Development and Housing Department (UDHD), and Bihar Urban Infrastructure Development Corporation (BUIDCo) will ensure that the anticorruption provisions acceptable to ADB and India are included in all bidding documents and contracts, including provisions specifying the right of ADB to audit and examine the records and accounts of UDHD and BUIDCo, and all contractors, suppliers, consultants, and other service providers as they relate to the Projects under the Facility. India, the state, UDHD, and BUIDCo will allow and assist ADB's representative to carry out random spot-checks on the work in progress and utilization of funds for the project.

3. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project. All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all project contractors, suppliers, consultants and other service providers. Individuals and/or entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activities and may not be awarded any contracts under the project. To support these efforts, relevant provisions are included in the loan and project agreements and the bidding documents for the investment program.

4. In addition to the standard assurances, the Government and the state government of Bihar have given the following assurances, which will be incorporated in the individual loan agreements as applicable, subject to any amendments to be mutually agreed by the government and ADB:

<p>Program management and project implementation structure (Standard)</p>	<p>The State shall establish the Steering Committee and the Town Level Committee, with a first meeting held in these, no later than 31 March 2012.</p> <p>The State shall establish a program management unit, led by a full time program director, that will be responsible for overall Facility, monitoring and supervision, and will report directly to the Secretary, Urban Development and Housing no later than 31 March 2012.</p> <p>The subprojects shall be implemented by the Bihar Urban Infrastructure Development Corporation on behalf of the urban local bodies of Bhagalpur, Darbhanga, Gaya and Muzaffarpur.</p> <p>The State shall cause the Bihar Urban Infrastructure Development Corporation to establish (i) the project implementation unit, led by a full time project manager that will be responsible for subproject monitoring and supervision, and will report to the program director, and (ii) city-level project implementation unit at each city no later than 31 March 2012.</p> <p>The program management unit and the project implementation unit will employ sufficient staff with adequate, relevant expertise and gender balance, and will be equipped with necessary office space, facilities, equipment, support staff and management information systems for the entire duration of the Facility. To the extent reasonably possible, the same persons will continue to be assigned to key positions in the PMU and PIU for the entire</p>
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	<p>duration of the Facility.</p> <p>ADB will be promptly notified of any proposal to amend, cancel, or repeal any of the provisions of the constitutional documents of any implementing agency and will give ADB an adequate opportunity to comment on such proposals before taking any action.</p>
State government financing (Standard)	Sufficient counterpart funds (including contingency funds to mitigate unforeseen cost increases) will be made available from the Government and/or state budgets each fiscal year and will be allocated and disbursed in a manner that ensures timely and effective implementation of the subprojects.
Involuntary resettlement (Standard)	<p>All land and rights-of-way required for any of the subprojects will be made available in a timely manner; compensation at replacement value will be provided prior to the award of relevant civil works contracts; and involuntary resettlement, including relocation, will be carried out in accordance with the Resettlement Framework (RF) and resettlement plans agreed upon between the Government, the state and ADB; the relevant laws and regulations of the Government and the state; and ADB's Safeguard Policy Statement (2009).</p> <p>A resettlement plan will be prepared for every subproject involving land acquisition or resettlement, including relocation, and will be submitted to ADB for review and approval prior to the approval of the tranche concerned. Revised resettlement plans based on detailed designs for all subprojects will also be provided for ADB approval prior to the award of related civil works contracts.</p>
Indigenous people (Standard)	Subprojects will be designed to have minimal impact on indigenous peoples. If an impact is anticipated, the relevant subproject will be carried out in accordance with the Indigenous Peoples Planning Framework (IPPF) and indigenous peoples plan agreed upon between the Government, the state and ADB; the relevant laws and regulations of the Government and the state; and ADB's Safeguard Policy Statement (2009).
Environment (Standard)	The design, construction, operation, and implementation of all subprojects will be carried out in accordance with the Environmental Assessment and Review Framework (EARF) and the relevant environmental impact assessment reports (e.g., Initial Environmental Examinations [IEEs] or Environmental Impact Assessments [EIAs]) agreed upon between the Government, the state and ADB; and must comply with the environmental laws and regulations of the Government and the states, and ADB's Safeguard Policy Statement (2009). Any adverse environmental impacts arising from the construction, operation, and implementation of subprojects will be minimized by implementing the environmental mitigation and management measures and other recommendations specified in the relevant environmental management plans within IEEs/EIAs reports. Environmental requirements will be incorporated in the bidding documents and subsequent civil works contracts for the subprojects.
Gender, consultation and participation.	The relevant subprojects will be carried out in accordance with the Gender Action Plan for each Tranche and the Consultation and Participation Plan for the Facility agreed upon between the Government, the states and ADB.
Procurement (Standard)	<p>Subprojects and business opportunities associated with the subprojects will be announced on the websites of relevant state agencies, together with pertinent information in relation to goods and services procured for subprojects.</p> <p>The bidding documents for the civil works contracts for subprojects will include specific provisions to ensure that the contractors (a) comply with core labor standards and applicable labor laws of the Government and the state (including applicable occupational safety norms; the prohibition on</p>

	<p>employment of child labor, forced or compulsory labor; and the requirement to provide equal payment for equal work, regardless of gender or caste); (b) disseminate, or engage appropriate service providers to disseminate information on the risks of sexually transmittable infections, including HIV/AIDS, to the employees of contractors engaged under the subprojects and to members of the local communities surrounding the subproject facilities, particularly to females; (c) follow and implement all statutory provisions on labor; and (d) to the extent possible, maximize employment of local poor and disadvantaged persons for construction purposes, provided that the requirements for efficiency are adequately met.</p> <p>The State will cause BUIDCo to announce each project and business opportunities associated with each project on the website of the PMU. In addition, the website will at least disclose the following information in relation to goods and services procured for each project: (i) the list of participating bidders, (ii) the name of winning bidder, (iii) the amount of the contracts awarded, and (iv) the goods and services procured.</p>
Subproject implementation	<p>All consents and approvals required for implementation of subprojects under the Facility will be obtained in accordance with applicable laws and regulations of the Government or the state; and any consents or approvals from any other agencies or third parties that have any claim or authority over the site of a subproject.</p> <p>The State shall ensure that the ongoing sewerage project in Bhagalpur will be made operational within one year from commissioning of the water supply system in Bhagalpur financed under the Facility.</p> <p>The State shall ensure that ongoing water supply augmentation projects in Muzaffarpur will award all contracts before ADB's due diligence on the proposed sewerage system in Muzaffarpur for the Facility financing.</p> <p>The State shall ensure that the PMU will make the information on project scope, implementation progress, benefit and financial statements under the Facility available to the public.</p> <p>Within 3 months of the effective date of each loan, distinct from the grievance redress mechanism under the safeguards requirements, the State shall prepare a grievance redress mechanism for each PIU, acceptable to ADB, to receive, resolve or act, independently and expeditiously, upon complaints, grievances or reports from stakeholders on misuse of funds and other implementation irregularities relating to each project or specific subprojects. The State shall inform stakeholders of their right to submit complaints or grievances relating to each project.</p>
Coordination with SPUR	<p>The State shall cause the ULBs of Bhagalpur, Darbhanga, Gaya and Muzaffarpur to prepare and submit the application for assistance under SPUR within 2012.</p> <p>The State shall ensure that, for development and installation of geographic information system (GIS)-based water and sewerage management system, georeferenced cadastral maps of Bhagalpur, Darbhanga, Gaya and Muzaffarpur with thematic layers on a GIS domain, which will be delivered under SPUR assistance, will be made available to the consultants and contractors engaged under the Facility.</p> <p>The State shall ensure that progress in adoption of the accrual based double entry accounting system software by the urban local bodies of Bhagalpur, Darbhanga, Gaya and Muzaffarpur, which will be delivered under SPUR assistance, will be made available to the consultants and contractors engaged under the Facility.</p>
Accounting, ring-fencing, cost	The State shall ensure that the candidates for the skills upgrading program

recovery and user charges	<p>under the Facility will be selected from the officials in the municipal cadre in Bhagalpur, Darbhanga, Gaya and Muzaffarpur to ensure that the trained human resources will be retained in ULBs.</p> <p>The State shall cause, with assistance of SPUR and/or the consultants under the Facility, the urban local bodies of Bhagalpur, Darbhanga, Gaya and Muzaffarpur that each of the activities listed in the Urban Service Financial Governance and Delivery Improvement Action Plan as set out in Schedule 1 to the FFA, will be implemented in accordance with the time frame set against the relevant measure.</p> <p>The State shall ensure that in case, for water supply and sewerage operations of the urban local bodies in Bhagalpur, Darbhanga, Gaya and Muzaffarpur, (i) preparation of georeferenced cadastral maps (ii) adoption of the accrual based double entry accounting system, (iii) setting up of ring-fenced accounts, (iv) preparation of policies on cost recovery, user charges including provisions for penalizing non-payers and subsidies, (v) preparation of a rule for sewer mandatory connections in the service areas do not deemed to be delivered under SPUR by March 2014, such activities will be implemented under the Facility no later than December 2014.</p>
Monitoring	<p>Within six months of the Effective Date, the State shall through the program management unit, establish the project performance and monitoring system to track implementation activities under the Facility, with corresponding target dates, expected outcomes, and assigned responsibilities under a monitoring mechanism formulated, discussed and agreed between ADB and the State.</p> <p>The Facility shall be under regular review by: (i) implementing agency through the project implementation unit (monthly), (ii) the executing agency through the program management unit (quarterly); and (iii) Steering Committee (semiannually).</p> <p>The state will submit semi-annual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission.</p> <p>The state will submit to ADB, within 3 months of physical completion of the last Project under the Facility, a completion report that will cover the details of the investment program implementation, costs, monitoring and evaluation activities, and other information requested by ADB.</p>