Report Number: ICRR0021735

1. Project Data

Project ID P071250	**Project Name** IN:AP and Telangana Municipal Devlpmnt	
Country India	**Practice Area(Lead)** Urban, Resilience and Land	
L/C/TF Number(s) IBRD-78160	**Closing Date (Original)** 31-Dec-2015	**Total Project Cost (USD)** 206,357,598.07
Bank Approval Date 10-Dec-2009	**Closing Date (Actual)** 31-Dec-2018	

	IBRD/IDA (USD)	Grants (USD)
Original Commitment	300,000,000.00	0.00
Revised Commitment	300,000,000.00	0.00
Actual	197,638,549.44	0.00

Prepared by	Reviewed by	ICR Review Coordinator	Group
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2. Project Objectives and Components

a. Objectives

According to both the Financing Agreement (FA, p.5) and the Project Appraisal Document (PAD, paragraph 19), the Project Development Objective (PDO) was to help improve the urban services in Andhra Pradesh and the capacity of the Urban Local Bodies (ULBs) to sustain and expand urban services. In the PAD, the PDO mentioned that the ULBs were in Andhra Pradesh. In June 2014, Andhra Pradesh was divided into two states - one retained the name Andhra Pradesh, the other Telangana. The PDO in the FA remained unchanged but the 2015 Restructuring expanded the PDO to include the state of Telangana. Mission documents from that time on indicated that the PDO included the state of Telangana (ICR, paragraph 16). This review will assess the unchanged PDO from the FA and will parse it as follows:

- to help improve the urban services in Andhra Pradesh (now Andhra Pradesh and Telangana)
- to help improve the capacity of the ULBs to sustain and expand urban services

The following key outcome indicators (ICR, paragraph 6, and April 23, 2015 side letter):

- increase in residents satisfaction with municipal services in participating cities; in the 2015 Restructuring this indicator was changed to the number of beneficiaries (ICR, paragraph 17).
- sub-project specific outcomes, including
  - increase in the number of hours of water supply per day
  - volume of liquid or solid waste collected and sanitarily disposed of
  - number of water and sewer connections
  - number of people benefiting from these improved services
- increase in ULB revenues
- number and quality of ULB service reports (assessment and plan) reflecting improvements in staff capacity and systems

b. Were the project objectives/key associated outcome targets revised during implementation?

No

c. Will a split evaluation be undertaken?

No

d. Components

1. State Level Policy and Institutional Development Support (US$9.2 million at appraisal, of which US$8.8 million was from the World Bank loan; revised to US$9.18 million; US$9.2 million actual, of which US$8.8 million was from the World Bank) financed the establishment of the Andhra Pradesh Urban Academy. The Academy would provide AP urban sector officials with works, goods, and technical assistance and incremental costs financing to monitor, analyze, train, and disseminate knowledge on urban development and management. In addition, this component financed studies on urban finance, town planning procedures, and technical assistance to implement programs of the Mission to Eliminate Poverty in Municipal Areas. This component financed computer hardware, software, and technical assistance to establish a Geographic Information System (GIS) cell to support the planning and monitoring of urban development.

2. Municipal capacity enhancement (US$14.0 million at appraisal, of which US$12.7 million was from the World Bank loan; revised to US$26.51 million; US$26.51 million actual, of which US$12.7 million was from the World Bank). This component financed training and technical assistance to enhance ULB's institutional capacity in urban finance, management, e-governance, planning and development, procurement, and engineering as well as GIS mapping and spatial planning program.

3. Urban infrastructure investment (US$306.0 million at appraisal, of which US$259.7 was from the World Bank loan; revised to US$298.93 million; US$298.83 million actual, of which US$182.12 million was from the World Bank) financed sub-loans, sub-grants, and technical assistance to support investments prioritized by ULBs. ULBs were required to demonstrate adequate financial capacity to sustainably finance and operate the facilities with adequate plans to improve their financial and management capacities.

4. Project management support (US$20.0 million at appraisal, revised to US$14.63 million; US$18.1 million actual, of which US$14.63 million was from the World Bank) financed technical assistance and operating costs in support of project design, implementation, monitoring, and audit by state level agencies and ULBs.

5. Front end Fee(US$0.75 million at appraisal, US$0.75 million actual, of which US$0.75 million was from the World Bank)

e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

Project Cost: The total project cost reached US$350 million and disbursed US$233.6 million. The World Bank loan disbursed US$198.02 million. The remaining US$102.0 of the loan (almost a third) was unutilized because of the depreciation of the rupee, loss of disbursement momentum after AP was divided into two states in June 2014, deletion of some activities, and the joint decision of the Government and the World Bank not to extend the loan closing date beyond December 31, 2018 (ICR, paragraph 43).

Financing: The International Bank for Reconstruction and Development financed this Investment Project Financed project with a loan of US$300.0 million.

Borrower Contribution: The Government of Andhra Pradesh and its local governments committed US$50 million in co-financing, all coming from the local governments (provincial, district, and city levels). The Borrower disbursed US$35.6 million, of which US$9.5 million was from the local governments.

Dates: The project was approved on December 10, 2009 and made effective on March 23, 2010. The Mid Term Review (MTR) was conducted on May 20, 2013. The project was originally scheduled to close on December 31, 2015 but received two extensions for a total of 36 months under two restructurings. These were the following:

- On March 26, 2015 a level 2 restructuring to rename the project Andhra Pradesh and Telangana Municipal Development Project after AP became two states on June 2014. In addition, the closing date was extended to December 15, 2017; project activities were revised replacing the State Finance Framework Study with two state level studies on urban planning and sector specific studies; reallocating funds to accommodate this studies; revising the Results Framework and disbursement schedules; and entering into a new Project Agreement with the new state of Telangana, allocating US$126 million. AP was allocated US$174 million.
- On November 13, 2017, a level 2 restructuring to extend the closing date a second time to December 31, 2018

3. Relevance of Objectives

Rationale

The PDOs - to help improve the urban services in AP and Telangana, and to help improve the capacity of the ULBs to sustain and expand urban services - remained relevant to the country's development plans. Urban development remained a government priority as evidenced by its continuing of the national programs such as the Smart Cities Mission (SCM) and the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) until 2021. The national government's urbanization development strategy, embodied in its 12th Five Year Plan (2012-2017) called for stepping up investments in new urban infrastructure assets as well as maintenance, strengthening governance with clear accountability to its citizens, and strengthening the capacity of State governments, and Urban Local Boards (see 12th Five Year Plan, Section 12).

The PDOs were also relevant to the World Bank's Country Partnership Framework (CPF) for FY18-FY22. In particular, under Objective 1.2 to improve the livability and sustainability of cities, the World Bank program included urban governance and finance by deepening engagement with selected cities and Urban Local Bodies (ULBs). World Bank operations and analytical work supported incremental improvements in ULBs including AP and Telangana. The CPF focus area 1 on Promoting Resource Efficient Growth aimed to improve the living conditions and sustainability of cities (CPF, Figure 4). In this connection, the PDO was relevant to the World Bank's engagement in urbanization policy issues at the national and state levels, focusing on urban policies, institutions, governance and finance. The 2018 Systematic Country Diagnostic (SCD) also identified support to local governments to strengthen India's service delivery system through incentives designed to improve operations and finances and improving accountability.

However, while there is clear alignment between the project's development objectives and the country and World Bank strategies, the relevance of objectives is pitched at a level that does not adequately reflect a potential solution to a development problem. While acknowledging the difficulty of the operational environment, a shortcoming here was that the objective was not defined such that its achievements would be plausibly traceable to improvements envisioned to arise from improved urban services and improved capacity of the Urban Local Bodies to sustain and expand urban services. Focusing on "improved services" and "improved capacity" alone is not outcome focused and does not help in understanding what development results were expected as a consequence of the project, whether those results were improved health, improved income, or other factors affecting community livelihoods. These may be longer term targets but identifying and tracking them are important aspects of a successful development operation.

Rating

Substantial

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

• to help improve the urban services in Andhra Pradesh (now Andhra Pradesh and Telangana)

Rationale

In June 2014, the former state of Andhra Pradesh became two states -- Andhra Pradesh and Telangana. The third project component adequately supported the 6 Urban Local Bodies (ULBs) in Andhra Pradesh and 8 ULBs in Telangana to implement investment services identified under the Detailed Project Reports (DPRs). These DPRs provided the rationale for the investment in water services improvement subprojects, targets, and implementation schedules to achieve the stated PDO to help improve urban services in the two states. This component resulted in investment activities that generated improved water service delivery sufficient to achieve the stated outcomes.

OUTPUTS:

- 211,713 new and rehabilitated piped household water connections (original target 200,000, target exceeded)
- 14 ULBs participated in the project (original target 9, revised to 14, target achieved) Of these, 6 were in AP and 3 were in Telangana. Five ULBs in Telangana were added after the 2015 restructuring.
- The following were the subproject output indicators. No original targets were provided because of the framework nature of the project. Subprojects were identified during implementation. The project baselines were provided as reference:
    - increase in the hours of water supply per day expressed in the percent increase in network coverage. This ranged from 44.11 (baseline expressed as 730 km) to 193.06 (baseline 25 km) percent increase in AP, and 14.92 to 185 percent increase in Telangana (there was no equivalent presentation of baseline data for Telangana).
    - volume of waste collected and disposed of in a sanitary manner, expressed in percentage increase in storage capacity, ranged from 7.3 (baseline expressed as 13.707 Kilo Liters or KL) to 368.83 (baseline 1.235 KL) percent in AP ULBs, and 36.43 to 562.5 percent in Telangana.
    - number of new water and sewer connections - ranged from 9,676 (baseline 2,824) houses to 33,132 (baseline 81,985) in AP to 5,063 (baseline 2,800) houses to 39,521 (baseline 35,542) houses in Telangana.
    - number of people receiving significant benefits - ranged from 40,450 (baseline 70,549) to 271,500 (baseline 264,000) beneficiaries in AP and 24,000 (baseline 23,041) to 197,605 (baseline 320,378) beneficiaries in Telangana.
    - increase in capacity of the water system (expressed in millions of liters per day or MLD). In AP, this increase ranged from 36 percent (baseline 33 MLD) to 125 percent (baseline 77.5 MLD). In Telangana, this increase ranged from 36,43 to 562.5 percent (no baseline provided).

OUTCOMES:

- The project reached 1.3 million (original target 1.2 million) beneficiaries. In AP, there were 822,299 beneficiaries (target 800,000, target exceeded) and in Telangana there were 483,382 beneficiaries (target 400,000, target exceeded).
- Participating ULBs implemented urban investments worth US$182 million (original target US$300 million, not achieved). The value of the completed investment costs was lower in US$ terms because of the depreciation of the Indian Rupee against the US dollar. This indicator did not substantiate how the investments contributed to achievement of the development objective.

- Water supply network were expanded in both states of AP and Telangana. This expansion helped reduce the dependence of these communities on informal, untreated sources of water supply, ground water extraction, and tankers. The residents in the participant cities now have daily water supply, compared to unreliable once in 2-3 days supply before the project. The evidence for this claim came from the detailed achievements of the subprojects in Annex 4 of the ICR. In AP, the increase in network coverage expanded from 44 percent in Gunfur to almost 1 1/2 increase in expanded coverage in Badvel. In the case of Telangana, ULBs increased its network coverage from 14.92 percent in Malkajgiri to 185 percent in Manuguru project. The percent increase in coverage was somewhat confusing because of cases of over 100 percent increases (or more than twice the original coverage).

There was only one outcome indicator in the Results Framework (the number of beneficiaries of the improved urban services). This outcome indicator was insufficient to determine achievement of the objective. The outcome indicator that supported the expansion of the water supply network was mentioned as helping to reduce the dependence of communities on informal, untreated sources of water supply, including through ground water extraction and tankers. The details of these achievements were provided in Annex 4 of the ICR. The communities now had access to treated water supply because they were part of the ULB's formal water supply network. The connected households received daily water supply (previously once in 2-3 days in most participant ULBs, see ICR, paragraph 26). In addition, assumptions made to capture economic efficiency achieved by the project (ICR, Annex 5) noted time saved in collecting water, savings generated by replacing the cost of water from other sources, and savings from lost earnings due to sick days because of water borne diseases. Sub-project output indicators were presented in a summary table in the main text of the ICR with details provided in an Annex (ICR, Annex 4). The detailed output indicators were reflected in "before" and "after" scenarios. Despite the lack of relevant indicators at outcome level, there was sufficient evidence in the additional information in the ICR to rate the achievement of this objective Substantial.

Rating
Substantial

OBJECTIVE 2
Objective
• to help improve the capacity of the ULBs to sustain and expand urban services

Rationale
The two project components provided training, capacity building activities, sector specific studies, and established an institution to support ULB urban planning and management in the two states. These activities were sufficient to improve staff capacity and local government systems to achieve the PDO.

OUTPUTS:

- 109 ULBs (original target 80, target exceeded) have made operational new systems of core municipal functions and citizen interface
- A digital door numbering system, based on a nine digit road network that uniquely identifies every house in the state of AP was implemented in all AP ULBs (target achieved).

- Telangana implemented its own digital home address system in 72 ULBs using satellite imagery, ground survey to map properties, roads, by-lanes, vacant plots, and slums (target achieved).
- 69 ULBs (original target 30, target exceeded) adopted improved urban planning frameworks as evidenced by the new GIS and general town plans The GIS maps included 44 layers of data for urban management was completed for 32 AP ULBs and 37 ULBs in Telangana. Planning studies were completed for 20 ULBs in Telangana, including preparation of sewerage plans and green intervention (i.e., creating public parks, green space, and general improvements of the urban space). GIS maps for the remaining 78 ULBs in AP, including revenue enhancement and 15 additional GIS data layers were completed, including digital door numbering system. The Government of AP indicated its intention to use its own resources for additional work using drone mapping. In Telangana, GIS maps covering an additional 22 ULBs was nearing completion by project closing and the Government of Telangana indicated its intention to complete this with own resources (ICR, paragraph 31).
- 60 ULB staff (original target 30, exceeded) received professional certifications as part of their training in the fields of urban planning and financial management.
- 5,393 (original target 500, target exceeded) local officials and staff, of whom 3,894 officials were from AP and 1,499 officials were from Telangana were trained and reported new skills or knowledge gained in e-governance and financial management.
- 109 ULBs (original target 50, target exceeded) adopted measures to strengthen financial and technical capacities using new e-governance systems. This includes new e-municipal Enterprise Resource Planning (ERP) applications with 22 modules in 109 ULBs in AP. Online building permitting system was completed in all 110 ULBs in AP.
- GIS units at the state level were operational by project closing (original target achieved), producing 20 GIS maps and analysis.
- AP completed a Revenue Improvement Survey for 100 ULBs.

OUTCOMES:

- On average, participating ULBs reported a 110% increase (original target 40%, target exceeded) in revenues
- The National Institute of Urban Management (NIUM) or the Urban Academy was made operational, trained staff, and conducted research.
- The project supported the design and implementation of a new municipal e-governance system called the Enterprise Resources Planning (ERP) module in all 110 ULBs in AP (no target). AP was a pioneer in ULB e-governance. Practice was adopted for wider replication as part of the Smart Cities Mission (SCM).
- The services included building permits, property taxes, integrated billing. The ERP module allowed the public to register 95 types of grievances, track the response times, and follow up actions. ERP benefited the state's 14.6 million urban residents through improved accountability, transparency, and citizen interface. The ERP enabled ULB departments to coordinate and prioritize initiatives.
- Revenues improved across all functions in all AP ULBs. Evidence was provided by the increase in water charges, in AP ULBs, for example, in Kakinada, charges rose from 23.36 percent crores in 2009-2010 period to 70.39 crores in 2017-2018 or a 201.33 percent increase (ICR, footnote 5 and Annex 4). There was no data available for Telangana ULBs.
- AP prioritized identifying unassessed properties and unauthorized trade and water connections. In an August 17, 2019 email, the project team clarified that between FY 2010 -18, the average growth in total revenues of 13 participating ULBs (out of a total of 14 ULBs participating for both investment and

capacity building support) across AP and Telangana exceeded 110%. Data for the 14th ULB was not taken because it was merged with Hyderabad Municipal Corporation and no longer exists as a separate ULB. The percent increase in the ULBs in AP ranged from a low of 59.87 percent increase (in Vizlanagaram) to a high of 236.25 percent increase (in Markapur) (ICR, Annex 4,Question 9). In the case of Telangana, the project team provided additional information on August 17, 2019 showing that the increases ranged from 211 percent (in Manuguru) to 449 percent (in Malkajgiri). There was a 30 percent increase in the identification of under assessed and unassessed properties.

- Processing time in assessing properties was reduced by an average of 7 days, a 52 percent savings in time (no target provided).
- The digital door numbering system implemented in both AP and Telangana assisted ULBs in providing public services and emergency response systems, as targeted.
- The NIUM was established as an autonomous think tank and action research institute, and has developed and delivered training modules and technical assistance to national, state, and ULB level stakeholders.

Rating
Substantial

OVERALL EFFICACY

Rationale
Almost all the original targets were exceeded by project closing although about a third of the loan proceeds were not disbursed. The depreciation of the Indian Rupee against the US dollar resulted in considerable savings, particularly in the use of resources for the investment contracts. There was sufficient evidence of outcomes, particularly with regard to achieving the second objective. There was a lack of adequate and sufficient outcome indicators to adequately measure achievement of the first objective. However, the subproject indicators provided sufficient data in achieving the improvement in delivering water services. The observed outcomes could be attributed to the project as evidenced by the "before" and "after" data of the subproject interventions in Annex 4 of the ICR and data used in calculating project efficiency (ICR, Annex 5). The project almost fully achieved its intended outcomes. There was no counterfactual or targets provided during appraisal because the project was designed as a framework project. Subproject investments and ULB participation were undertaken during implementation. Efficacy is rated substantial.

Overall Efficacy Rating

Substantial

5. Efficiency

Economic and Financial Efficiency: There was no cost benefit analyses for the project at preparation, appraisal, or implementation (ICR, Annex 5, paragraph 4) because of the framework nature of the project. This meant that sub-projects were not identified at appraisal. Like ULB participation, subprojects were determined during implementation. These infrastructure subproject investments were subjected to economic analysis using Detailed Project Reports (DPRs). These DPRs used Jawaharlal Nehru National Urban Renewal Mission (JNNURM) guidelines. Since the Bank methodology was not comparable to these JNNURM guidelines, no comparisons were made at closing (ICR, paragraph 38). Only subprojects with action plans to improve the ULB's financial and operational capacities and included operations and maintenance (O&M) were proposed. A guideline framework for ULB and sub-project selection ensured a demand-driven nature of the subprojects. At closing, three tests of efficiency were conducted.

- The first was an economic cost benefit analysis. Benefits were derived from time saved in water collection, savings in resource cost for replaced water from other sources, savings in earnings loss during sick days attributed to waterborne diseases, savings in household health expenditure spent on waterborne diseases, and benefits from incremental water supply. Using the prescribed 9 percent economic opportunity cost of capital following World Bank guidelines for Bank-funded water supply projects, analysis established economic investment rates of return (EIRRs) that ranged from 19.64 percent in AP subprojects and 18.84 in Telangana subprojects, both above the cost of capital.
- The second was a sensitivity analysis to assess the effects of changes in key variables including: (i) a 20 percent cost overrun in operations and maintenance (O&M); (ii) a 20 percent decline in estimated benefits; and (iii) the combination of these two. The sensitivity analysis showed robust results for all water supply sub-projects.
- The third was a financial analysis of water supply operations that concluded that the ULBs in both states could absorb the O&M expenses of water supply services and the additional debt service requirements. However, analysis showed that existing water tariff revenues (except in Malkajgiri in Telangana), would not be sufficient to recover the annual O&M costs of the water supply systems. To achieve full O&M cost recovery, water tariffs in the other ULBs need to be raised in the range of 8-47 percent in AP and 14-90 percent in Telangana.

Operational and Administrative Efficiency:

An earlier version of the project was negotiated in 2005. To negotiate, the Government of India (ICR, paragraph 6) required that 30 percent of subproject investments were ready to be awarded once the project was approved. The Board required the repeal of the Urban Land Ceiling Act before the project could be approved. The state legislature enacted the repeal of the Urban Land Ceiling Act in 2008. The project was then renegotiated. The subproject investments were updated. Project design adopted a framework arrangement (see Section 8 below). This meant that 70 percent of the subproject investments were identified during implementation. For two years, residents of the region covered by Telangana expressed their concerns about the equitable distribution of benefits among beneficiaries. This led to the AP Reorganization Act that divided AP into Telangana and AP in June 2014. Implementation momentum was disrupted. The loan was split between the two states. Institutional arrangements were updated. Five Telangana ULBs were added to the initial 6 AP ULBs and 3 Telangana ULBs or a total of 14 ULBs. However, the reduced time available for their implementation reduced the opportunities for capacity building support, training opportunities, and subproject investments for the additional Telangana ULBs. Additional time was required to revise the ULB level water supply planning studies to cover levels that addressed the equitable distribution of services among the different ULBs. Additional time was also needed for permitting from various national departments such as the Ministry of Railways for water pipelines to cross railway lines and the National Highways Authority of India (for water pipelines to cross national roads) and the

Department of Archaeology (for project impact on cultural property), The loan closing date was extended by two restructurings for a total of three years.

At closing, 34.1 percent of the US$300 million loan remained undisbursed. There was a significant depreciation of the Indian Rupee against the US dollar that led to significant cost savings by as much as US$42 million in 2014 and another 14 percent rupee depreciation in 2018. Some activities were deleted during the 2015 restructuring. The Government and the Bank decided not to extend the loan closing date a third time for additional activities. The Government also decided to retain the original loan amount. Slow disbursement and delays in contract execution toward project closing downgraded the Implementation Progress to *Moderately Unsatisfactory.* The extension of the disbursement grace period to June 30, 2019, was anticipated to result in approximately 70 percent disbursement.

Efficiency Rating

Modest

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal		0	0 ☐ Not Applicable
ICR Estimate	✓	19.30	78.05 ☐ Not Applicable

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome

The relevance of objective was rated substantial. Efficacy was rated substantial for both objectives 1 and 2. Efficiency was rated modest.

a. Outcome Rating

Moderately Satisfactory

7. Risk to Development Outcome

The following posed risks to development outcomes:

- **Government commitment.** The Government of the State of Telangana committed budgetary provisions using own resources to complete subprojects by June 30, 2019. Both states committed to scale up the project outcomes using own resources and the two national government initiatives, SCM and AMRUT. There was a risk that the Government of the State of Telangana may not release the promised resources. In its August 17, 2019 email, the task team confirmed that all works were completed as promised.

- **Financial sustainability.** There is a risk that the existing water tariffs that ULBs charged may not sufficiently cover the O&M requirements of the water supply improvement subprojects. Mitigating this risk requires that the State, ULBs, the Commissioner for and Director of Municipal Administration, and regulators work together to raise revenues that would fully cover O&M costs to reduce the need for subsidies.
- **Institutional support.** Rotation and reassignment of trained personnel continue as part of regular government operations. To mitigate losing the built capacity, the governments and the academy need to retrain replacement staff. The academy would be an avenue for institutionalized capacity building.
- **Social support.** During project implementation, ULBs consulted its residents in prioritizing subproject investments. Residents associations were involved in grievance resolution during implementation. These roles were not adopted as part of the institutional O&M processes of the ULBs. There is a risk that the consultative practice may not continue beyond the project. To mitigate this risk, ULBs could include the continued engagement by stakeholders as part of its e-governance or grievance mechanism.

8. Assessment of Bank Performance

a. Quality-at-Entry

At entry, the World Bank team incorporated the following lessons from previous AP and local governance service delivery projects in the project design: (i) from the $150 million grant U.K. Department for International Development (DFID) financed AP Urban Services for the Poor Project (APUSP) (PAD, paragraph 11), the value of a “challenge fund” mechanism where investment funding was conditioned upon institutional development and reform, the need for sufficient technical support and policy reform to accompany ambitious targets; and the need for adequate capacity in trunk infrastructure to facilitate service improvements at the neighborhood level; (ii) the importance of establishing state policies and institutions that support effective and sustained improvements in performance at the local level; (iii) establishing strong financial and management capacities at the ULB level to borrow from the capital markets. The project was relevant to the country's urbanization strategy. The approach focused on strengthening the capacity of the Urban Local Bodies and enhancing the capacity of the state to facilitate its sustainability.

An earlier version of the project was negotiated in 2005. The Government required that 30 percent of subproject investments were ready for award after project approval. The Board required the repeal of the Urban Land Ceiling Act before project approval. The state repealed that Act in 2008. The Project loan was renegotiated. The 30 percent pipeline was updated.

Design adopted a framework approach. This meant partial readiness for project implementation. Participating ULBs and the remaining subproject investments would be identified during implementation using agreed criteria and ULB determined priorities. Agreed criteria included the institutional strengthening factors under the Jawaharlal Nehru National Urban Renewal Mission. Design supported building local capacity within the municipal administration system rather than enhancing ULB capacity to access capital markets. Activities and components were designed to support state policies and institutions that would sustain local government performance.

The PAD identified a number of moderate to substantial risks. These included political will for local autonomy and accountability, selection of suboptimal subprojects, weakened demand for state reform, financial management, and procurement risks (PAD, paragraph 41). Mitigating measures adequately addressed these risks. These included prioritizing institutional capacity building for accountability and effective local governance through citizen participation, consultations, and identification of training opportunities. Local stakeholders determined subproject investments. ULB participation and proposing subproject investments required demonstrating and committing to capacity improvements. Terms of reference for state level reforms were agreed before appraisal. Design adequately identified fiduciary and safeguard needs. Training on safeguards, procurement, and project management were conducted at appraisal. Safeguards documentation included a Manual for Urban Local Bodies and Information and Consultation Strategy (ICS) and Action Plan.

There were moderate shortcomings in preparation as evident in the readiness to implement the project. The design also led to a less rigorous set of indicators that formed a weakened results framework (see Section 9 below). There were also shortcomings in assessing the risk of a condition for Board approval of the loan.

Quality-at-Entry Rating

Moderately Satisfactory

b. Quality of supervision

The Bank team, with the core team in country, conducted semi annual missions over the course of a nine-year implementation period. Focus on development outcome was evident in selecting the participating ULBs using agreed criteria and identifying locally determined subproject investments. These criteria included (i) satisfactory and current audit of municipal accounts; (ii) an operating budget surplus of more than 15 percent of the identified subproject; and (iii) an approved Municipal Reform Action Plan that included actions to increase the ULB's operating surplus to cover operating costs of the proposed subprojects. These criteria were also used by JNNURM (ICR, paragraph 52). The Bank team mobilized specialists to address technical aspects, social and environmental safeguards, and M&E project issues during implementation. Mission documentation including the 2013 Mid Term Review (MTR) candidly recommended corrective measures to expedite sub-project implementation. However, no changes were made to the conservative targets for the indicators to consider the impact of implementation progress during the two restructurings.

In June 2014, Andhra Pradesh formally divided into two states after prolonged protests by residents of Telangana. The new state of Telangana included 10 former districts of AP and the former AP capital of Hyderabad. Subproject approvals awaited the finalization of the loan split between the two states. Project staff were re-assigned and re-trained. The two level 2 restructurings addressed the implementation issues brought by the division of AP state into AP and Telangana states and ensured the completion of the project activities (ICR, paragraph 12). The March 2015 restructuring retained the original PDO but modified the implementation arrangements. The original PDO in the FA referred to AP but subsequent documentation indicated that the PDO referred to AP and Telangana. This restructuring also extended the closing date by 2 years. The 2017 restructuring extended the closing date by another year.

Outside the control of the Bank and the Government, the Indian rupee depreciated during implementation. The exchange rate losses in 2014 was noted as cost savings valued at about US$42 million. This negatively affected loan disbursements. With reduced implementation time left, the additional five Telangana ULBs were not provided sufficient opportunities for training, capacity building, and subproject investments. Both the Bank and the Government agreed not to extend project closing to accommodate the completion of these activities. The Government completed the rest of the project using its own resources. In addition, the Government and the Bank agreed not to reduce the original loan amount. In its August 17, 2019 email to IEG, the task team clarified that cancellations were discussed at multiple meetings between the World Bank, the Government of India's Department of Economic Affairs, and the two states, highlighted in mission reports, and suggested as early as the 2013 Midterm Review. However, the Government of India decided to retain the original loan amount of the Project.

There were moderate shortcomings in the proactive identification of opportunities and resolution of threats to achieving the PDO.

Quality of Supervision Rating

Moderately Satisfactory

Overall Bank Performance Rating

Moderately Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The theory of change of the project was sound. Building capacity at the local level would improve infrastructure (water) service delivery to satisfy beneficiary residents. The PDOs were clear although the FA did not specify the second state of Telangana in its original statement. In addition, the objectives were pitched at a conservative level that did not correspond to the development problem being addressed. The PDOs were not sufficiently defined to correlate the completion of the project activities to sustain the improvement in urban services and urban capacities. As noted earlier, how improved services and improved capacities resulted in improved health, income, and livelihood were not captured by the selected indicators. There were three key outcome indicators and none sufficiently addressed the development outcome expected in implementing this project. The ex-post efficiency discussion in the ICR (Annex 5) provided an insight on the development impact of the project. Twelve intermediate indicators measured 7 timebound outputs to assess the progress of the four project components to achieve the PDOs. However, because of the framework design of the projects, the original target indicators were conservatively set. These targets were not updated during the two restructuring with the benefit of implementation progress. An outcome indicator could have been added to reflect the cost effectiveness of water sector improvements, e.g., the rate of increase in servicing all residents, and whether water tariff rates could support O&M needs in the long run. There was also an intermediate indicator (master plan for the capital city of AP) that was completed using non project funds but continued to be part of the results framework.

Baselines were reported at "0" in Annex 1 of the ICR. But the ICR Annex on Efficiency (Annex 4) provided baseline data of all 14 ULBs before and after the subprojects. The Municipal Strengthening Units (MSUs) were responsible for the project M&E. M&E included tracking the ULBs' project expenditures, the flow of funds, and functions of the state administration and the ULBs. The overall implementing entities of the M&E were the Municipal Administration and Urban Development departments of AP and Telangana.

The Results Framework, while clear, contained output indicators under subproject outcomes. For example, the number of new or rehabilitated piped households water connections and the number of ULBs that have made new systems for core municipal functions and citizen interface operational. These indicators could have been clarified and made more rigorous during restructuring. Original conservative targets were not revised during restructuring. As a result, almost all subproject investment targets were exceeded, some by more than 100 percent.

b. M&E Implementation

The project was implemented by the respective Municipal Administration and Urban Departments (MAUD) of AP and Telangana (ICR, paragraph 18). The project M&E tracked project expenditures by ULBs. The ULBs reports identified and designed the investment and TA programs, planned and managed implementation, and funds that were contributed to the sub-projects. The ULBs completed progress reports which included costs, payments, extensions, problems, amount and type of ULB contributions, and whether or not there were maintenance, business, and environmental management plans. At the state level, a Municipal Strengthening Unit (MSU) under the Commissioner and Director of Municipal Administration (CDMA) implemented the project and coordinated training for the ULBs and reporting. Both the MSUs and ULBs reported on funds flow and administrative functions. (ICR, paragraphs 57 and 62). The lack of robustness in the intermediate outcome indicators were not refined during the 2015 or 2017 restructuring.

c. M&E Utilization

There were significant shortcomings in the M&E system’s design and implementation. It was difficult to test the links in the results chain, particularly in exceeding the conservative target indicators. Most of the target output and outcome indicators were exceeded. The ICR explained that this was due to "intense efforts" by both states following the 2015 division. In addition, the number of beneficiaries was not in itself a measurement of improved urban services. There were significant weaknesses in the use and impact of the M&E system. The M&E reports generated by the ULBs and MSUs were used to identify subprojects that were at risk of not being completed by project closing. Adequate commitments were secured from the government to ensure that the subprojects were completed. More information, for example, was needed to see how the M&E system was institutionalized using the e-governance portals of both states. The ICR reported that in AP, the Enterprise Resource Planning (ERP) module monitored performance indicators using ULB data plus GIS maps with ULB performance layers. Telangana's ERP system was redesigned in 2018 (ICR, paragraph 28) and was implemented using its own resources.

M&E Quality Rating

Modest

10. Other Issues

a. Safeguards

Environmental and Social Safeguards: The project was classified as Category A. The following safeguards were triggered: OP/BP 4.01 Environmental Assessment, OP/BP 4.36 Forests, OP 4.09 Pests, OP/BP 4.11 Physical and Cultural Resources, OP/BP 4.10 Indigenous Peoples, and OP/BP 4.12 Involuntary Resettlement. In the ICR, safeguards compliance was expressed as satisfactory, suitably responsive, and implemented in an acceptable manner (ICR, paragraphs 67, 68, and 69). A Social and Environmental Assessment and Management Framework (SEAMF) was prepared and revised in 2015. The revision included the provisions of the GOI's 2014 "Right to Fair Compensation and Transparency in Land Acquisition and Rehabilitation and Resettlement Act." The SEAMF was developed into a Project Manager's Manual and a Manual for Urban Local Bodies to guide project implementation. These manuals included a Social and Environmental Capacity Building Action Plan (SECAP) and an Information and Consultation Strategy (ICS) and Action Plan to ensure that information was available to stakeholders throughout project implementation. The Action Plans also included facilities for feedback. The Project's safeguard documents were adopted by the successor states. Implementation of social safeguards was generally satisfactory. Minimal issues relating to land acquisition or implementation of the Tribal Development Plan were noted but not specified. The final ISR downgraded compliance with social safeguards management to "*Moderately Unsatisfactory"* because of delays in providing house ownership titles in one of the ULBs in AP. The ownership titles were provided after project closing. This demonstrated the ULBs' commitment to the Project. Environmental safeguards were rated "*Satisfactory"* in the final ISR. The Project enabled the adoption of several good environmental management practices, including provisions for recycling backwash water in water treatment plants, monitoring of air and water quality, use of personal protective gear by workers, public notices on work periods and contact details of staff in charge, systematic records on tree cutting and road restoration requirements, and the use of cautionary signage to restrict unauthorized access to work areas.

b. Fiduciary Compliance

Financial Management:: The Project financial management was adequate. Accounting and reporting in both states, as well as internal audits, were mostly on time. External audits were normally delayed. No qualified opinions were reported. However, there were no outstanding reports at closing. Both states submitted utilization certificates when funds were required, rather than on a monthly basis. This delayed accounting process was repeatedly highlighted in Project mission reports. The Project disbursed both sub-grants and sub-loans to the ULBs through the Finance and Infrastructure Development Corporations of AP and Telangana (APUFIDC and TUFIDC), which the Bank reimbursed. The APUFIDC and TUFIDC conducted fiduciary appraisal of subproject proposals and ULBs, verified and disbursed funds, and collected repayments. Both states had some issues with ULBs making less-than-agreed contributions to sub-projects. These shortcomings did not affect disbursement or implementation results. These affected the overall financial closure of contracted packages. In Telangana, ULBs reported unpaid bills and requested transfer of funds from TUFIDC to contractors rather than the state releasing funds directly to ULBs. Mission packages requested corrective measures because these delays affected project implementation.

Procurement: The procurement process complied with World Bank procurement rules and procedures. The ULBs and state agencies showed increasing capacity for conducting procurement planning and bidding.

c. Unintended impacts (Positive or Negative)

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d. Other

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11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Moderately Satisfactory	Moderately Satisfactory	
Bank Performance	Moderately Satisfactory	Moderately Satisfactory	
Quality of M&E	Modest	Modest	
Quality of ICR	---	Substantial	

12. Lessons

The ICR presented five lessons from the operations, which could inform future similar operations:

- **Using locally determined priorities as a platform to build capacity may reinforce incremental benefits**. In this project, the focus was on building local government capacity at the ULB level to deliver improved infrastructure (water) services. At the state level, the assistance focused on how best the state could sustain the built capacity of the ULBs using state level policies, rather than acting as intermediaries for ULB access to capital. The project provided evidence that enhancing the state's capacity to foster an enabling environment could lead local bodies to adopt means and methods to implement locally determined investment priorities. By strengthening local capacities and adopting streamlined systems and processes, local governments could obtain the confidence to access capital markets.
- **Unrealistic conditions for Board approval may delay project start up.** In this project, the state legislature repeal of the Urban Land Ceiling Act was made a condition for the loan. That repeal occurred three years later delaying loan approval. The project was renegotiated and the requirement for a project pipeline needed to be updated. Loan conditions for similar future projects could be achieved by ensuring their reasonableness in the face of existing social and political climates.
- **Indicators in framework designed projects may benefit from periodic updating**. In this project the original conservative target indicators were not changed even as the project

progressed. The indicators could have been divided by state following the subdivision of the original state into two. Reviewing indicators as implementation progressed following the identification of subproject investments could provide a robustness in the outcome indicators to achieve the PDOs. A project using a framework design calls for frequent review of targets and appropriateness of indicators.

- **Responding to demand by bundling capacity building technical assistance packages may optimize mainstreaming.** In this project, the capacity building TA packages called for comprehensive studies across a wide range of ULBs. This approach was designed to facilitate cross learning and coordination. However, recipient ULBs showed uneven progress. Capacity building TA packages for local governments may be piloted to address issues based on demand, Provision for adoption and mainstreaming through wide dissemination and follow on projects could be added to a bundled TA package.
- **Added water meters to measure water consumption as part of the provision of water services may improve willingness to pay and increased tariff collections.** New household water connections plus new meters equal improved water services collection rates. In this project some new household connections reported that metering was not included in the delivery of water service improvements. Integrating the meter to deliver improved water services allows the provider to collect the correct fees and gives the consumer confidence in paying for service received. Increased collections could lead to self-financing O&M needs of water projects without resorting to subsidies from ULBs.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR was thorough, succinct, and provided evidence to support the narrative and the ratings. The report followed OPCS guidelines and was internally consistent. For example, the Quality at Entry of Bank Performance (Section 8) was reinforced by discussions regarding the key factors during preparation (section III of the ICR). The theory of change guided the reader in understanding how the ratings were determined. Evidence was obtained from mission and implementation reports as well as reports coming from the state and from the ULBs themselves. For example, an independent third party conducted) an impact evaluation of land acquisition and resettlement implementation in two towns (see ICR, Annex 6). The ICR focused on results as evidenced by the discussion on project efficacy (ICR, paragraphs 24 - 34). With its annexes, the ICR provided additional evidence to support the subproject outcomes. It is candid, accurate and generally aligned to the PDOs. Lessons were clear, useful, and based on analyzing project operations. These lessons were noted elsewhere in the report as evidenced by the citations throughout the report on the impact caused by the division of the state of AP into two, the rationale behind the restructurings, and the exchange rate losses negatively affecting disbursement. The quality of evidence and analysis reinforced the project design and results although there were minor shortcomings in the completeness of baseline data and information.

a. Quality of ICR Rating

Substantial