

# Environmental and Social Assessment of the Policy Matrix

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Project Number: 42267  
September 2014

India: Rajasthan Urban Sector Development Program

## I. INTRODUCTION

### A. Background

1. **Urban centers as engines of growth.** Urban centers have been driving economic growth in India, led by services and manufacturing, placing cities at the forefront of the country's economic transformation.<sup>1</sup> According to recent estimates, the urban sector contributes about 63% of India's gross domestic product (2009–2010); this share is projected to increase to 75% by 2021.<sup>2</sup> Similarly, while India's urban population currently constitutes about 31% of the total population, it is expected to grow to 43% by 2031.<sup>3</sup> Increasing urbanization has aggravated the already deficient urban infrastructure and poor services.<sup>4</sup> The country partnership strategy, 2013–2017 of the Asian Development Bank (ADB) for India identifies the urban infrastructure deficit as one of the most important binding constraints to inclusive growth.<sup>5</sup> The SDP fits well with the priorities identified in the strategy, and will address the country's urbanization challenge, including plans for urban renewal and development of smart cities. The proposed investment is included in ADB's country operations business plan, 2013–2015 for India.<sup>6</sup>

2. **Need for investments and reforms.** Rajasthan, with a population of 68.6 million and an area of 342,239 square kilometers, is the largest state in the country. About 25% of the population is urban, this percentage is increasing rapidly at 2.9% per annum. Since 2000, the state government has successfully implemented two multisector urban investment projects, which benefitted more than 5 million residents of six major cities under the first project and more than 2 million residents of 15 secondary cities under the second project.<sup>7</sup> Important lessons from the projects have been incorporated in the SDP design, including (i) consultations on project design, last-mile connectivity, cost recovery, user charges, and timely induction and capacity building of counterpart staff are crucial for sustainability; (ii) contracts should be grouped into fewer packages with long-term operation and maintenance (O&M) provisions; and (iii) advance actions for procurement should be undertaken to enhance project readiness. Another important lesson, reiterated in the review of the country partnership strategy, 2009–2012, is that investments have to be coupled with sustainable and vibrant institutions and effective governance systems to sustain and maximize their impacts.<sup>8</sup> The SDP will support the state

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<sup>1</sup> Government of India, High Powered Expert Committee. 2011. *Report on Indian Urban Infrastructure and Services*. Delhi.

<sup>2</sup> Government of India, Planning Commission. 2007. *Report of the Steering Committee on Urbanization, Eleventh Five Year Plan (2007–2012)*. New Delhi.

<sup>3</sup> Government of India, Planning Commission. 2012. *Report of the Steering Committee on Urbanization, Twelfth Five Year Plan (2012–2017)*. New Delhi.

<sup>4</sup> Only 64% of India's urban population has individual water connections; water supply is mostly intermittent ranging from 1 to 6 hours a day; nonrevenue water accounts for about 50% of production; most cities do not have functional water meters; only 5% of cities have any kind of sewerage system; 18% of urban households defecate in the open; and only 21% of wastewater generated is treated (footnote 5).

<sup>5</sup> ADB. 2013. *Country Partnership Strategy: India, 2013–2017*. Manila.

<sup>6</sup> ADB. 2013. *Country Operations Business Plan: India, 2013–2015*. Manila.

<sup>7</sup> ADB. 1998. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to India for the Rajasthan Urban Infrastructure Development Project*. Manila; ADB. 2007. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranches Financing Facility to India for the Rajasthan Urban Sector Development Investment Program*. Manila. The two projects focused on the urban sector with several subsectors, such as water supply, wastewater, urban transport, drainage, solid waste management, fire fighting, and heritage. The six cities proposed under the SDP were not covered in these two earlier projects.

<sup>8</sup> Water supply and wastewater operations are handled by the Public Health Engineering Department throughout the state, with overlap in responsibilities with municipalities, development authorities, and housing boards in some areas. Recently, the Government of Rajasthan delegated operations to municipalities; however, the decision is not yet operationalized.

government's reform agenda, and if implemented successfully, may play a demonstrative role for urban sector operations in India.

3. **Need for sector development program.** The SDP modality will support both the infrastructure needs and the state government's reform program, which focuses on strengthening institutions and adjusting the policy, institutional, legal, financial, and regulatory framework. The policy-based loan will provide financial support to the state government to implement reforms that will unlock the potential of various stakeholders, including municipal bodies, individual households, and private sector investors. The amount of the policy-based loan is based on the development financing needs of the state's urban sector, and the financial support required for reforms.<sup>9</sup> The project loan will support catalytic investments that enhance productivity and leverage finances from various other sources in the project cities. The project will also introduce innovations in water supply and wastewater management, such as continuous water supply, and long-term O&M embedded construction contracts for nonrevenue water (NRW) reduction and sustainability of operations.<sup>10</sup>

4. **Rajasthan Urban Sector Development program.** The sector development program (SDP) will complement past and ongoing efforts of the Government of Rajasthan to improve water supply and wastewater services to the residents of the state of Rajasthan.<sup>11</sup> The SDP comprises (i) a program, financed by a policy-based loan, to support policy reforms, including institutional development and governance improvement in the urban sector in the state; and (ii) a project, financed by a project loan, to invest in the water distribution network in five project cities and sewerage systems in the six project cities.<sup>12</sup>

5. The impact of the SDP will be sustainable urban development in Rajasthan. The outcome will be improved urban service delivery in Rajasthan.

6. The SDP will have five outputs: Outputs 1 and 2 will be supported by the policy-based loan, while Outputs 3, 4, and 5 will be supported by the project loan. The project will invest in water supply in five project cities and wastewater sectors in six project cities, each having a population of more than 100,000. The six project cities were selected based on consideration of the cities' lack of basic services at present and their willingness to undertake reforms and institutional restructuring. The outputs will be:

- (i) **Output 1: Urban institutions strengthened.** Activities include (i) creation of a sustainable corporatized state institution for urban development; (ii) corporatization of water supply and wastewater operations in the capital city of Jaipur; (iii) implementation of long-term performance-based management contracts in at least six cities; (iv) delegation of water supply and sewerage

<sup>9</sup> Details are included in the Sector Assessment (Summary): Water and Other Urban Infrastructure and Services and Economic Analysis (accessible from the list of linked documents in Appendix 2).

<sup>10</sup> The current status of water supply in the six project cities is: average duration varies from 1 hour every 3 days to 2 hours every day; coverage varies from 80% to 100%; production varies from 69 to 136 liters per capita per day; and household service connections coverage varies from 57% to 96%. NRW levels range from 36% to 76% due to poor quality network, unauthorized connections, ineffective metering, and poor revenue realization. There is no piped sewerage system, and septic tanks coverage varies from 65% to 99%. Tariffs are very low (for example, rate up to 15,000 liters consumption for a domestic consumer is Rs1.56 per 1,000 liters) and cover around 20% of O&M costs of water supply. Sewerage charge is collected as a percentage of water charge ranging from 20% to 33%.

<sup>11</sup> The Asian Development Bank (ADB) provided project preparatory technical assistance: ADB. 2011. *Technical Assistance to India for Preparing the Rajasthan Urban Development Program*. Manila (TA 8043-IND).

<sup>12</sup> The six project cities are Pali, Jhunjhunu, Sri Ganganagar, Hanumangarh, Tonk, and Bhilwara.

- functions, along with adequate resources and tariff-setting authority, to municipal bodies; and (v) rationalization of urban property tax for municipal bodies.
- (ii) **Output 2: Urban governance improved.** Activities include (i) formulation and approval of a long-term urban development policy; (ii) development of a human resource development plan for urban governance, including establishment of a state training institute; (iii) implementation of water sector reforms such as reduction of NRW, 24-hour water supply, individual household connections to residents in slum areas, benchmarking of urban services, and development of geographic information systems (GIS) and customer databases, and water and wastewater quality monitoring systems; (iv) support for total sanitation and solid waste management; (v) support for linkages between sanitation and health; and (vi) rationalization of water and sewerage tariffs for O&M cost recovery, and improvement of collection efficiency.
  - (iii) **Output 3: Water supply system rehabilitated and expanded in five project cities.** Activities include (i) distribution network improvement, including digital network systems, on a district metering area basis for NRW reduction; (ii) provision of individual property connections to residents, especially the poor and households headed by women; (iii) provision of 24-hour water supply; and (iv) improvement of water supply efficiency by reducing NRW and energy losses of electromechanical machinery.
  - (iv) **Output 4: Wastewater system rehabilitated and expanded in six project cities.** Activities include (i) rehabilitation and expansion of the sewerage network, including separation of sanitary sewers from drains, and property connections; (ii) modernization and expansion of wastewater treatment plants; (iii) use of wastewater as a resource, including recycling of wastewater, and energy generation through sludge digestion and gasification; (iv) septage management and decentralized wastewater treatment systems in suitable areas; and (v) total sanitation and solid waste management.
  - (v) **Output 5: Capacity building and efficient program management implemented.** Activities include (i) capacity building of urban institutions and municipal bodies, (ii) project management, (iii) implementation of a gender equality and social inclusion action plan, and (iv) implementation of a community awareness and participation plan.

7. **Implementation Arrangements.** The implementation arrangements are described in detail in the project administration manual.<sup>13</sup> The State of Rajasthan acting through its Local Self Government Department (LSGD) will be the executing agency and the Rajasthan Urban Infrastructure Development Project (RUIDP) will be the implementing agency. LSGD will be responsible for overall strategic planning, guidance, and management of the SDP, and for ensuring compliance with the tranche release conditions and loan covenants. A policy support unit will be established in LSGD to support the government with implementation of the tranche release policy actions under the policy-based loan. RUIDP will be responsible for planning, implementation, monitoring and supervision, and coordination of all activities under the SDP. RUIDP will recruit consulting firms—project management, design, and supervision consultant (which will also work as the engineer for administration of civil works contracts), and community awareness and participation consultant—using the quality- and cost-based selection method with a quality–cost ratio of 90:10 in accordance with ADB’s Guidelines on the Use of Consultants (2013, as amended from time to time). Procurement of civil works and goods will be carried out in accordance with ADB’s Procurement Guidelines (2013, as amended from time to

<sup>13</sup> Project Administration Manual (accessible from the list of linked documents in Appendix 2).

time). Advance contracting and retroactive financing under the SDP have been approved by the management.

## **B. Purpose of this Report**

8. ADB requires that the environmental and social impacts of policy actions associated with policy-based loans be evaluated. The environmental and social assessments focus on the policy actions to be supported by the policy-based loan. A matrix of potential environmental and social impacts of each policy action, together with appropriate mitigation measures, is prepared and presented below. It includes a qualitative indication of the likely order of magnitude of each impact and brief reasons for the judgment.

9. The matrix focuses on wider concerns of policy reforms, including:

- (i) Social and economic effects (as well as impacts on the natural environment);
- (ii) Direct and indirect effects (as impacts of policies are often indirect); and
- (iii) Cumulative effects (effects of several projects, as well as past, present and future actions).

## **II. RUSDP: POLICY REFORMS MATRIX**

10. In support of the Government's vision of improved urban governance and service delivery and management, the ensuing program loan will have the reforms and policy measures as described in the Table 1.

**Table 1: Rajasthan Urban Sector Development Program: Policy Matrix for the Program Loan**

The State has 190 municipal bodies comprising six municipal corporations (including Jaipur), 35 municipal councils, and 149 municipalities.

The term “city”, as used in this policy matrix, refers to an urban area, which may extend beyond the legal boundary of a municipal body.

“Project cities” comprise the following six cities: Pali, Tonk, Jhunjhunu, Sri Ganganagar, Hanumangarh, and Bhilwara.

Policy Areas/Objectives	A. Actions Prior to First Tranche Release (December 2015 (indicative))	B. Actions Prior to Second Tranche Release (December 2017 (indicative))	Verification Document and Responsible Agency (RA)
<b>Output 1: Urban Institutions Strengthened</b>			
1. Establish sustainable corporatized state-level organization for urban development.	1.A.1. GOR will have approved corporatization of RUIDP to form a sustainable state-level organization with the mandate to design and implement urban infrastructure projects, and provide project management support to municipal bodies.	<p>1.B.1. GOR will have corporatized RUIDP that will have supported at least 25 municipal bodies for project management.</p> <p>1.B.2. The corporatized entity will have adopted a business plan and a human resource development policy, endorsed by UDH/LSGD. The business plan will include, among others, the corporatized entity’s vision, organizational structure, and strategy for long-term organizational growth. The human resource development policy will include provisions for independent recruitment of employees, including through campus recruitment.</p> <p>1.B.3. The corporatized entity will have established, as internal units, a technical design center with</p>	<p>1.A.1. GOR decision approving corporatization of RUIDP to form a corporatized entity. RA: UDH/LSGD, GOR</p> <p>1.B.1. Incorporation documents of the corporatized entity; GOR report confirming that the corporatized entity has supported at least 25 municipal bodies for project management. RA: UDH/LSGD, GOR</p> <p>1.B.2. The business plan and the human resource development policy documents; the corporatized entity BOD meeting minutes adopting the business plan and the human resource development policy; GOR decision endorsing the business plan and the human resource development policy. RA: UDH/LSGD, GOR</p> <p>1.B.3. The corporatized entity BOD</p>

Policy Areas/Objectives	A. Actions Prior to First Tranche Release (December 2015 (indicative))	B. Actions Prior to Second Tranche Release (December 2017 (indicative))	Verification Document and Responsible Agency (RA)
		<p>technical expertise for preparation of urban sector projects, and a safeguards and gender equality unit with capacity to prepare and/or review environmental, social safeguards, and gender equality frameworks/plans for individual projects.</p>	<p>meeting minutes, establishing the technical design center and the safeguards and gender equality unit; corporatized entity annual reports. RA: UDH/LSGD, GOR</p>
<p>2. Establish an independent corporatized utility at the city level to manage water supply and wastewater services, and promote PPPs in the urban water and wastewater sectors.</p>	<p>2.A.1. GOR will have approved the establishment of an independent corporatized utility with the mandate to manage water supply and wastewater services in Jaipur urban area.</p>	<p>2.B.1. GOR will have established an independent corporatized utility with the mandate to manage water supply and wastewater services in Jaipur urban area.</p> <p>2.B.2. The corporatized entity will have adopted a business plan and a human resource development policy, endorsed by GOR. The business plan will include, among others, the corporatized entity's vision, organizational structure, and strategy for long-term organizational growth. The human resource development policy will include provisions for independent recruitment of employees, including through campus recruitment, as well as provisions that encourage the recruitment of female</p>	<p>2.A.1. GOR decision, approving the establishment of an independent corporatized utility to manage water supply and wastewater services in Jaipur urban area. RA: PHED/UDH, GOR</p> <p>2.B.1. Incorporation documents of the corporatized entity. RA: PHED/UDH, GOR</p> <p>2.B.2. The business plan and the human resource development policy documents; The corporatized entity BOD meeting minutes adopting the business plan and the human resource development policy; GOR decision endorsing the business plan and the human resource development policy. RA: PHED/UDH, GOR</p>

Policy Areas/Objectives	A. Actions Prior to First Tranche Release (December 2015 (indicative))	B. Actions Prior to Second Tranche Release (December 2017 (indicative))	Verification Document and Responsible Agency (RA)
		employees.	
3. Delegate water supply operations from the State to the municipal bodies.	3.A.1. GOR will have transferred water supply operations, including tariff-setting authority, to the municipal bodies in the five project cities.	3.B.1. GOR will have (i) transferred adequate personnel with required technical expertise, and equipment and facilities, and (ii) provided sufficient budget allocation for O&M expenditures to the municipal bodies in the five project cities; municipal bodies in the five project cities will have established appropriate procedures for carrying out water supply operations and commenced carrying out water supply operations.	3.A.1. GOR decision transferring water supply operations, including tariff-setting authority, to the municipal bodies in the five project cities. RA: PHED/UDH, GOR 3.B.1. GOR report confirming (i) transfer of adequate personnel with required technical expertise, and equipment and facilities, and (ii) provision of sufficient budget allocation for O&M expenditures to the municipal bodies in the five project cities; an independent performance audit report confirming that the municipal bodies have (i) adequate personnel with required technical expertise, (ii) sufficient budget provision for O&M expenditure, and (iii) appropriate procedures for carrying out water supply operations. RA: PHED/UDH, GOR
4. Rationalize urban property tax in the State.	4.A.1. GOR will have issued an order rationalizing the property tax (urban development tax or equivalent) by making it applicable to all properties in all municipal bodies in the State (with the exception of properties eligible for exemptions and reductions, as decided by the government).	4.B.1. Municipal bodies will have collected property tax (urban development tax or equivalent) from at least 50% of all eligible properties in 50% of municipalities in the State.	4.A.1. GOR order to require property tax (urban development tax or equivalent) to be applicable to all properties in all municipal bodies in the State (with the exception of properties eligible for exemptions and reductions, as decided by the government). RA: LSGD/UDH, GOR 4.B.1. GOR report confirming (i) the total number of eligible properties in all municipal bodies in the State, and



Policy Areas/Objectives	A. Actions Prior to First Tranche Release (December 2015 (indicative))	B. Actions Prior to Second Tranche Release (December 2017 (indicative))	Verification Document and Responsible Agency (RA)
			(ii) the total number of eligible properties with such tax paid. RA: LSGD/UDH, GOR
<b>Output 2: Urban Governance Improved</b>			
5. Develop a long-term urban development policy.	5.A.1. GOR will have prepared a draft Rajasthan urban development policy and consulted stakeholders for a review of such draft policy.	5.B.1. GOR will have approved and publicly disclosed, including posting on its website, the Rajasthan urban development policy.	5.A.1. Draft Rajasthan urban development policy; printout of the GOR website showing availability of the draft policy for public review and comments. RA: LSGD/UDH, GOR 5.B.1. GOR decision approving the Rajasthan urban development policy; printout of the GOR website showing availability of the approved policy. RA: LSGD/UDH, GOR
6. Develop a human resource development plan for urban governance.	6.A.1. GOR will have prepared a draft human resource development plan for urban governance that includes training over a period of five years, of at least 10,000 functionaries (including all women functionaries) and elected representatives (including all elected women representatives), and will have consulted with stakeholders, including by posting the draft plan on its website, for a review of the draft plan. 6.A.2. GOR will have approved establishment of a state-level	6.B.1. GOR will have approved the human resource development plan for urban governance as finalized under tranche 1, and will have disclosed such plan on its website 6.B.2. GOR will have operationalized the Institute to train functionaries	6.A.1. Draft human resource development plan for urban governance; a printout of the GOR website showing availability of such draft plan for public review and comments. RA: LSGD/UDH,GOR 6.B.1. GOR decision approving the human resource development plan for urban governance; a printout of the GOR website showing availability of the approved plan. RA: LSGD/UDH, GOR 6.A.2. GOR decision confirming establishment of the Institute.

Policy Areas/Objectives	A. Actions Prior to First Tranche Release (December 2015 (indicative))	B. Actions Prior to Second Tranche Release (December 2017 (indicative))	Verification Document and Responsible Agency (RA)
	urban governance training institute that incorporates gender-responsive urban governance as a key training module.	and elected representatives, and will have trained at least 3,000 functionaries and elected representatives (including at least 30% of the women functionaries and elected representatives).	RA: LSGD/UDH, GOR 6.B.2. An independent performance audit report confirming that the Institute has adequate number of personnel with required technical expertise and sufficient budget provision for operational expenditure and giving data of persons trained. RA: LSGD/UDH, GOR
7. Improve revenue realization from water and sewerage charges.	7.A.1. GOR will have prepared a roadmap that includes a system to rationalize water tariffs to (i) recover full costs in the State in a phased manner, (ii) recover at least 30% of the O&M costs by 2017 and at least 100% of the O&M costs by 2019 in the five project cities, (iii) link water tariffs to inflation rate every year in the five project cities, and (iv) set different tariffs for different categories of urban areas instead of a uniform tariff for all urban areas.	7.B.1. GOR will have implemented the roadmap and rationalized water tariff to recover at least 30% of the O&M costs in the five project cities.	7.A.1. GOR decision approving the roadmap RA: PHED/UDH, GOR 7.B.1. An independent report confirming that water tariff has been revised to recover at least 30% of the O&M costs in the five project cities RA: PHED/UDH, GOR
8. Improve water supply and wastewater service delivery in the State	8.A.1. GOR will have prepared a draft urban water and sanitation policy, and consulted with stakeholders for review and comments. The draft policy will include, among others, (i) NRW reduction, (ii) operationalization of 24x7 water supply, (iii) sewerage and septage management, (iv) provision of individual water supply and	8.B.1. GOR will have approved and publicly disclosed, including posting on its website, the urban water and sanitation policy. GOR will have established a system to monitor implementation of the policy	8.A.1. Draft urban water and sanitation policy; print out of the GOR website showing availability of the draft policy for public review and comments. RA: PHED/UDH, GOR 8.B.1. GOR decision approving the urban water and sanitation policy; GOR website showing availability of

Policy Areas/Objectives	A. Actions Prior to First Tranche Release (December 2015 (indicative))	B. Actions Prior to Second Tranche Release (December 2017 (indicative))	Verification Document and Responsible Agency (RA)
	sewerage connections to households in slums and poor settlements, (v) development of water supply and sewerage GIS and computerized gender-disaggregated customers' database, (vi) guidelines to set water tariffs, (vii) water and wastewater quality monitoring systems, (viii) system to monitor billing and collection efficiency, (ix) waste and wastewater recycle and reuse, (x) bridging gaps between sanitation and health outcomes, and (xi) water and sanitation linkages with economic growth and competitiveness of cities.		the approved policy. GOR report confirming that system to monitor implementation of the policy established. RA: PHED/UDH, GOR
9. Establish benchmarking of urban services in the State	9.A.1. GOR will have approved recruitment of a service provider to develop benchmarking of urban services in the State.	9.B.1. GOR will have operationalized a system of regular benchmarking of urban services for 25 cities in the State.	9.A.1. GOR decision to recruit a service provider to develop a system of benchmarking of urban services in the State RA: PHED/UDH, GOR 9.B.1. GOR report stating that the system of benchmarking of urban services is operational in 25 cities. RA: PHED/UDH, GOR

BOD = Board of Directors, GIS = geographic information system, GOR = Government of Rajasthan, LSGD = Local Self Government Department, NRW = nonrevenue water, O&M = operation and maintenance, PHED = Public Health Engineering Department, PPP = public-private partnership, RUIDP = Rajasthan Urban Infrastructure Development Project, UDH = Urban Development and Housing Department.

### III. ENVIRONMENTAL AND SOCIAL ASSESSMENT OF POLICY INTERVENTIONS

11. The policy-based interventions, supported by RUSDP, aim to promote positive social and environmental outcomes through institutional and policy reforms for improving water supply and wastewater services. Table 2 shows the environmental assessment of the proposed policy interventions assuming full realization through completion of both tranches. In each case these are assessed by considering two extremes of the policy being implemented successfully or wholly unsuccessfully, to indicate the range of potential impacts. Mitigation measures are identified.

12. The policy and reform interventions focus on (i) strengthening urban institutions and (ii) improving urban governance, both of which will have positive environmental benefits. This analysis shows that the most important policies are those that relate to corporatization of RUIDP; establishing corporate entities for urban water and wastewater services; delegation of water supply operations from the state to the municipal bodies; long-term urban development policy; establishment of Rajasthan Institute of Urban Governance; and improved water and sewerage service delivery in the state.

13. The corporatization of RUIDP will further expand its capacity and efficiency and will help in building good quality urban infrastructure in Rajasthan, especially in small and medium towns. A key feature of this reform is the strengthening of technical expertise in preparing and/or reviewing environmental and social safeguards frameworks for individual urban projects, and establishing a dedicated safeguards unit. This will ensure that the urban projects are environmentally benign and socially acceptable.

14. Establishing autonomous water and sewerage boards will improve service levels across cities including improved access to the urban poor and slum areas. This will result in improved public health, environmental quality, and economic status.

15. The formulation and implementation of an urban development policy will result in systematic urban development achieve overall balanced and equitable socio-economic growth. Establishment of Rajasthan Institute of Urban Governance (RIUG) will ensure capacity development of ULBs. The holistic and systematic approach for improving water supply and sewerage service delivery will result in more availability of good quality water, wastewater treatment facilities, quick removal of sewage from households through underground sewers, and its safe disposal, which will greatly benefit the urban environment and public health. Improved levels in sewerage collection and treatment will benefit the environment by reducing pollution of surface and groundwater resources. This will ensure that water sources are available for downstream population, thus extending the benefits to larger areas.

16. Non implementation of these policies and reform interventions will continue to deteriorate the urban environment, especially in small and medium towns, and will severely affect the urban poor and slum dwellers. This will have significant negative impacts on health and economic wellbeing of urban poor.

**Table 1: Environmental Assessment of Policy Interventions**

Policy Intervention	Social Impacts	Environmental Impacts	Mitigation Measures
<b>Output 1: Urban Institutions Strengthened</b>			
1. Establish sustainable corporatized state-level organization for urban development	<u>Positive:</u> An enhanced RUIDP with business plan and a human resource development policy of RUIDP will further expand its capacity and efficiency in project planning, designing, contract management and implementation of urban infrastructure throughout the state, particularly in cities and towns which lack basic services. As urban areas are growth engines, and towns with good infrastructure will attract investments and boost the economic and social development of the towns, a stronger RUIDP will serve as a catalyst for economic development for the state. RUIDP will be able to better leverage urban infrastructure development, especially in small and medium towns with no capacity to conceive, design and implement good quality infrastructure projects. Services will improve on par with benchmark levels suggested by the Ministry of Urban Development, Government of India. With more efficient and higher quality services in water and sewerage, it is certain that the state would experience improved public and environmental health leading to more sustainable and equitable economic gains for urban residents, including the poor.	<u>Positive:</u> Further expansion and strengthening of RUIDP will ensure higher capacities are available to all ULBs in the state to implement high quality urban infrastructure projects critical for ensuring environmental sustainability.	<ul style="list-style-type: none"> <li>Establish a safeguards unit in the corporatized RUIDP with capacity to prepare and/or review environmental and social safeguards frameworks for individual projects. (1.B.3)</li> <li>Ensure compliance with government and donor safeguard policies in all RUIDP operations</li> </ul>
	<u>Negative:</u> In the event of non-implementation of this, RUIDP capacity will remain same, and the RUIDP will not be able to support the ULBs on a large scale. As a result, infrastructure development in urban areas, especially, in small and medium towns, will lag, not realizing their socio-economic growth potential.	<u>Negative:</u> Infrastructure levels in small and medium towns are at dismal levels, and with the ever increasing urban populations, the situation will only become worse, deteriorating environmental quality. This will have significant impacts on health and economic wellbeing of urban poor.	<ul style="list-style-type: none"> <li>Implement all reforms under RUSDP.</li> </ul>
2. Establish independent corporatized utilities at the city level to manage water supply and wastewater services, and promote PPPs in the urban water and wastewater sectors.	<u>Positive:</u> Setting up of the independent corporatized utility in Jaipur and promoting long-term performance-based management contracts for water supply and wastewater services in the six project cities will ensure focus on improved performance in crucial water supply and sewerage service delivery. More efficient and higher quality services in water and sewerage will improve public and environmental health (e.g., leading to less health care costs), and more sustainable economic gains for households.	<u>Positive:</u> Expanded technical and financial capacities at the local level through a utility in Jaipur and performance based contracting in other towns will ensure improved water and sewerage services to all households and expanded services to new areas resulting in less environmental pollution.	<ul style="list-style-type: none"> <li>Establish a safeguards unit with capacity to prepare and/or review environmental and social safeguards frameworks for individual projects. framework (1.B.3)</li> <li>Ensure compliance with government and donor safeguard</li> </ul>

Policy Intervention	Social Impacts	Environmental Impacts	Mitigation Measures
			policies in all RUIDP operations
	<p><u>Negative:</u> Non implementation of this reform will mean that the water and wastewater services are handled without focus. The technical and financial status of utility agencies will remain at present levels and service provision will continue to be inadequate. In time, services will decline further as infrastructure does not expand with the expansion in population.</p>	<p><u>Negative:</u> Lack or slow infrastructure development, will result in decline in level of water and wastewater services and rapid deterioration in the quality of life, especially in the more crowded, urban poor and slum areas. The environment and public health would worsen, so disease incidence would increase, disproportionately affecting those with the lowest incomes, who are the least able to pay for health care</p>	<ul style="list-style-type: none"> <li>• Implement all reforms under RUSDP.</li> </ul>
<p>3. Delegate water supply operations from the State to the municipal bodies.</p>	<p><u>Positive:</u> Delegating operational responsibilities to local bodies will improve accountability of municipal officials, and instill more discipline in delivery of water services in line with the needs of local people . This will help in efficient planning and expansion of services, optimal utilization of resources and sense of public responsibility and ownership of assets. This will ultimately improve availability of good quality water to the consumers resulting in health and economic wellbeing. ULBs will be able to convince people on optimal and affordable water tariffs for increased service levels thus improving the financial health of ULBs.</p>	<p><u>Positive:</u> With greater authority of water supply and sewerage services, local government will be held accountable to its residents' needs for improved water and wastewater services leading to improved water resources management and environmental quality. Cost recovery of tariffs will allow financial sustainability to ensure O&amp;M of the system, resulting in longer term environmental management once systems are in place.</p>	<p>Ensure appropriate personnel, budget, and capacity with ULBs. Ensure that the PHED provides technical assistance to the ULBs till the time they become self-sufficient. PHED involvement should be limited to technical advocacy. (3.B.1)</p> <p>Provide adequate training and capacity building of urban administrators and elected representatives in water infrastructure and service delivery (3.B.1)</p>
	<p><u>Negative:</u> In the event of non-implementation or not fully implementation of this reform will keep the water service delivery in the hands of the state-level agency, with centralized planning, implementation and delivery of services. Poor service levels and public dissatisfaction will continue.</p>	<p><u>Negative:</u> A decline in the level of water service levels would lead to rapid deterioration in the already poor quality of life, especially in the more crowded, urban poor and slum areas. The environment here is already highly degraded and this would be exacerbated poor availability of water. People will be forced to look for alternative and expensive sources. The poor may depend on unprotected sources thus disproportionately affecting those with the lowest incomes, who are the least able to pay</p>	<ul style="list-style-type: none"> <li>• Implement all reforms under RUSDP.</li> </ul>

Policy Intervention	Social Impacts	Environmental Impacts	Mitigation Measures
4. Rationalize urban property tax in the State.	<p><u>Positive:</u> Rationalization of property tax in urban areas will improve the financial sustainability of ULBs to provide long-term sustainable water supply and wastewater services. With improvement in municipal revenues, the ULBs will have a more secure future as property taxes are collected promptly in a more transparent system. The improved financial status will also help the ULBs share the financial burden of service provision with private investments. This will enable ULBs to address key issues, such as enhancing pro-poor and environmental services, which will bring socioeconomic benefits.</p>	<p>for health care</p> <p><u>Positive:</u> Improvement of financial status of municipalities will increase availability of funds for sustained infrastructure development and service delivery, which will bring environmental benefits.</p>	<p>Close monitoring of property tax collection.</p>
	<p><u>Negative:</u> With the non-implementation of this reform, the financial status of ULBs across the state will remain dismal, affecting the creation of basic infrastructure and service delivery. This will disproportionately affect the urban poor and disadvantaged groups as they lack basic services.</p>	<p><u>Negative:</u> The continuation of current poor financial status of ULBs will persistently deteriorate the environment and public health resulting from low level of infrastructure services. This will result in further deterioration in the quality of life, especially in the more crowded, urban poor and slum areas. The environment here is already highly degraded and this would be exacerbated by poor water supply, open defecation, accumulating sewage and other pollutants. Public health would also worsen, so disease incidence would increase, disproportionately affecting those with the lowest incomes, who are the least able to pay for health care.</p>	<ul style="list-style-type: none"> <li>• Implement all reforms under RUSDP.</li> </ul>
<b>Output 2: Urban Governance Improved</b>			
5. Develop a long-term urban development policy.	<p><u>Positive:</u> A clearly articulated comprehensive Urban Development Policy will result in sustainable urban development in the state leading to inclusive economic growth. This will result in major improvements planned and focused urban development, improved service delivery, and improved municipal financial health. The policy will help cities complement with each other in development focus thus helping the state to have a balanced and equitable urban development and thus eliminating the regional imbalances. These economic growth engines will further deepen the development into their hinterlands, thus achieving the overall socio-</p>	<p><u>Positive:</u> This should bring tangible improvements in the quality of life in urban areas of Rajasthan. Urban development in the state will be more systematic, and allow service delivery agencies to plan and implement projects and services in a systematic way avoiding ad-hoc approaches in expanding the infrastructure.</p> <p>The systematic approach will result in efficient use and conservation of natural resources, which should bring major environmental</p>	<ul style="list-style-type: none"> <li>• Ensure that the Urban Development Policy duly considers the environmental and social characters of the urban areas and that policy strikes a balance between economic and social development and environmental quality.</li> </ul>

Policy Intervention	Social Impacts	Environmental Impacts	Mitigation Measures
	economic development of the state.	benefits. This should improve quality of life in urban areas and bring major benefits to the population living in those areas.	
	<u>Negative:</u> The current situation of haphazard urban development will continue in the state if the preparation and implementation of urban sector policy is not taken up. The lack of planned urban development will also affect the regional development across the state.	The haphazard urban development and inefficient and high resource intensive infrastructure will continue to degrade the environment quality	<ul style="list-style-type: none"> <li>• Implement all reforms under RUSDP.</li> </ul>
6. Develop a human resource development plan for urban governance	<u>Positive:</u> This will improve the understanding of urban administrators and other functionaries on urban issues, opportunities, etc., and enable them to discharge their functions effectively. This will improve their overall capacity through appropriate training officials to address those specific social and environmental needs. Establishment of Rajasthan Institute of Urban Governance (RIUG) will ensure that the capacity development activity is continuous and will be adept to ever changing and dynamic urban sector. This will greatly improve the working efficiency of ULBs, and directly benefit the population with more responsive social and economic development.	<p><u>Positive:</u> Enhanced capacity of urban administrators, functionaries and elected representatives will improve their understanding of environmental benefits of systematic urban development, and environmental implications of various urban development policies, proposals.</p> <p>This will result in environmentally responsible development, which should improve environment, quality of life in urban areas and bring major benefits to the population living in those areas.</p>	<ul style="list-style-type: none"> <li>• Ensure that capacity development and training programs include special modules on urban environmental and social issues</li> </ul>
	<u>Negative:</u> The current non-focused urban governance will continue affecting the overall urban development across the state. This will deteriorate the quality of life and economic development in the urban areas.	Urban local bodies will continue to focus on inefficient and high resource intensive infrastructure, which will continue to degrade the environment quality	<ul style="list-style-type: none"> <li>• Implement all reforms under RUSDP.</li> </ul>
7. Improve revenue realization from water and sewerage charges.	<u>Positive:</u> Improved financial standing of ULBs will allow sustainability of water and wastewater services yielding socioeconomic gains. The reform requires setting different tariffs for different categories of urban areas instead of a uniform tariff for all urban area to ensure a pro-poor approach.	<u>Positive:</u> Improved financial standing of ULBs will allow sustainability of water and wastewater services yielding environmental gains from less wastewater pollution and sustainable water resource management.	<ul style="list-style-type: none"> <li>• Ensure that water and sewerage charges are commensurate with the socio-economic characteristics of the people. Ensure that it will not disproportionately affect poor, low income, vulnerable and disadvantaged groups.</li> </ul>
	<u>Negative:</u> Non implementation of these policy and reform will mean that the water and wastewater services are handled without focus, with arbitrary fixing	<u>Negative:</u> The existing dismal water and sewerage service levels will further decline if the revenue realization is not effected. This	<ul style="list-style-type: none"> <li>• Implement all reforms under RUSDP.</li> </ul>



Policy Intervention	Social Impacts	Environmental Impacts	Mitigation Measures
	of tariffs, and public resentment, political interference in tariff setting will continue. The financial status of utility agencies will remain at present levels and service provision continues to be inadequate. In time, services decline further as investment does not increase with the expansion in population	would lead to rapid deterioration in the already poor quality of life, especially in the more crowded, urban poor and slum areas. The environment here is already highly degraded and this would be exacerbated by open defecation, accumulating sewage and other pollutants. Public health would also worsen, so disease incidence would increase, disproportionately affecting those with the lowest incomes, who are the least able to pay for health care	
8. Improve water supply and wastewater service delivery in the State	<p><u>Positives:</u> Continuous water supply (24x7) with minimal water losses will ensure a reliable water supply system that supplies good quality water to consumers in their houses, which will avoid investment by individual households in alternative coping strategies, and storage infrastructure. It will reduce time spent by households on water collection and thus avoiding loss of their economic time. Good quality of water also mean, reduced incidence of water borne diseases and thus further improving the health and economic status.</p> <p>Similarly, improved sewerage systems for quick collection of human wastes from houses for treatment and safe disposal, house connections will greatly improve the health and economic status of the people.</p>	<p><u>Positives:</u> Considering the scarcity of water in Rajasthan, especially under future climate change scenarios, efficiency gains from NRW reduction is a key reform with important environmental benefits under RUSDP.</p> <p>Moreover, an approved sewerage and septage management policy will create the right environment to address urban environmental pollution from indiscriminate wastewater and sludge management.</p> <p>Sewerage policy, connections to individual households will significantly benefit the environment by preventing the pollution of surface water and groundwater resources. This will ensure that water sources are available for downstream population thus extending the benefits to larger areas.</p>	<ul style="list-style-type: none"> <li>• Close monitoring of policy implementation to ensure service delivery improvements over baseline.</li> </ul>
	<p><u>Negative:</u> Non implementation of these policy and reform will mean that the water supply services will continue to be inefficient and unreliable with high losses and intermittent supply. In the sewerage sector, sewerage services will continue to benefit partially as people are either not interested to connect to system or systems are unavailable.</p>	<p><u>Negative:</u> The existing high resource intensive and low efficient water supply service will continue to deteriorate the environment and public health. Lack of sewerage systems will continue to deteriorate the environmental and quality of life in urban areas.</p>	<ul style="list-style-type: none"> <li>• Implement all reforms under RUSDP.</li> </ul>
9. Establish benchmarking of urban services in the State	<p><u>Positive:</u> Bench marking of utilities in towns will help in identifying the priority sectors and areas for improvement and expansion. This will result in informed decision making in planning, creating, and maintaining minimum level of services in line with the benchmarks set by MoUD for various urban services.</p>	<p><u>Positive</u> Benchmarking will help focus areas which experience either poor access or low quality services leading to deteriorated environmental conditions. Benchmarking will significantly improve service levels, especially in poor areas, and significantly improve public</p>	<ul style="list-style-type: none"> <li>• Ensure the benchmarking system is robust and captures the information on environmental quality and separate service</li> </ul>

Policy Intervention	Social Impacts	Environmental Impacts	Mitigation Measures
	This will help in balanced urban development in all towns especially in poor areas, which are often, accorded least priority for the want of funds. This will result in improvement of environment and public health condition of the towns benefitting population equitably.	health and environmental quality.	levels in poor urban poor/slum areas, and vulnerable groups
	<u>Negative:</u> Non-development of benchmarking system will result in continuation of existing system wherein investment flow to a town is arbitrary, and much depends on the political and administrative influence of respective towns rather on the existing service levels.	<u>Negative:</u> The environmental quality towns, especially the politically, administratively disadvantaged towns, will further deteriorate due to lack of investments and projects.	<ul style="list-style-type: none"> <li>• Implement all reforms under RUSDP.</li> </ul>

GIS = geographic information system; GOR = Government of Rajasthan; NRW = nonrevenue water; PHED = Public Health Engineering Department; RUIDP = Rajasthan Urban Infrastructure Development Project; RUIC = Rajasthan Urban Infrastructure Corporation; ULB = Urban Local Body.