Report Number: ICRR0022894

1. Project Data

Project ID	Project Name
P150844	RW-Urban Development Project
Country	**Practice Area(Lead)**
Rwanda	Urban, Resilience and Land

L/C/TF Number(s)	Closing Date (Original)	Total Project Cost (USD)
IDA-57840	30-Jun-2021	95,420,944.05
Bank Approval Date	**Closing Date (Actual)**	
29-Mar-2016	30-Jun-2021	

	IBRD/IDA (USD)	Grants (USD)
Original Commitment	95,000,000.00	0.00
Revised Commitment	95,000,000.00	0.00
Actual	95,422,584.46	0.00

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2. Project Objectives and Components

a. Objectives

According to the Financing Agreement (FA, p.6) and the Project Appraisal Document (PAD, paragraph 11), the Project Development Objective (PDO) for the Rwanda Urban Development Project was "to provide access to basic infrastructure and enhance urban management in selected urban centers of the Participating Districts."

This review will assess the extent to which the project achieved the PDOs against the following separate objectives:

- To provide access to basic infrastructure in selected urban centers of the Participating Districts
- To enhance urban management in selected urban centers of the Participating Districts

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

No

c. Will a split evaluation be undertaken?

No

d. Components

1. **Provision of Basic Infrastructure in Secondary Cities:** (US$80.0 million at appraisal, US$72.43 million actual). This component was to finance an Urban Development Grant to be allocated between a general pool (US$75 million) and a performance pool (US$5 million). Funding from the general pool was to be distributed according to a formula and would finance basic infrastructure investments in the target cities. Infrastructure to be financed include the construction of roads, sidewalks, footpaths, public lighting, drainage structures, urban upgrading, and solid waste management and sanitation. Funding from the performance pool was to be distributed to the districts following a mid-term assessment of progress.

2. **Upgrading of Unplanned Settlements in the City of Kigali** (US$10.0 million at appraisal, US$10.49 million actual). This component was to finance detailed technical studies, consultations, and the upgrading of roads, footpaths, streetlights, and drainage in the 4 cells (Rwampara, Kiyovu, Biryogo, and Agatare) of the Nyarugenge District of the capital Kigali. The upgrading was to serve as a model for scaling up community-based urban regeneration in other parts of Kigali and secondary cities.

3. **Technical Assistance for Sustainable Urban Management** (US$3.0 million at appraisal, US$0.92 million actual). This component was to finance technical assistance (TA), equipment, and software to strengthen the urban management capacity of the target cities in: (i) promoting local economic development; (ii) using Geographic Information System (GIS)-based products; (iii) managing urban infrastructure; and (iv) scaling up urban upgrading.

4. **Support for Project Management** (US$2.0 million at appraisal, US$5.39 million actual). This component was to finance expenditures of the Project Coordination Unit (PCU) of the Ministry of Infrastructure (MININFRA) and the Single Project Implementation Unit (SPIU) of the Local Administrative Entities Development Agency (LODA). Such expenditures included staffing costs, project implementation training, safeguards monitoring, beneficiary surveys, design review, and supervision.

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

Project Cost: The original total project cost was equivalent to US$95.0 million. The credit disbursed US$95.42 million including US$6.2 million in advance payment for all 4 components.

Financing: The International Development Association (IDA) fully financed this credit. The German Development Bank (KfW) committed Euros 8 million to update the LODA Monitoring and Evaluation Information System (MEIS), and its capacity building needs. The MEIS module to be financed included holistic, decentralized infrastructure asset management functions such as inventory, status monitoring, budgeting, and financing.

Borrower Contribution: The government committed US$5.0 million in contribution. None was disbursed.

Dates: The project was approved on March 29, 2016 and made effective on July 13, 2016. The Mid Term Review (MTR) was conducted on September 17, 2018. The project closed as originally scheduled on June 30, 2021. There were no restructurings.

Split Rating: No split rating of the outcome was undertaken in this review. The PDOs and the outcome indicators were unchanged throughout implementation. According to the ICR, revisions in target values were clarifications to errors in the PAD and were not material to the achievement of the objectives (see Section 4 Efficacy below).

3. Relevance of Objectives

Rationale

About 20 percent of the population in Rwanda are in urban areas. In the capital Kigali, 79 percent of its residents live in unplanned settlements. 63 percent of settlements in Kigali and in some of the secondary cities constitute these unplanned or informal settlements characterized by unmanaged urban growth, a lack of basic infrastructure, and poor living conditions. The proliferation of informal settlements limit rural-to-urban transition. Rwanda's exposure to climate change and heightened risks from urban floods also undermine its growth prospects. Urbanization in Kigali and other urban areas in Rwanda have not generated productivity gains from the agglomeration economies seen in other growing cities. The project was to manage the growth of unplanned settlements in the target cities and provide access to basic infrastructure The project would also strengthen local management capacity to deliver the burgeoning demand for urban services.

Country Context: Rwanda is landlocked, hilly, and one of the most densely inhabited countries in Africa. At 17 percent of its 11 million people living in urban areas, it is one of the least urbanized. According to the 2015 National Urbanization Policy, Rwanda experienced a steady annual urbanization rate of around 4.1 percent. At this rate, the country would be 30 percent urbanized by 2030. Over a million reside in the urban capital Kigali, while the population of the secondary cities ranged from 149,200 in Rubavu to 50,600 in Muhanga. The urban population in Kigali was growing at 9 percent a year while the secondary cities growth ranged from 5.4 percent in Rubavu to 1.9 percent in Huye. The government expects urbanization as a key driver of growth (see Country Plans below). Urbanization and secondary cities as poles of growth would transform its economic geography and move half of its population from farm to off-farm jobs. These non-farm jobs were expected to be concentrated in urban agglomerations. Urban growth centers therefore needed conditions such as addressing the infrastructure deficits that promote economic activity to benefit from such agglomeration. Rwanda was poised to achieve a rapid growth trajectory, exceeding 10 percent in 2019 but the COVID 19 pandemic slowed down the Gross Domestic Product (GDP) growth rate to 3 percent in 2020. Rwanda experienced its first recession since 1994.

Country Plans: The PDOs were relevant to the country's development strategy. "Vision 2050," which aimed for an upper middle-income status by 2035 and high-income status by 2050. The National Strategy for Transformation (NST) for 2017–2024 contained a medium term framework of strategic priorities. The 2015 National Urbanization Policy recognized that urban development would enhance economic growth and improve the quality of life for everyone. The Economic Transformation Pillar of the NST aimed to accelerate sustainable urbanization from 18.4% (2016) to 35% by 2024 to facilitate economic growth (NST, paragraph 17, and page 17) by:

- Developing flagship projects in key cities to sustain urban economies (with employment and incomes).
- Updating, modernizing, implementing, and monitoring master plans of key cities and towns.
- Together with the private sector, developing local construction materials (Made in Rwanda policy).
- Improving rural and urban transportation services.
- Developing basic infrastructure.

Kigali’s long-term urbanization strategy aimed to promote agglomeration in a hierarchy of cities led by Kigali, to be a hub for high-value industries. In 2013, Rwanda focused on the infrastructure to make the country a business, tourism, financial services, and communication hub in high-value sectors (termed meetings, incentives, conferences/conventions, and exhibitions/events, or MICE industry). However, the lack of urban land in and around Kigali constrained market forces, limiting Kigali’s growth potential and its capacity to absorb rural workers. The secondary cities were to form an urban backbone and serve as growth poles for off-farm employment. District centers were to maintain their connections to the urban centers to serve as conduits to urban agglomeration. Rwanda prioritized urban development to harness agglomeration for economic growth.

World Bank Partnership: The PDOs were relevant to the two of the five objectives of the Country Partnership Framework (CPF, FY 2021–2026) for Rwanda, complementing Rwanda's effort to achieve growth and poverty reduction through market-driven urbanization and agglomeration. First, Objective 3 aimed to expand access to infrastructure. Second, Objective 5 aimed to achieve a well-managed urbanization by intensifying urban agglomeration. The PDOs directly contributed to this “Intensified Urban Agglomeration” by increasing the number of urban residents with access to all season roads within a 500 meter range in Kigali and the secondary cities, and improving living conditions in unplanned settlements.

Relevant World Bank Experience in the Sector and in the Country: This operation was preceded by the 2009 Urban Infrastructure and City Management Project. That operation was rated highly satisfactory in achieving its objectives. This operation was the first reengagement of the Bank in the urban sector in the country. A follow-on operation, the Rwandan Urban Development Project Phase 2 (US$159 million with IDA and Global Environmental Facility financing) was approved in October 2020, to build on the outcome of this operation. The RUDP 2 would expand the upgrading of unplanned settlements in Kigali to 385 hectares and about 515 hectares in six secondary cities; implement an integrated flood risk management; and strengthen economic and spatial planning capacity of cities’ for efficient infrastructure and service delivery. MIGA is providing a guarantee for the construction of Kigali Bulk Water Supply water treatment plant, pumping stations, and storage reservoirs. Ongoing urban transport sector policy dialogues such as Enhancing Urban Mobility in Kigali 2 (P171671), to build capacity to manage urban mobility is assisting in public transport reform, bus-rapid-transit (BRT) development, and eMobility. The government expects to apply for an investment project financed (IPF) operation to support congestion relief investments and tackle urban air pollution in Kigali. Junction improvements, freight management, dedicated bus lanes, the first corridor of a new BRT system with options for electric mobility, and institutional strengthening for national and city-level institutions would be financed. The World Bank also expects to support Rwanda in developing climate-compatible, sustainable urban infrastructure through Nationally Determined Contribution Deep Dive Support Project under the Paris Agreement. This project would support infrastructure development in secondary cities by focusing on sustainable settlement through strengthened spatial planning, improved waste disposal and recycling, air and water pollution management, and efficient use of water resources.

The PDOs were aligned to the country and World Bank strategies. The PDOs complemented the country's urbanization strategy by providing access to basic infrastructure and in managing the growth of unplanned settlements in the target cities .The PDOs also addressed the strengthening of local management capacity to deliver the burgeoning demand for urban services.

Overall, the relevance of objectives is rated Substantial. The objectives were substantially relevant and directly contributed to the country's development plans. They were also aligned with the World Bank's current partnership strategy for Rwanda. The participating districts used the project's holistic approach to address the development problems caused by inadequate access to basic infrastructure and their lack of urban management capacity to deliver services to their constituents. The project limited its scope to selected urban centers of participating districts to acknowledge the limited implementation capacity of the government.

Rating

Substantial

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

To provide access to basic infrastructure in selected urban centers of the Participating Districts.

Rationale

Theory of Change: Two categories of inputs were chosen to achieve this objective. One set was to provide basic infrastructure in the six secondary cities. The other was to upgrade an 86-hectare unplanned settlement in Nyarugenge District. This was the oldest neighborhood in the capital Kigali, adjacent to its central business district.

Inputs consisted of construction and rehabilitation of roads, sidewalks, footpaths, public lighting, and drainage. These inputs were to be implemented in two phases. Phase 1 was to use an initial set of infrastructure inputs in roads and drainage to demonstrate implementation capacity. Phase 2 was to expand the scope of these initial infrastructure inputs to include urban upgrading and solutions for solid waste management and sanitation. The inputs directed at the unplanned settlements included technical studies, consultations with residents, and constructing roads and drainage.

Two sets of **outputs** were reasonably attributed to these inputs, one directed at the six target cities, and the other at the four cells of the 86-hectare unplanned settlement. These outputs were to include paved roads, improved drainage, improved vehicle and pedestrian transit in the six target cities and improved roads, footpaths, streetlights, secondary and tertiary drainage in the four cells (Rwampara, Kiyovu, Biryogo, and Agatare) of the unplanned settlement.

Outcomes from these outputs were: access to basic urban infrastructure in the target cities, and the creation of a model for community-based urban regeneration to be replicated in other parts of Kigali and in secondary cities. Two outcome indicators were to signify achievement of the PDO - the number of beneficiaries, and the area, in hectares (ha), improved by the upgrading of the unplanned settlements. The objective was pitched high enough in the results chain but only up to achieving access (measured by the number of beneficiaries). The other outcome indicator (area in hectares) was more an output rather than an outcome. Other indicators such as reliability, quality, or customer service standards were not included.

For the PDO to have a greater likelihood of being achieved, the ToC made the following assumptions. One, if a consultative and participatory approach prioritized infrastructure investments. Second, if local contractors had the capacity to undertake complex infrastructure projects. Third, if district authorities and communities were to maintain the constructed or rehabilitated assets. At implementation, the second assumption did not materialize, contributing to implementation delays, and limiting the achievement of the objective (see Outcomes, Sections 8 Bank Supervision, and 10 Other Issues below). In addition, a two-phased approach linked to two pools of Urban Performance Growth (UPG) grants was to allow districts to implement phase 1-funded activities, gain experience, learn lessons, and prepare them for more complex initiatives in the second phase. The UPG would consist of a general pool (US$75 million) distributed by formula, and a performance pool (US$5 million) to be distributed after a mid-term assessment of district performance. At the Mid Term Review (MTR) the Bank team and the government agreed to drop the performance component because of a lack of data on poverty by urban area and comparable factors to assess district performance (ICR, paragraph 19).

Outputs:

- 89.32 km (target 81 km, target exceeded) of asphalt roads were rehabilitated or constructed
- 29.95 km (target 44 km, target not achieved) of standalone drains were rehabilitated or constructed. The standalone drains in Rubavu were not completed because the volcanic eruption in the adjacent Democratic Republic of Congo (DRC) suspended works.
- 1,175 people (target 700, revised to 1,000, target exceeded) were consulted. 398 were female (target 350, revised to 500, target partially achieved) .
- 599 streetlights (no targets in the ICR and confirmed by the Task Team in their May 11, 2022 email to IEG) were installed.
- In the unplanned settlements, 111 has (target 86 ha, target exceeded) were upgraded, including 9.2 km of roads,19.1 km of pedestrian walkways, and 7.4 km of storm water drains. Output targets in the upgraded settlements were determined during implementation.
- 7,906.75 ha (target 3,479 ha, target exceeded) of land area were provided with drainage services. The results framework identified this output as an outcome indicator.

Outcomes: The outcome indicators were the number of beneficiaries and the upgraded area of unplanned settlements (reported as an output above). The remaining outcome indicator was not sufficient to capture the potential outcomes of the project interventions such as the quality, service delivery standards, reliability of the infrastructure investments, or the effect of the project interventions on the lives and livelihoods of residents in the project area (e.g., increased business opportunities, jobs created, improved health and safety). However, efforts were made to provide anecdotally the expected outcomes from the project interventions. These qualitative observations were obtained from the performance assessment of the first phase of the project, the beneficiary interviews, and the government's completion report.

- 153,254 people (baseline 36,299, target 88,000, target exceeded) in urban areas were provided with access to all-season roads within a 500-meter range. Project beneficiaries interviewed at closing noted the decrease in transport costs and travel time, improved traffic flow, and better access to schools and markets by having access to paved roads. The respondents also noted reduced flooding from improved drainage, improved security due to the installation of streetlights, and increased pedestrian safety from the introduction of footpaths. However, these anecdotal claims were not supported by data. The target in the PAD and the ICR was 118,805 but this value represented the overall direct beneficiaries, not just for the roads sub-project (see below).
- 154,599 people (baseline 0, target 118,805, target exceeded) were the direct project beneficiaries of the project. According to the ICR, the PAD and the Bank's Implementation Support Mission Reports (ISRs) revised the target value for the number of beneficiaries for the roads (88,000) and the overall direct beneficiaries (118,505, ICR, paragraph 25).
- 51.70 percent of the direct beneficiaries were female, as targeted.
- There were no outcome indicators or targets or data to support the following, reported in the ICR under Other Outcomes and Impacts:
    - In the upgraded area of the unplanned settlements, the roads and street lighting were reported to have improved mobility. Students interviewed indicated that prior poor street conditions in Agatare made transportation nearly impossible.
    - According to the PAD of the follow-on project, about 6,905 person-days of employment were generated by the upgrading works in Agatare (ICR, footnote 10) with 28 percent carried out by women. The Task Team clarified that the creation of jobs was an indirect outcome of the upgrading works and no targets were set.
    - An impact assessment of the phase 1 roads and drainage investments in the secondary cities reported 55,603 off-farm jobs were created in 2019–2020 – a portion of which was attributed to the new businesses created because of the rehabilitated and constructed urban roads.
    - Storm drains reduced flooding in urban areas through reduced rainwater runoff, increased storm water retention in upstream catchment areas, and reduced accumulation of water in streets and road intersections.

Overall, the efficacy of the project to achieve this objective is rated Substantial with moderate shortcomings. The target values of the outcome indicators were exceeded although one outcome indicator was an output rather than an outcome. Other important indicators associated, for example, with reliability, quality, and service delivery standards were not part of the ToC but efforts were made to provide additional evidence, albeit anecdotal. These outcomes were not monitored as part of the ToC but output level achievements could plausibly lead to the outcomes to support the substantial achievement of the objective with moderate shortcomings.

Rating
Substantial

OBJECTIVE 2

Objective
To enhance urban management in selected urban centers of the Participating Districts.

Rationale
Theory of Change: Inputs consisted of training and advisory services to build district capacity in urban and project management. **Outputs** from these inputs were the number of participants, reports, planning tools such as Geographic Information System (GIS), and strategies. These outputs were to lead to **outcomes** at the district level that would create an enabling environment for districts to undertake local economic development. The outcome indicator - the increase in the budget allocated for maintenance of the urban infrastructure assets - was, first, more of an input rather than an outcome, and it is not clear how the project activities were to lead to the increased allocation for maintenance. Second, this sole indicator was not sufficient to show enhanced urban management capacity that could be reflected in improved planning processes, coordination, alignment of expenditures (beyond O&M allocation), or resource mobilization as potential outcomes of the interventions~~.~~ The ToC made the critical assumption that if the capacity building activities could be carried out effectively, then the PDO would have a greater likelihood of being achieved. At implementation, this assumption did not materialize and limited the achievement of this objective.

Outputs:

- District system for tracking business activity was operational, as targeted. This system reports on employment and business establishment activities in each of the six secondary cities were integrated to LODA's Monitoring and Evaluation Information System (MEIS). District staff were trained in the use of the system.
- All 6 districts (target 4, target exceeded) use GIS as key planning tool. Each district government have access to MININFRA's geodata portal. District staff were trained to use GIS in investment planning. Annual procedures were in place to issue construction and building permits, partitioning plots, creating development master plans, and land transfers.
- The following reports were completed, as targeted:
    - A report on district revenue and expenditure management strategies for the 6 secondary cities was completed. LODA prepared a roadmap to guide the roll-out of the strategies that would enhance own-source revenue generation and implement good financial reporting practices.
    - Capacity needs assessment and capacity building plans for the six secondary cities were completed. The assessments identified the local economic development challenges and opportunities faced by the district units in charge of: (i) business development and employment, (ii) planning, monitoring and evaluation (M&E), and (iii) One-Stop Centers. The capacity building plans were to be implemented over a three-year period (2020–2023) and included recommendations for formal coordination and supervisory roles across institutions and at the central and district levels, achieving districts' performance contracts (Imihigo) and augmenting staffing capacity through training and on-the-job coaching.

- Six city brand and marketing strategies were developed or updated. These strategies were aligned with their' Local Economic Development and District Development Strategies. The updated strategies assessed and identified' economic potentials and comparative advantage of each district. The district councils endorsed the strategies in 2017 and integrated these into the' economic transformation pillar of each District Development Strategies (2018–2024). The six city branding and marketing strategies were endorsed by district leaders to attract private sector development.
- Guidelines for a National Urban Informal Settlements Upgrading Implementation Program (NUISUIP) were completed. A series of trainings of trainers was also conducted for policymakers, staff of Kigali and districts, and other interested government stakeholders.

- District infrastructure management system for road and drainage assets was **not** operational at closing and did not achieve the target. The indicator was not dropped because there was no restructuring. At the MTR, the German Development Bank (KfW) committed to update the existing LODA MEIS. The original budget for this activity was reallocated to other project activities. At closing, this activity was at procurement stage.

Outcome: According to the ICR (paragraph 23), the objective was achieved based on one indicator, that was an input rather than an outcome at that. The districts reported a 15.4 percent increase (baseline 6.5 percent, target 10 percent, target exceeded) in the share of districts' budget expenditures for asset maintenance. The PAD noted the baseline to be 3.46 but the ICR recalculated the baseline (ICR, Annex 1). In addition, staff trained in GIS used the system to define sites for land recovery, determine applicable property taxes, planning of schools, plot servicing, cadastral planning and parcel maintenance creating a base map to inform urban policy decisions, land dispute resolution, surveying, and suitability of land use.

- The NUISUIP guidelines provided a systematic approach to upgrading informal settlements in Rwanda. The Rwanda Housing Authority adopted a policy framework with implementation guidelines to roll-out the NUISUIP following the government's 2018 National Informal Settlements Upgrading Strategy. This outcome was reported but not associated with an outcome indicator. Key policy recommendations in this guideline informed the prioritization of informal settlements to be upgraded under the follow-on RUDP 2.
- National and district staff validated the study outlining the revenue and expenditure management strategy for districts. LODA prepared a roadmap to guide the roll-out of the strategies to enhance own-source revenue generation and implement good financial reporting practices. At project close, no further outcome was reported regarding district resource mobilization and expenditures.

Overall, the efficacy of the project to achieve this objective is rated Modest. The target value of the sole outcome indicator was indeed exceeded but this indicator alone was insufficient to reflect the potential outcomes from the capacity building interventions delivered by the project. For example, impact of the plans or the use of GIS (such as land area covered, potential revenue from the land classification, land disputes resolved, or resulting increase in revenues) or increase in local revenue were unreported although the ICR cited the latter as part of Other Unintended Outcomes and Impacts (ICR, paragraph 54). The results framework lacked relevant indicators to measure achievement of the objective, hence lacked evidence at closing. However, the Bank task team reported that the NUISUIP guidelines and roadmap for resource mobilization and good financial reporting practices were being implemented but with insufficient time to report on outcomes. <u>In addition, the Bank team confirmed that the process of appropriating O&M in the district</u>

government budgets plus the adoption of other targeted TA outputs provided a modest level of outcome from the project interventions even as the indicator itself was limited.

Rating
Modest

OVERALL EFFICACY

Rationale
Overall, the efficacy of the project to achieve the first objective is rated substantial with moderate shortcomings. Efforts were made to capture outcomes that better reflected the development impact of the project interventions but given the lack of indicators, data were not provided to support the anecdotal evidence. The second objective is rated Modest due to a lack of indicators, and hence evidence of the outcomes from the capacity building interventions, However, the plans and roadmaps produced by the project are being implemented and with time, would report on the expected outcomes of the interventions. The overall efficacy of the project to achieve its objectives is rated substantial with moderate shortcomings.

Overall Efficacy Rating

Substantial

5. Efficiency

Economic and Financial Efficiency: At appraisal, a cost-benefit analysis was conducted for the urban infrastructure investments in the six secondary cities and in the upgraded area settlements. A 5 percent discount rate was used. Sensitivity analysis used 3 scenarios - a 10 percent increase in costs; a 10 percent decrease in benefits; and a combined 10 percent increase in costs with a 10 percent decrease in benefits. Analysis concluded that the investments were economically viable.

For the roads and drainage investments that had been identified at that time, which was about 83 percent of the project funds, NPV was at US$37.92 million, and internal rates of return (IRR) between 14–20 percent. Sensitivity analysis concluded that the roads and drainage investments in the six secondary cities were more sensitive to a reduction in benefits compared to an increase in costs with IRRs estimated at 16.9 percent, 16.9 percent, and 15.9 percent for each of the scenarios.

For the investments in streetlights in the upgraded area of the unplanned settlements, the NPV was US$10.27 million and IRR was at 14 percent. Sensitivity analysis was also conducted using the same scenarios for the roads and drainage investments, and concluded the same finding of sensitivity with the IRR s ranging from 13.4 percent, 13.6 percent, and 12.5 percent, respectively.(PAD, paragraph 42).

Benefits were from connectivity within the six cities and the upgraded area of Kigali, improved drainage systems, and off-farm jobs created. Other benefits included efficiency gains from improved urban management, improved living conditions of residents, and health benefits from reduced incidence of floods due to improved drainage systems.(PAD, paragraph 41).

At closing, an economic efficiency analysis was carried out, replicating the method used at appraisal, including the use of a 5 percent discount rate. However, at closing, economic analysis covered all investments under the project. In the unplanned settlements, investments included roads, drainage systems, and streetlights. The NPV for the roads and drainage investments in the 6 districts was US$195.0 million, the IRR was 18.3 percent. The NPV for the roads and drainage investments in the upgraded settlements was US$20.8 million and IRR was 14.5 percent.

Administrative and Operational Efficiency: The project was implemented as planned although with a few initial delays, mostly due to contracting and procurement issues (see Section 10 Other Issues below). These included for example, poor quality of detailed engineering designs for Phase 1 infrastructure investments (ICR, paragraph 57) and the cancellation of the Mobile Implementation and Capacity Support Team (ICR, paragraph 58). The implementing entity found itself having to fill gaps left by the Mobile Team. Two floater engineers were recruited in November 2019 to help. Implementing agencies lacked clarity of roles and responsibilities. MININFRA was the overall coordinator. LODA provided day to day project management. However, LODA did not report to MININFRA. The MTR addressed weak interagency coordination (see Section 9 M&E Design below). Capacity gaps persisted throughout implementation with a full staff complement achieved by the last 16 months of the project. However, the implementation period was not extended. There were no restructurings, The credit was disbursed mostly as planned,

All activities except for those affected by an earthquake in Rubavu were completed by project close. The project generated savings of approximately US$4.56 million due to the appreciation of SDR to the US dollar and unspent funds due to the suspension of works to the volcano-affected works in Rubavu. Savings were allocated among the infrastructure activities. Covid-19 delayed the handover of works in the secondary cities. Lockdowns and the volcanic eruption in the DRC delayed the completion of some works. LODA committed to complete these with safeguards compliance carried out under the follow-on RUDP 2 (ICR, paragraph 65).

Overall, the project achieved substantial efficiency. The credit and savings realized from foreign exchange gains were almost fully disbursed within the original implementation period. The economic efficiency analysis showed that the project was economically viable. Efficiency is rated Substantial.

Efficiency Rating

Substantial

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	✓	14.00	83.00 ☐ Not Applicable

ICR Estimate	✓	18.30	76.00 ☐ Not Applicable

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

6. Outcome

The relevance of objective is rated Substantial. The efficacy of the project to achieve the first objective is rated substantial with moderate shortcomings. The target value of the defined outcome indicators was exceeded, and additional efforts were made to identify other outcomes but these were anecdotal and not supported by data. The second objective is rated modest because the indicator did not sufficiently reflect the development impact of the interventions. The overall efficacy is rated substantial with moderate shortcomings because other sources of evidence were offered to support the outcomes. Efficiency is rated Substantial. The overall outcome is rated Moderately Satisfactory.

a. Outcome Rating

Moderately Satisfactory

7. Risk to Development Outcome

The following pose risks to development outcomes:

- **Institutional risk.** Districts had low technical and managerial capacity when the project started and no prior experience implementing World Bank-financed projects. The project strengthened their infrastructure management capacity in planning, design, procurement, and supervision. However, staffing gaps and high turnover rates experienced during implementation may persist after the project closed. This risk is low. The design of the follow-on project, RUDP 2 mitigated this risk by adopting lessons from this operation to sustain capacity built.
- **Financial risk**: The infrastructure assets completed under the project require annual resources for operations and maintenance (O&M). In this project, the districts increased their O&M budget allocation in their budgets. This is a low risk. Design of the follow-on project, RUDP 2, also reduced this risk evident in the activities that would support the objective to strengthen integrated urban planning and management in the City of Kigali and the six secondary cities of Rwanda.
- **Risk from natural hazards.** This risk remains high. In this project, the remaining works in Rubavu could not be completed during the project period because of disruptions caused by a volcanic eruption from nearby DRC. Rwandan cities require further studies and investments to increase their resilience, particularly to earthquakes, flooding and landslides. This risk is high but mitigated by the follow-on project, RUDP 2, which was approved in October 2020. RUDP 2 would enhance resilience, manage risks from floods, reduce the risks of urban flooding, restore wetlands, and reduce risks from water scarcity. Green and grey investments were to be included to mitigate erosion, and reduce and manage storm water runoff along settlements.

8. Assessment of Bank Performance

a. Quality-at-Entry

The project design was informed by lessons from the Bank-financed urban development projects that were applicable to the country's conditions, level of economic development, and capacity constraints. These included: infrastructure investments for impact accompanied by "soft" TA to local governments and providing performance incentives to expand infrastructure. The design for the unplanned settlements was informed by experience in Africa (Dar es Salaam Metropolitan Development Project) and in East Asia (Vietnam Urban Upgrading Project). Lessons from those operations adopted in design included minimizing resettlement, by using '"once only'' disruption in packaging works, avoiding rising costs by adopting functional, flexible standards; and enjoining the community to prioritize, implement, and sustain investments by including cost recovery and O&M arrangements in Community Upgrading Plans. Other lessons included avoiding unsuitable, unsafe, or hazardous land; and assigning works to be implemented by communities and by contractors (PAD, paragraph 29). An earlier Bank-financed urban sector project in Rwanda institutionalized performance incentives to address urban inequality (PAD, paragraph 28).This project built on the outcome of the Urban Infrastructure and City Management Project (UICMP) financed as an Adaptable Program Loan (APL) and completed in December 2009. The UICMP increased access to urban infrastructure and services in Kigali and two secondary cities (Butare and Ruhenger, later becoming Huye and Musanze). Project design replicated the coverage, components, and the PDOs including the insufficient outcome indicators.

Capacity assessment at preparation identified substantial risks from limited district-level capacity in fiduciary, procurement, environmental, and social safeguards aspects (PAD, paragraph 36). The Bank team trained the staff of LODA and the districts on the Bank's policies, procedures, and guidelines (PAD, paragraph 40). A Mobile Implementation and Capacity Support Team (MICST) was to provide on-the-job training.

Design called for a two phased approach to the infrastructure investments. infrastructure investments would be prioritized through community participation, while strengthening the implementation capacity of district- and national-level entities. Feasibility studies and design of the initial set of investments included sustainability mechanisms and mitigation measures to minimize disturbance. Phase 2 would then proceed with more complex initiatives. The Agatare settlement upgrading was to demonstrate community-based urban regeneration in phase 1 and then scaled up in the secondary cities in phase 2.

The project design considered the implementation capacity risk and limited the scope to select urban centers in the participating districts. Some capacity assistance activities would be dropped (see Supervision below). The project risks were appropriately rated as substantial because of lack of familiarity with Bank policies and procedures by the districts. The mitigation measure (Mobile Team) proved to be insufficient to address capacity risk. Stakeholder risk was not mentioned even as design called for community participation. There were shortcoming in the M&E design.

Quality-at-Entry Rating

Moderately Satisfactory

b. Quality of supervision

The Bank team conducted 12 supervision missions over the 5-year implementation period. Smaller technical missions with experts were held in between these supervision missions as well as video and audio conferences. Transition among three Task Team and two co-Task Team Leaders (TTLs) over the life of the project proved seamless because they were all part of the original project team. One TTL and one co-TTL were based in Nairobi while another co-TTL was in Kigali since 2019. The Bank team addressed the procurement delays (ICR, paragraph 57) through field presence, frequent discussions, and site visits. Following the September 2018 Mid-Term Review, the Bank team implemented course correction including holding regular discussions on data collection, aggregation methodology, and issued a guidance note for M&E and updating the operations manual but not the lack of important indicators in the results framework to measure the development outcomes from the project interventions. The Bank team initiated the Environmental and Social Incidents Response Toolkit when fatalities were reported in November 2020 and July 2021 (see Section 10 Other Issues below). Toward closing, the Bank team conducted weekly progress meetings against a detailed work schedule to overcome implementation challenges.

Overall, Bank team performance at supervision is rated Moderately Satisfactory. The drawback was in the lack of outcome indicators that were not adequately addressed at entry or at supervision. The outcome indicators did not reflect possible impact of the project interventions (see Section 9 M&E below). Efforts by the Bank Team during supervision to ensure that the project was completed at closing as originally planned and almost disbursing all project funds, including savings from exchange rate gains support the rating of Moderately Satisfactory.

The overall assessment of Bank performance at entry and at supervision is rated Moderately Satisfactory.

Quality of Supervision Rating

Moderately Satisfactory

Overall Bank Performance Rating

Moderately Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

According to the PAD (paragraph 33), the M&E design would follow the existing government system to track the Economic Development and Poverty Reduction Strategy (EDPRS II) for the period 2013–2018. That M&E system would monitor progress against target indicators in the results framework (PAD, Annex 1). Feasibility studies established baseline data. Periodic surveys were to be conducted at the midterm review (MTR) and at closing. Technical and value-for-money audits to verify technical quality of infrastructure were to be carried out. Data generated was to be shared widely among all project stakeholders.

Three shortcomings in the results framework were noted. One, the number of beneficiaries was a reasonable indicator to achieve access but other important indicators were missed. Two, the outcome indicator for the second objective was more of an input than an outcome. Three, an intermediate outcome indicator "asset management system for road and drainage was operational" was not dropped even after the German Development Bank (KfW) agreed to finance this instead. The Bank team clarified that this indicator was not dropped because the KfW-assisted activity was integral to improving the capacity of the cities to manage urban infrastructure. Upon completion, the system is expected to contribute to achieving the project's second objective. Some weaknesses in M&E design were addressed at implementation (see below).

b. M&E Implementation

Local Administrative Entities Development Agency (LODA) implemented the M&E system. The Single Project Implementation Unit (SPIU) at LODA implemented the monitoring of the basic infrastructure and upgrading of the unplanned settlements, project management, and building competitive cities and managing urban infrastructure. The Project Coordination Unit (PCU) at MININFRA implemented the monitoring of the GIS-based tools and scaling up urban upgrading (ICR, paragraph 11). The project began reporting against indicators of the results framework by the end of 2017, a year after the project was approved. Initial district level reports had inconsistent data sources and non-uniform method of calculating progress. Following the MTR, an M&E guidance note, together with full-time M&E specialists at MININFRA PCU and LODA SPIU to support the districts, improved the quality of M&E progress reports in the final two years of implementation. The indicator - increase in share of O&M in district budgets - lacked baseline data but was recalculated at closing for comparability and consistency. The frequency of reporting moved from semiannual to quarterly. The M&E team regularly visited the project sites to document progress of works. However, there were no reported periodic surveys at MTR, at closing or technical or value-for-money audits that were carried out.

c. M&E Utilization

The M&E data informed the discussions of performance with the government. Implementation challenges and corrective measures used M&E data. Initially, M&E reporting was acknowledged to be fragmented and did not flag issues in a timely manner. M&E reports updated relevant line ministries with critical coordination issues for their action.

Overall, the M&E design is rated Modest. The MTR and subsequent missions improved data collection methodology and the M&E system implementation but retained the lack of other indicators to capture the development outcomes of the project interventions.

M&E Quality Rating

Modest

10. Other Issues

a. Safeguards

Environmental and Social Safeguards: The project was classified as "Category B" according to the Bank's environmental and safeguards policies. The following policies were triggered: Environmental Assessment (OP/BP 4.01), Natural Habitats (OP 4.04), and Physical Cultural Resources (OP 4.11). Project activities were noted to have limited, reversible, small- to medium-scale impacts. Several secondary cities were located near lakes, rivers, and wetlands, and may require specific design and/or mitigation measures to avoid or minimize negative impacts on habitats. The project sites themselves were not located near protected areas or parks. Some project investments were to involve significant civil works, and would include procedures to manage chance finds. No known physical cultural resources were identified at the project sites. An Environmental Management Framework was prepared to cover all activities to be financed. Environmental Impact Assessments (EIAs) were carried out for specific infrastructure investments specified for phase 1. Environmental and Social Management Plans (ESMPs) covering road and drainage rehabilitation works were prepared for the six secondary cities and Kigali. These ESMPs were included in bidding documents. The Environmental and Social Management Framework (ESMF), ESMPs, and updated Environmental and Social Impact Assessment (ESIA) were publicly disclosed in Rwanda and in the Bank's InfoShop on January 12, 2016. The ESIA has been cleared and redisclosed in Rwanda and the Bank's InfoShop on January 28, 2016. The project complied with all safeguards (ICR, paragraph 70) with some reported shortcomings.

Social safeguards. The first year pipeline investments under the first phase required ESMPs and Resettlement Action Plans (RAPs) or Abbreviated Resettlement Action Plans (or ARAPs) in Musanze and Nyarugenge District. A Resettlement Policy Framework (RPF) and an ESMF covered social aspects for the urban infrastructure investments to be identified. The investments to be selected were to have the least and/or minimal expropriation of land and displacement of communities, businesses, and services. Flexibility in construction standards and community participation in planning, implementing, and maintaining neighborhood improvements were to be adopted. All social safeguards documents—the RPF, ARAPs, and ESMF—were disclosed in the country through MININFRA's website (http://www.mininfra.gov.rw) and at the Bank's InfoShop on January 12, 2016 (PAD, paragraph 39).

Involuntary displacement and resettlement affected 26 households in Musanze City, 34 households in Nyargunge District, and approximately 255 households overall. The district governments compensated and implemented safeguards compliance. The RPF and the ESMF included a Grievance Redress Mechanism (GRM) to address community level concerns in planning, preparing, and implementing sub-projects. Initial implementation was delayed by 10 months due to time taken by contractors to draw up Contractors' Environment and Social Management Plans (C-ESMPs), and the completion and implementation of abbreviated RAPs (ARAPs) (ICR, paragraph 57). Kigali adopted design changes for its roads and expropriation guidelines increased the number of affected properties (from 289 to 541 properties) and the scale of involuntary resettlement. A full RAP was prepared. The by Kigali budget for compensation was now insufficient to cover all Project Affected Persons (PAPs). Estimates of the final cost of compensation went from US$1.6 million at feasibility study stage to US$2.6 million at detailed engineering design stage to over US$3.1 million with the increased value of expropriated land and property. To minimize negative impacts, Kigali used the flexible planning standards for roads rights-of-way to resettle PAPs onsite or nearby and section by section handover to compensate PAPs in the least complex areas with the least costly involuntary resettlement. This approach expedited involuntary resettlement and allowed civil works to commence.

Compliance with occupational health and safety (OHS) measures was reported as inadequate. Three accidents (two severe and one serious) took place within an 18-month span. The first, on February 21, 2020 in Nyarugenge District (Agatare settlement), an earth slope collapsed during the construction of a retaining wall. One worker was seriously injured and was unable to work for almost a year. The second, on November 1, 2020 in Nyagatare District, a fatal traffic accident killed a person and injured four others. The third, on July 27, 2021, a contractor-owned water tanker hit and killed one of its own workers. All incidents were reported to the Bank. These incidents demonstrated a need to enforce OHS management and supervision, especially road and community safety, transportation of materials and workers and contractors' supervision. Full investigations and corrective action plans were prepared. Bank supervision was ongoing at closing until the cases were resolved, and workers and their families duly compensated, as confirmed by the Task Team.

b. Fiduciary Compliance

Financial Management: According to the ICR, the project complied with the Bank's financial management requirements (ICR, paragraph 73). Functional responsibilities were adequately segregated. Internal control procedures were in place. At MTR, the 14 percent vacancy rate in LODA's and the districts' financial management positions indicated capacity gaps. By January 2020, 16 months until closing, key financial management staff were in place (ICR, paragraph 62). There were no outstanding fiduciary issues. Audit reports had unqualified opinions. All project activities, including goods and works delivered were completed on time. At closing, the project had disbursed almost 95 percent of funds.

Procurement: At appraisal, an 18-month procurement plan included measures to address the weak procurement capacity at the national (MININFRA, LODA), local, and district levels. However, an unrealistic timeframe for completion of procurement activities and persistent capacity constraints resulted in delays. Other factors contributed to procurement delays such as poor quality of contract documents, unrealistic cost estimates, complaints, changes in the scope of service or works, unclear delineation of who grants variation orders among districts, the CSCs, and LODA, and slow turnaround in transaction with the Bank. Delays were also experienced in completing engineering designs, Contractors' Environment and Social Management Plans (C-ESMPs), hiring of construction supervision firms, and implementing abbreviated RAPs (ARAPs). Cost increases led to dropping originally planned tertiary infrastructure that Kigali agreed to finance in 2020 (ICR, paragraph 60). Core LODA staff, on a part-time basis, filled the capacity gap brought about by staff turnover (ICR, paragraph 62). Corrective measures were implemented by January 2020, with 16 months left until project close. Procurement performance improved as staff were in place at MINIFRA and the government's Kigali Urban Upgrading Team. Future projects may continue to be challenged by procurement capacity constraints.

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	Satisfactory	Moderately Satisfactory	Overall efficacy is rated substantial with moderate shortcomings. With substantial relevance and efficiency, the overall outcome rating becomes Moderately Satisfactory.
Bank Performance	Satisfactory	Moderately Satisfactory	Shortcomings in quality at entry and supervision.
Quality of M&E	Substantial	Modest	Lack of outcome indicators to capture the project development results.
Quality of ICR	---	Modest	

12. Lessons

The ICR presented eight lessons for task teams to consider in designing future similar projects. Some of these are below, slightly modified:

- **Consistent application of urban upgrading principles optimizes impact.** In this project, the upgrading of the unplanned settlements in Agatare was to be a model for other urban upgrading in Rwanda. Living conditions were improved with minimal resettlement or disruption in services. The following upgrading principles were showcased: (i) onsite upgrading with minimal relocation; (ii) community inputs to investment decisions; (iii) use of flexible "functional standards"; (iv) standardizing cost guidelines to optimize limited resources, such as establishing floors or ceilings for cost per hectare or cost per household; and (v) using "area-based" packaging of network infrastructure for optimal impact. These principles were incorporated in the design of the follow-on RUDP 2.
- **Community participation in the project cycle - from start to implementation - fosters sustainability.** In this project, the community participated only at preparation. In the follow-on RUDP 2, each of the settlements created community upgrading committees to participate in the planning, design, implementation, and project oversight of upgrading activities. Forming dedicated focus groups consisting of women and other vulnerable groups facilitates institutional mechanisms for gender-inclusive and equitable investments and helps coordinate social safety net responses.
- **Making government resources available as soon as Project Affected Persons (PAP) are identified helps avoid implementation delays**. In this project, compensating PAPs was identified as a critical bottleneck in implementing works in Agatare settlement. Establishing compensation budgets and releasing payments to PAPs slowed down the handover of construction sites to contractors. The use of flexible infrastructure standards helped minimize resettlement, and although still substantial, limited the size of compensation packages. In the follow-on RUDP 2, the government allocated US$15 million in the annual budgets of the implementing agencies to finance resettlement and compensation costs.
- **Integrating flood risk management in upgrading enhances resilience and mitigates the impacts of climate change.** In this project, urban upgrading financed the construction of

roads and drainage. Storm water runoff and erosion downstream could intensify without a drainage system in place, increasing flood risk and wetland deterioration. Household in the city’s hilly terrain residing in the unplanned settlements are vulnerable to the impacts of urban flooding. Flood management would increase infiltration capacity, retain storm water, and reduce the speed of storm water runoff. Flood management could integrate gray infrastructure with nature-based solutions or green infrastructure. These green infrastructure interventions could provide social, recreational, economic, and environmental benefits to residents (see ICR, Section II E Other Outcomes and Impacts).

- **Clarifying functions of implementing agencies helps enhance coordination**. In this project, MININFRA had the overall project coordination role. The LODA SPIU carried out the day to day function but LODA did not report to and was not accountable to MININFRA. The lack of clarity in the roles and responsibilities between the MININFRA PCU and LODA SPIU were reflected in the poor quality of early project monitoring reports Persistent project management capacity gaps also showed this unclear roles carried out by the MININFRA PCU and the LODA SPIU. Future operations will benefit from assigning clear functions to each participating agency.
- **Attracting and retaining quality staff are hallmarks of successful implementation.** In this project, factors that contributed to delayed hiring and retaining staff were: (i) staff were hired with fixed-term contract using cumbersome government procedures; (ii) they start after a project was approved or made effective; (iii) the government over assigns staff duties; (iv) a limited pool of talent with the requisite technical skills and project management experience; and (v) qualified candidates are not attracted to short term (one year) contracts. Future urban operations may consider various measures such as three-year contracts with an initial 6–12 month probationary period; improving remuneration benefits; and collaborating with local schools and universities in training programs to increase the talent pool.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR provided a detailed overview of the operation. Various parts of the report were adequately linked and logically integrated. The section on the key factors that affected implementation highlighted the impact of the low starting capacity of the various agencies and made the implementation challenges understandable. The annexes, particularly Annex 4, provided helpful clarifications to justify the efficiency assessment. The section on other outcomes filled the gap from missing indicators on the development impact of the project interventions. Lessons were based on the project experience.

The ICR was internally consistent and mostly followed OPCS guidelines except in four areas - one, the ICR was not sufficiently outcome-oriented and the ratings were based on outputs or intermediate outcomes, whereas the guidelines indicate that the PDOs (and their measurement) should be keyed to final development outcomes; two, the lack of candid assessment of Bank performance to sufficiently identify the indicators that would assess the outcomes; three, weaknesses in the theory of change and the deficiencies in the quality of evidence; and four, the limited quality of analysis. With these shortcomings, the quality of the ICR is rated Modest.

a. Quality of ICR Rating

Modest