

The Kingdom of Morocco

FY2020 Ex-Post Evaluation Report of

Japanese ODA Loan

“Urban Areas Living Environment Improvement Project”

External Evaluator: Kenichi Inazawa, Octavia Japan, Co., Ltd.

## 0. Summary

The objective of this project was to improve the access to basic social infrastructure (water supply, sewerage, electricity, road) services for unsanitary areas in regional cities near the Rabat metropolitan area. The government of Morocco formulated the *National Development Initiative* and the *Cities without Slums Program* (Le programme “Villes sans bidonvilles”: hereinafter referred to as the “VSB Program”) and advocated the need to improve access to the basic infrastructure social services for vulnerable groups (poor, unsanitary housing residents, etc.) and to reduce poverty. While there is a strong need to provide and improve these services to the increasing number of poor households, it is in line with the assistance policy of Japan; therefore, the relevance is high. Regarding efficiency, the project cost significantly exceeded the initial plan, when comparing the planned amount and the actual amount by emphasizing the relevance of the initial financial plan including the yen loan. The project period was significantly longer than the initial plan because it took time to complete the procedures for changing the target site to the Jnane district, reviewing the land acquisition plan, and the re-implementation and approval of the Environmental Impact Assessment (hereinafter referred to as “EIA”); therefore, the efficiency is low. As for the quantitative effect indicators, verifying the effectiveness and impact after the project target area was changed to the Jnane district, targets have been achieved in terms of the household electrification ratio, the percentage of water supplied population, the percentage of the sewage treated population, and the percentage of legal possession of land. Considering the progress in housing construction, the fact that residents including poor households are using and benefiting from the water supply, sewerage and electric power services, and the fact that they are accessing schools and commercial facilities within the areas using the developed roads, it can be said that this project is contributing to the improvement in the living environment of the residents; and therefore, the effectiveness and impacts are considered to be high. There are no major concerns in the institutional/organizational, technical, financial aspects and the status of operation and maintenance of the Kenitra City Public Corporation (La Régie Autonome de Kenitra; hereinafter referred to as “RAK”) and Kenitra Commune (local government), etc., responsible for the operation and maintenance of the

developed infrastructure facilities. Therefore, the sustainability is judged to be high.

In light of the above, this project is evaluated to be satisfactory.

## 1. Project Description



Residential area constructed after residential land development (Jnane area, the same applies below)



Developed substation equipment

### 1.1 Background

Since the 1950s, the government of Morocco has taken measures against the expansion of unsanitary residential areas, which is mainly caused by population concentration in urban areas. However, due to a range of factors, such as insufficient financial resources, the lack of a public financial system, rising land prices, the inadequate involvement of local governments, a lack of coordination among government agencies, etc., effective and integrated measures were not taken. As a result, especially in the vicinity of big cities, unsanitary residential areas have spread, leading to housing shortages. In unsanitary residential areas near the capital, Rabat, water taps were limited, domestic wastewater and human waste permeated underground, and electricity supply was limited. Most of the roads were unpaved, and environmental and hygiene problems were becoming serious. Therefore, improving the living environment by developing basic infrastructure facilities (water supply, sewerage, electricity, roads) for unsanitary residential areas was an urgent task.

### 1.2 Project Outline

The objective of this project is to improve access to basic social services in regional cities around Rabat, the capital of Morocco, by installing basic infrastructure facilities (water supply, sewerage, electricity, roads) for unsanitary residential areas, thereby contributing to the

improvement of the living environment of residents in the target areas and the stimulation of local economies.

Loan Approved Amount / Disbursed Amount	5,537 million yen / 1,609 million yen
Exchange of Notes Date / Loan Agreement Signing Date	March 30, 2007 / March 30, 2007
Terms and Conditions	<p>[Water Supply, Sewerage, Consulting Service]  Interest Rate 0.75 %  Repayment Period 40 years  (Grace Period 10 years)  Conditions for Procurement: General Untied</p> <p>[Electricity, Road]  Interest Rate 1.50 %  Repayment Period 30 years  (Grace Period 10 years)  Conditions for Procurement: General Untied</p>
Borrower / Executing Agency	Holding Al Omrane (hereinafter referred to as “HAO”) / HAO
Project Completion	March 2021
Target Area	Jnane district (in the Ouled M’barek sector, Kenitra City)
Main Contractor(s) (Over 1 billion yen)	Swtrap Sarl (Morocco), Univers Bat (Morocco), Setrat (Morocco)
Main Consultant(s) (Over 100 million yen)	None (the HAO arranged it with its own funds)
Related Studies (Feasibility Studies, etc.)	Special Assistance for Project Formation (SAPROF), JICA, 2007
Related Projects	<p>[Other International Organizations, Aid Agencies, etc.]</p> <ul style="list-style-type: none"> <li>- “Living Environment Sector Development Policy Loan” (World Bank)</li> <li>- “Loan for Pillar Association Infrastructure Development” (European Investment Bank (EIB))</li> <li>- “Support for the Improvement of Unsanitary Residential Areas” (French Development Agency (AFD))</li> <li>- “Strengthening Local Governance, Including Fostering Social Workers to Strengthen Citizen Initiatives in Unsanitary Housing Measures” (United States Agency for International Development (USAID))</li> </ul>

## 2. Outline of the Evaluation Study

### 2.1 External Evaluator

Kenichi Inazawa, Octavia Japan, Co., Ltd.

### 2.2 Duration of Evaluation Study

This ex-post evaluation study was conducted with the following schedule.

Duration of the Study: January 2021–February 2022

Duration of the Field Study: It was conducted remotely utilizing a local survey assistant.

(The remote field surveys by the local survey assistant were conducted in March–April, June–July, and September 2021)

### 2.3 Constraints during the Evaluation Study

Due to the spread of COVID-19, the external evaluator did not travel internationally. Utilizing the local survey assistant, the external evaluator carried out the site visits, collected information and data and conducted interviews with the relevant individuals remotely. The external evaluator analyzed the information collated, so as to carry out an evaluation and make a judgment. It was not possible to conduct an interview survey with the residents of the Jnane district as permission was not granted on the Moroccan side. Consequently, we could not interview directly to the beneficiaries directly regarding the access to basic social infrastructure services, living environment and poverty alleviation.

## 3. Results of the Evaluation (Overall Rating: B<sup>1</sup>)

### 3.1 Relevance (Rating: ③<sup>2</sup>)

#### 3.1.1 Consistency with the Development Plan of Morocco

Prior to the start of this project, the Ministry of Housing and Urban Planning, which has jurisdiction over unsanitary residential areas, formulated the *VSB Program* in 2004, with the aim to improve unsanitary residential areas near major cities. In addition, His Majesty King Mohammed VI announced the *National Initiative for Human Development* (INDH) in 2005, which aimed to improve access to basic social services (health, education, etc.), through support for income creation activities and the development of facilities such as civic halls for the socially vulnerable in regional and urban areas (the poor, those living in unsanitary residential

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<sup>1</sup> A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

<sup>2</sup> ③: High, ②: Fair, ①: Low

areas, etc.), linking it to the reduction of poverty, which was set as the objective of national policy.

As of the time of the ex-post evaluation, the government of Morocco has formulated the *Five-Year Government Program (2017–2021)* and set goals such as stable economic growth, unemployment rate control, poverty reduction, the correction of social disparities through local development, and the promotion of investment. While the government had initially set 2010 as a target year for the previously mentioned *VSB Program*, working toward improving unsanitary residential areas, it is still ongoing at the time of the ex-post evaluation. Although it was declared that 59 of the 85 unsanitary residential areas in the country were eradicated by the second half of 2020, the need to provide basic social infrastructure services and develop housing is still recognized in 26 cities.

Based on the above, before this project began and at the time of the ex-post evaluation, policies and measures aimed at improving unsanitary residential areas are regarded as important in Morocco, and therefore, this project is recognized as being consistent with Morocco's development policies and measures.

### 3.1.2 Consistency with the Development Needs of Morocco

Before the start of this project, in the Sidi Taibi district located near the capital Rabat, the entire population relied on drinking water from a limited number of faucets. Regarding sewerage facilities, neither sewage pipes nor rainwater/drainage pipes were installed, and domestic wastewater and human waste permeated underground. Most of the roads were unpaved and there was no electricity supply. There were environmental and hygiene problems such as chronic flooding on roads and the discharge of domestic wastewater. Similarly, the Ouled M'barek district in Kenitra City, located near Rabat, was a slum formed by the unapproved construction and settlement of barracks by immigrants from other areas in the city's common land. The situation was similar to that of the Sidi Taibi district, and there were environmental and hygiene problems.

At the time of the ex-post evaluation, the Ministry of National Territory Planning, Land Planning, Housing and City Policy of Morocco points out the necessity of taking drastic measures, including revisions, to accelerate the progress of the above-mentioned *VSB Program* after 2020 and to implement and promote effective solutions. This is because while there were about 270,000 poor households at the start of the *VSB Program* (in 2004), the number had increased to about 450,000 households by the end of 2019. Another factor is that there is an

increasing need for the improvement of basic social infrastructure services for poor households, the diversification of housing provision through the entry of the private sector, and the livelihood support. As will be explained in 3.2.1 Project Outputs under Efficiency, the target site of this project was changed from the Sidi Taibi and Ouled M'barek districts to the Jnane district, where there is a significant need for housing development and associated basic infrastructure facilities (water supply, sewerage, electricity, roads, etc.) for poor households. The HAO, which is the executing agency of this project, and the RAK, which is responsible for the operation and maintenance, are responding to such a need by working on the development of the above infrastructure facilities, service provision and housing construction, etc.<sup>3</sup>

Based on the above, there was a high demand for the improvement of basic social infrastructure services and housing construction for poor households in Morocco before the start of this project and at the time of ex-post evaluation, and therefore this project is confirmed to be consistent with the development needs.

### 3.1.3 Consistency with Japan's ODA Policy

The Japanese Ministry of Foreign Affairs formulated the *Official Development Assistance (ODA) Country Data Book* (2002), referencing support for correcting the disparities between cities and regions as one of the priority sectors requiring assistance from Japan. In addition, JICA formulated the *Medium-Term Strategy for Overseas Economic Cooperation Operations* in April 2005, in which “building a foundation for sustainable growth” and “support for poverty reduction” were identified as priority areas. Furthermore, JICA formulated the *Country Assistance Policy for Morocco* in 2006, which referred to a sustainable comprehensive regional plan including urban environment improvement as a pillar for its support.

This project intended to improve the living environment of the poor by developing unsanitary residential areas as urban areas. As this is consistent with the priority support areas above, it is deemed consistent with Japan's assistance policy.

Based on the above, this project has been highly relevant to the country's development plan and development needs, as well as Japan's ODA policy. Therefore, its relevance is high.

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<sup>3</sup> In the Jnane area, apart from the development of basic infrastructure facilities by this project, development of the following facilities was confirmed during the field survey: housing, elementary and junior high schools, clinics, social sports centers, junior high schools, youth centers, sports stadiums, mosques (under construction as of first half of 2021), high schools (under construction), etc.

### 3.2 Efficiency (Rating: ①)

#### 3.2.1 Project Outputs

Table 1 shows the plan and actual outputs at the time of the ex-post evaluation. In addition, Figure 1 shows the flow chart depicting the changes in the project target areas.

Table 1: The Output Plan and Actual Results of This Project at the Time of Ex-Post Evaluation

Plan (at the time of appraisal: 2007)	Actual (at the time of the ex-post evaluation: 2021)
<p>[Sidi Taibi (near the capital Rabat), Ouled M'barek district (within the Ouled M'barek sector, Kenitra City)]</p> <p>1) Civil Engineering Work</p> <p>(1) Installation of water and sewage systems (installation of water pipes and drainpipes for rainwater and sewage): 39.3 km of water pipes, 23.9 km of drainpipes for rainwater and sewage</p> <p>(2) Installation of electricity distribution networks: 32.0 km</p> <p>(3) Construction, widening and asphaltting of roads: 11.0 km</p>	<p>[Jnane district (within the Ouled M'barek sector, Kenitra City)]</p> <p>1) Civil Engineering Work</p> <p>(1) Installation of water and sewage systems (installation of water pipes and drainpipes for rainwater and sewage): 67.9 km of water pipes, 87.2 km of drainpipes for rainwater and sewage (combined system), stormwater management pond and pumping facility</p> <p>(2) Installation of electricity distribution networks: 244.0 km</p> <p>(3) Construction, widening and asphaltting of roads: 5.5 km</p>
<p>2) Assistance for Local Residents</p> <p>(1) Provision of project information to the target residents of the project</p> <p>(2) Support for the resettlement procedures</p> <p>(3) Training for residents' organizations</p> <p>(4) Monitoring of the living environment of the relocated residents</p>	<p>2) Assistance for Local Residents</p> <p>The HAO implemented (1)–(4) listed on the left.</p>
<p>3) Consulting Services</p> <p>(1) Reviewing detailed design</p> <p>(2) Bid support</p> <p>(3) Construction supervision</p> <p>(4) Environmental monitoring</p>	<p>3) Consulting Services</p> <p>The HAO implemented (1)–(4) listed on the left by hiring consultants with its own funds.</p>

Source: Documents provided by JICA (at the time of appraisal), Project Completion Report and answers to the questionnaire (at the time of the ex-post evaluation)

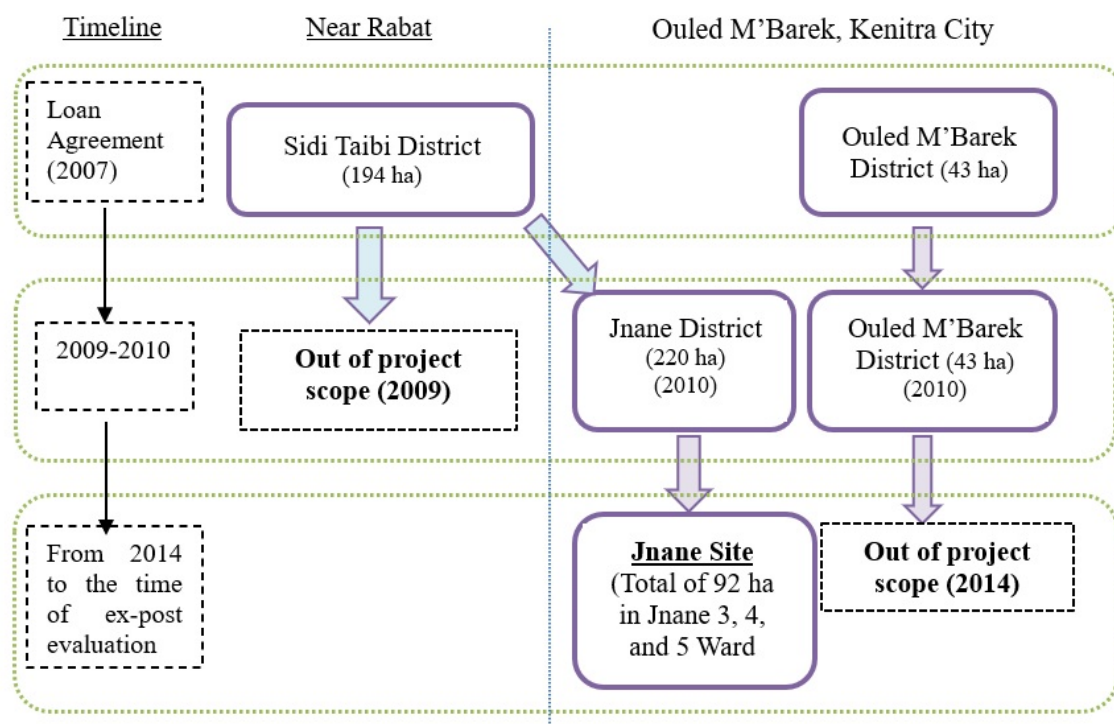


Figure 1: Transition of the project target areas (signing of loan agreement–ex-post evaluation)

Differences between the plan at the time of the appraisal and the actual outputs at the time of the ex-post evaluation, shown in Table 1, are analyzed below.

### 1) Civil Engineering Work

The initial plan was that basic infrastructure facilities would be developed in the Sidi Taibi district near the capital Rabat and in the Ouled M'barek district in the Ouled M'barek sector. However, after the start of the project, both sites were excluded from the project scope and changed to the third, fourth and fifth wards of Jnane (hereinafter referred to as the “Jnane site”) inside the Ouled M'barek sector. The details of the change will be explained in a) and b) below.

#### a) 2009–2014:

The HAO submitted a request to JICA for removing the originally planned Sidi Taibi district from the project target areas and changing the site to the Jnane district adjacent to the Ouled M'barek district. The Sidi Taibi district was removed because the project implementation body was transferred from the HAO to Sidi Taibi Commune (local government) and it became outside the jurisdiction of the HAO, following the policy change of the Moroccan central



government (a change due to the organization of the administrative structure<sup>4</sup>). In 2009, the two districts, the Ouled M'barek district (43 ha) and the Jnane district (220 ha), became the target areas of the project. It was expected that existing residents from other parts of the Ouled M'barek sector would relocate to the Jnane district. Over the period of 2012–2014, JICA received the draft EIA and land acquisition plan for the Jnane district from the HAO, conducted a field survey, and confirmed the contents and scale of the project plan, project cost, implementation structure, etc. On the other hand, the Moroccan side approved the EIA and completed the land acquisition between 2013 and 2014.

b) 2014–2015:

The land acquisition was delayed in the Ouled M'barek district (in the Ouled M'barek sector, Kenitra City). As the situation did not improve at all, the HAO requested JICA continue the project by changing the target area to the Jnane district.<sup>5</sup> JICA scrutinized the request, and considering that the Jnane district was an extension of the Ouled M'barek district and that it is located within the Ouled M'barek sector, Kenitra City, decided to continue this project in the Jnane district on the grounds that “it is not considered as a change in the project target area and does not conflict with the contents of the loan agreement and the provision policy.”<sup>6</sup>

Based on the above process, it was decided that this project would cover a total of 92 ha in the third, fourth and fifth wards of the Jnane district (total area of 220 ha) for the development of water and sewage facilities, electricity networks, the construction and expansion of roads, pavement of roads, support for resettlement, etc. Regarding these major changes, it may not have been easy at the time of the appraisal to anticipate changes in the political situation and unexpected factors after the start of the project. Nevertheless, one could argue that both the

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<sup>4</sup> One of the factors was that the HAO had a land ownership problem in this area, but the details were unknown.

<sup>5</sup> According to JICA's documents, at the beginning of the project, a method was planned (the drawer method) in which residents were gradually relocated within the Ouled M'barek district and the construction of basic infrastructure facilities was carried out on the vacant land. In fact, this method was extremely difficult for both the HAO and those engaged in the project (local governments, contractors hired for land maintenance, etc.) because: (1) with this method, the land was divided into small areas, and the infrastructure work was carried out on the vacant land while gradually relocating the residents, so the work had to be carried out in stages in a very small area, (2) it therefore took a long time to complete the construction of one slum area, and meanwhile some residents moved to this area, which made it difficult to secure temporary relocation sites for all the residents, (3) it has become clear that apart from the dense population in a small area hindering the construction work, construction itself affects the lives of the residents, and (4) some residents expressed opposition to the relocation. As a result, it was decided among those engaged in the project that it would be difficult to continue the project in this district. The reason why the drawer method was adopted was that there was no other suitable relocation site near the area at the time of initial planning. On the other hand, while utilizing the Jnane area was not expected due to local circumstances at the time of initial planning, it became a possibility and the momentum for continuing the project in the Jnane area increased among those engaged in the project; the HAO in particular showed its intention to actively proceed.

<sup>6</sup> Similarly, according to JICA's documents, strictly speaking, the decision was made based on the judgment that although there will be changes in terms of the project district, there will be no change in the project target sector and no impact on the loan agreement framework.

development assistance agency and the recipient country should have established a thorough system, whereby the progress of the project was envisaged, external factors and obstacles were shared, risks and problems responded to, and a cooperating system put in place.<sup>7</sup>

## 2) Consulting Service

During this project, a consultant was recruited after the start of the project and the service commenced. However, due to the above-mentioned reason, almost no work was carried out and the contract was canceled. On the other hand, the HAO recognized the need to hire consultants for work such as support for local residents; around the time of the project site change, the HAO recruited consultants with their own funds and conducted the detailed design review, bid support, construction supervision, environmental monitoring, etc. Funds and personnel were also allocated to the support for local residents, and activities were carried out.

### 3.2.2 Project Inputs

#### 3.2.2.1 Project Cost

The total project cost was planned to be 7,383 million yen (of which 5,537 million yen was to be covered by ODA loan) at the time of the appraisal. In reality, the actual total cost was 11,591 million yen (of which 1,609 million yen was an ODA loan) (approximately 157% of the initial plan). Due to the change in the project target area to the Jnane site, the project cost plan was also revised and calculated to be 13,188 million yen. Table 2 shows the initial project cost, the project cost after the plan change, and the actual amount. Comparing the project cost after the plan change (13,188 million yen) with the actual amount (11,591 million yen), one can say that the actual cost was within the plan. However, due to the impact of the change in the project site, the actual amount of the ODA loan (1,609 million yen) was less than the originally planned amount (5,537 million yen). This indicates that the Moroccan side used more funds of their own for the development of the basic infrastructure facilities (water supply, sewerage, drainage, roads, electricity).<sup>8</sup> Regarding the evaluation of project costs, considering that a comparison

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<sup>7</sup> Considering the fact that the project scope and the target area changed significantly, it can be said that there was a problem in the process approach of the project implementation. As will be explained in 3.2.2.1 Project Cost under Efficiency, while the utilization of the ODA loan did not progress, it can be said that there were no mistakes in the choices to be made and the approach to achieving the project objectives, considering that before and after the project implementation the needs for implementing the project remained unchanged, thereby contributing to the elimination of unsanitary residential areas and the improvement of the living environment.

<sup>8</sup> The loan agreement was not changed according to the project cost plan. The planned loan was 5,537 million yen, while the actual amount was 1,609 million yen, because according to the loan agreement, the loan execution deadline was set for 2015, and it became difficult to complete the construction of the basic infrastructure facilities within that deadline. One factor is that following the change in the project target site to the Jnane district, it took time for the Moroccan side to confirm the plan for land acquisition and to process the EIA approval, which delayed the start of the

with the actual amount must be made by focusing on the validity of the initial financial plan, including the ODA loan plan and the actual amount, the project cost and the actual amount were not necessarily efficient.

Table 2: Planned Project Cost and the Actual Amount

(Unit: million yen)

Planned Project Cost		Actual Amount
At the Time of the Loan Agreement (2007)	At the Time of the Plan Change (2014)	
7,383 (5,537)	13,188	11,591 (1,609)

Source: Documents provided by JICA, Project Completion Report

Note: The amounts in parentheses shown in the table indicate the ODA loan fund.

### 3.2.2.2 Project Period

Table 3 shows the initial plan and the actual project period. At the time of the appraisal, it was planned to be implemented from March 2007 to June 2014, for the duration of seven years and four months (88 months).<sup>9</sup> On the other hand, the actual period was from March 2007 to March 2021, for the duration of 14 years and one month (169 months). The actual project period was approximately 192% of the initial plan, which is a significant delay. This was because time was required for the project site change, review and procedure for the land acquisition plan, re-implementation and approval of the EIA. It was also because the construction commenced late due to the delay in the progress of the land acquisition. As explained in 3.2.1 Project Outputs, (1) selection of consultant was done, and (2) consulting services were started, but after that, the HAO decided to handle it with its own funds. (3) bidding was also continued with the support of the consultants hired by the HAO.

Table 3: Initial Plan and Actual Project Period

	Initial Plan	Actual
Entire Project	March 2007–June 2014 (88 months)	March 2007–March 2021 (169 months)
1) Selection of consultant	April 2007–February 2008	After March 2008–Before September 2010 <sup>10</sup> (Recruited using the HAO's own funds)

construction period. In other words, while it took time to redo the procedures, the loan execution deadline was approaching, and the opportunity to promote the ODA loan was lost.

<sup>9</sup> At the time of the examination, this project's completion was defined as "when the civil engineering work guarantee period was completed and the support for local residents was completed."

<sup>10</sup> The detailed selection period could not be identified. The selection period for the consultant who was recruited before the HAO hired their own consultants was April 2007–February 2008.

2) Consulting Services	March 2008–June 2013	October 2010–November 2015 <sup>11</sup> (Recruited using the HAO’s own funds)
3) Bidding	April 2007–May 2009	October 2010–Before May 2014 <sup>12</sup> (Implemented by the HAO)
4) Civil Engineering Work	September 2008–June 2014	- Water: March 2013–February 2020 (Completion of the warranty period is February 2021) - Sewerage: December 2012–February 2020 (Completion of the warranty period is February 2021) - Road: October 2012–February 2020 (Completion of the warranty period is February 2021) - Electricity: June 2014–March 2020 (Completion of the warranty period is <u>March 2021</u> )
5) Support for Local Residents	July 2007–June 2014	2014–2016 <sup>13</sup>

Source: Documents provided by JICA (initial plan), the Project Completion Report and answers to the questionnaire (actual)

### 3.2.3 Results of Calculations for Internal Rates of Return (Reference only)

At the time of the appraisal, the internal rate of return (FIRR) was calculated to be 6.1%, with the fee income, connection income and sales of residential lands from the use of basic social infrastructure services as “benefits” and the project cost and operation/maintenance expenses as “costs,” covering the Sidi Taibi and Ouled M’barek districts. In addition, the economic internal rate of return (EIRR) was calculated to be 10.9%, with the same fee incomes and the increase in the value of the residents’ assets in the project target areas as “benefits” and the project cost and operation/maintenance expenses as “costs.” On the other hand, the project target area was changed to the Jnane district in this project, and there is a big difference in the assumptions at the time of appraisal and of the ex-post evaluation. In addition, as will be explained in 3.4.3 Financial Aspect of Operation and Maintenance, the expenditure of operation and maintenance costs, which is a “cost,” has not actually started at the time of the ex-post evaluation, and the data on fee income, which is a “benefit,” were not presented by the HAO or the RAK, who are responsible for the operation and maintenance. Therefore, the EIRR and FIRR were not recalculated.

<sup>11</sup> The employment period of the consultant financed with the ODA loan was February 2008–before September 2010.

<sup>12</sup> The detailed bidding period could not be identified. Since the HAO’s own funds were utilized, bidding assistance was not provided using the ODA loan funds.

<sup>13</sup> The start month and the completion month could not be identified.

[Summary of Efficiency]

This project was continued after the project target area was changed to the Jnane district. Regarding the project cost, it is necessary to compare the planned amount with the actual amount by focusing on the validity of the initial financial plan including the ODA loan, and it cannot be concluded that the actual amount was necessarily efficient (approximately 157% of the plan). Regarding the project period, it took time to complete the procedure for changing the site to the Jnane area, reviewing and proceeding with the land acquisition plan, and re-implementing and approving the EIA; there was also a delay in the construction period. As a result, the delay was significant (approximately 192% of the plan). Therefore, the efficiency of the project is low.



Photo 1: Developed road



Photo 2: Developed stormwater management pond



Figure 2: Map of the project site location (Jnane district)

### 3.3 Effectiveness and Impacts<sup>14</sup> (Rating: ③)

#### 3.3.1 Effectiveness

##### 3.3.1.1 Quantitative Effects (Operation and Effect Indicators)

Table 4 shows the baseline and target values of the operation and effect indicators set at the time of the appraisal. Table 5 shows the target value of the Jnane site set in response to the change in the project target area, and Table 6 shows the actual value of the Jnane site. Table 7 shows the number of water and sewerage service users and the number of land relocations in the Jnane site as reference indicators.

<sup>14</sup> Sub-rating for Effectiveness is to be put with consideration of Impacts.

Table 4: Operation and Effect Indicators of this Project  
(Baselines and Targets at the Time of Appraisal)

Indicator	Baseline (2006)		Target (2016) [2 Years After Completion]	
	Sidi Taibi	Ouled M'barek	Sidi Taibi	Ouled M'barek
Household electrification ratio (unit: %)	28	24	100	100
Percentage of water supplied population (unit: %)	0	7	60	92
Percentage of the sewage treated population (unit: %)	0	0	60	98
Percentage of legal possession of land (unit: %)	31.8	N/A	100	100

Source: Documents provided by JICA



Review of the target values following the project site change

Table 5: Operation and Effect Indicators of This Project  
(Target Values that JICA and the HAO Agreed<sup>15</sup>)

Indicator	Target
	Project Site After the Change: Jnane Site
Household electrification ratio (unit: %)	100
Percentage of water supplied population (unit: %)	100
Percentage of the sewage treated population (unit: %)	100
Percentage of legal possession of land (unit: %)	100

Source: JICA's documents, Minutes of Discussion (M/D) between JICA and the HAO, Project Completion Report

Table 6: Actual Values of the Operation and Effect Indicators of This Project  
(At the Time of the Project Completion and at the Time of the Ex-Post Evaluation)

Indicator	Actual (Jnane Site)	
	2016 (At the time of the Completion)	2021 (At the Time of the Ex-Post Evaluation)
Household electrification ratio (unit: %)	76	100
Percentage of water supplied population (unit: %)	76	100
Percentage of the sewage treated population (unit: %)	91	100
Percentage of legal possession of land (unit: %)	N/A	Approx. 100

Source: Answers to the questionnaire, HAO's document

<sup>15</sup> As of February 23, 2015, JICA and the HAO have exchanged minutes of the discussion (M/D) to mutually confirm the scope, implementation schedule, review of the operation and effect indicators, etc., following the change in the project target area.

(Reference) Table 7: Numbers of Water Supply/Sewerage/Electric Power Service Users, Number of Land Relocations in the Jnane Site (Changes in the Last Three Years: Actual)

	2018	2019	2020
Average daily water supply (unit: m <sup>3</sup> /day)	N/A	N/A	N/A
Number of water service users (unit: household)	404	1,444	2,004
Number of sewerage service users (unit: household)	404	1,444	2,004
Number of electric power service users (unit: household)	549	1,561	2,101
Number of land relocations (unit: number)	Cumulative up to 2020 (at the time of the ex-post evaluation): 1,957 *Note		

Source: Answers to the questionnaire, the HAO's document

\*Note: The number of relocations for households that were forced to relocate from outside the Jnane district. This does not include the lots of the residents who had previously lived in the area or those who have land rights, or the lots to be sold in the future.

For this project, the baseline and target values were set as shown in Table 4 at the time of the appraisal. As the project target area was changed to the Jnane site, JICA and the HAO agreed to reset the target values as shown in Table 5. At the time of the ex-post evaluation, 4,689 lots of land have been developed in the Jnane site, in which 2,004 households reside. Table 6 shows the actual data for 2016 at the time of project completion and 2021 at the time of the ex-post evaluation (two fiscal years). The total area covered by infrastructure facilities in the Jnane site is 92 ha,<sup>16</sup> and the total number of land lots is 4,689. As of the time of the ex-post evaluation, these 4,689 lots are classified into three types: (1) the lots for (mainly low-income) households who have been forced to relocate due to the land acquisition from outside the district (1,960 lots), (2) the lots of residents who had resided or had land rights before the development of this district (1,637 lots), and (3) the lots that will be sold in the future (1,092 lots). Through this project, infrastructure facilities such as water supply/sewerage, electricity and roads have been developed in a total of 4,689 lots (1,960 + 1,637 + 1,092 lots) by the time of the ex-post evaluation, and residents will be able to access them when they build houses. In other words, regarding the targets shown in Table 5, 100% was achieved for the household electrification ratio, percentage of water supplied population, and percentage of the sewage treated population.<sup>17</sup> Concerning the percentage of legal possession of land, there are no illegal occupants in this district, and all occupants have either been relocated by land acquisition,

<sup>16</sup> The breakdown is 50 ha in the third ward of the Jnane district, 32 ha in the fourth ward of the Jnane district, and 10 ha in the fifth ward of the Jnane district (92 ha in total).

<sup>17</sup> Connections including piping and wiring have been completed in this area, and basic social infrastructure services can be used immediately.



purchased land or have the right to own land (of the above 4,689 lots, (1) and (2) apply). In addition, as will be explained below, of “(1) the lots for (mainly low-income) households who have been forced to relocate due to the land acquisition from outside the district (1,960 lots)” that are actually subject to the land relocation, 1,957 lots have already been relocated. Thus, it can be said that approximately 100% has been achieved (= 1,957/1,960 lots).<sup>18</sup>

Table 7 shows the water supply/sewerage/electric power services and the number of land relocations in the Jnane site for reference. At the time of the ex-post evaluation (as of 2021), 2,004 households reside in the Jnane site.<sup>19</sup> Although the average daily water supply is unknown, as shown in the table, the number of water supply service users has been increasing year-on-year, and so it is thought that the average daily water supply is increasing. Regarding the sewerage service, the number of users is the same because the household heads sign up for the service at the same time as the water supply. The number of electric power service users is also on the rise.<sup>20</sup> The number of land relocations is the cumulative data up to 2020. Of the 4,689 lots explained above, this shows that 1,957 lots have been relocated<sup>21</sup> of the 1,960 lots allocated for the households that were forced to move from other districts classified as (1). The HAO commented that “the lots under the category (1) are set up for resettlement, and the land has almost been relocated,” and concerning the other lots (mainly (2) and (3) above), “the move to the Jnane district is continued. The population is also on the rise,<sup>22</sup> and land relocation is expected to increase for the time being.” Based on these comments, it is estimated that the number of users of water supply, sewerage, and electric services will continue to increase.

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<sup>18</sup> (2) The lots of residents who had resided or had land rights before the development of this district (1,637 lots) are not included in the percentage of legal possession of land in Table 6 or in the number of land relocations in Table 7. This is because this group is not a target of the relocation, strictly speaking.

<sup>19</sup> Table 7 shows the number of houses that are mostly developed of a total of 4,689 lots. As explained in the main text, basic infrastructure services can be used as soon as a house is constructed. However, as of the time of the ex-post evaluation, not much time has passed since the lots have been completed, and the number of households is not large compared to the number of lots that have been developed.

<sup>20</sup> The actual for 2020 (2,101 households) is more than the actual number of households (2,004 households). This is because there are cases where the building is also used by shops (combined housing), and there are cases where two households live together in one building, with multiple contracts.

<sup>21</sup> At the time of the ex-post evaluation, the lots are mixed, such as where the relocation is completed and the residential building is already constructed, where it is under construction, and where it is planned to be constructed in the future. In any case, all lots have been prepared and developed and can be connected to each infrastructure service, which can be used.

<sup>22</sup> Morocco has a population of approximately 36.03 million (source: World Bank data, 2018). The population of Kenitra City, to which the Jnane district belongs, was 362,000 in 2005, 402,000 in 2010, and 445,000 in 2015 (source: <https://fr.statista.com/statistiques/1005100/population-evolution-kenitra/> accessed on July 27, 2021). It can be said that there is an increasing trend in population as a whole.

### 3.3.1.2 Qualitative Effects (Other Effects)

#### (Improving Access to Basic Social Infrastructure Services through Project Implementation)

In this evaluation study, a qualitative interview survey was planned to be conducted for the residents of the Jnane site. However, this has not materialized because permission was not given by the Moroccan side to conduct the survey. On the other hand, through site visits (visual inspection), the following was confirmed in the district: (1) housing construction is in progress, (2) after the housing is constructed and the relocated people start living there, they are using the water supply/sewerage and electric power services, (3) those who moved in are using the developed road to attend schools and visit commercial facilities, and (4) there were no particular problems or issues with the substation equipment, the electronic control panel in the pumping station installed in the stormwater management pond, or the sewerage pumping facility introduced by this project. It is thought that the residents are accessing the basic social infrastructure services due to the implementation of this project.

### 3.3.2 Impacts

#### 3.3.2.1 Intended Impacts

##### (Contribution to Improving the Living Environment of the Residents and Revitalizing the Local Economy in the Target Area)

As previously mentioned, residents of the Jnane site are believed to be benefiting from the services provided through the water supply/sewerage, electricity and road infrastructure facilities. As shown in Table 7, considering the fact that the number of service users is increasing, it is highly possible that the living environment of residents is improving compared to before the start of this project.

For reference, Table 8 shows the changes in the poverty rate by region including the Kenitra region (Rabat-Salé-Kénitra) to which the Jnane district belongs, and Table 9 shows the changes in the GDP of the region.

(Reference) Table 8: Changes in Poverty Rate by Region (Comparison between 2001 and 2014<sup>23</sup>)

(Unit: %)

Region	2001	2014
Drâa-Tafilalet	40.3	14.6
Marrakech-Safi	20.2	5.4
Oriental	18.2	5.3
Souss-Massa	16.7	5.1
Fès-Meknès	16.6	5.2
<b><u>Rabat-Salé-Kénitra</u></b>	<b><u>15.5</u></b>	<b><u>3.8</u></b>
Béni Mellal-Khénifra	14.4	9.3
Tanger-Tétouan-Al Hoceima	11.5	2.2
Casablanca-Settat	6.9	2.0
South Region (Souss-Massa-Draa)	6.0	3.3

Source: High Commission for Planning (HCP, Haut Commissariat au Plan)

(Reference) Table 9: GDP of the Rabat-Salé-Kénitra Region (Latest Five Years)

(Unit: million Moroccan dirham)

2014	2015	2016	2017	2018
152,086	158,313	162,515	171,838	172,738

Source: Statistics Directorate of Morocco

With respect to the statistical data in Tables 8 and 9, it is difficult to prove to what extent this project directly contributes to economic revitalization and poverty reduction in the Jnane district. However, it is highly probable that the development of the basic infrastructure facilities, commercial and public facilities, etc., enabled the increase in employment, opening of new businesses, and the securing and increasing of income, leading to the revitalization of the local economy. It should be noted that the most recent year shown in Table 8 is 2014, and that these are data from during the implementation of this project. The poverty rate decreased nationwide compared to 2001. Given that the gross domestic product (GDP) increased year-on-year as shown in Table 9, it is possible that the poverty rate has further declined until the ex-post evaluation due to the realization of economic growth. Nevertheless, considering that it is still a speculation, we will treat it as a reference.

<sup>23</sup> In Morocco, statistical data will be created based on the census. The last census was in 2014 and the next census will be in 2024. Accurate data are not available in the meantime.

### 3.3.2.2 Other Positive and Negative Impacts

#### 1) Impacts on the Natural Environment

This project was classified as Category A because it was judged to have the characteristics that are likely to have an impact as listed in the *Japan Bank for International Cooperation Guidelines for Confirmation of Environmental and Social Considerations*.<sup>24</sup> The EIA was approved by the Moroccan Ministry of Land Management, Water, and Environment (MATEE) in November 2006. As mentioned above, following the change of the project target area to the Jnane district, the EIA was carried out again by the Moroccan side, which was approved in August 2014.

Through the questionnaire and interviews with the HAO, it was confirmed that there were no particular negative impacts on the natural environment (air pollution, vibration, noise, impacts on the ecosystem, etc.) during the implementation of this project and after the completion of the project. The contractor for this project made efforts to prevent the spread of dust by regularly sprinkling water on the project site during times of little rain. There are no events that show the effects on the ecosystem around the project site. In addition, according to the HAO, there are no health hazards to the residents of the Jnane district, no phenomena related to this project, and no complaints have been reported. Based on the above, it can be considered that the negative impact on the natural environment is minimal in this project.

During the implementation of this project, the contractor was conducting the environmental monitoring in cooperation with the HAO regional branch (Kenitra branch). The branch is still responsible for the environmental monitoring after the project's completion, and no serious problems have occurred nor has action been taken as of the time of the ex-post evaluation.

#### 2) Resettlement and Land Acquisition

In the Jnane district, land was owned by local tribesmen for grazing. Before the start of the project, it was almost vacant,<sup>25</sup> and most of the lots for the low-income group in this project utilized this land. In implementing this project, the HAO provided a total of 1,637 lots as alternative land to the rights holders.<sup>26</sup> According to the HAO, based on the land acquisition

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<sup>24</sup> Established in April 2002.

<sup>25</sup> According to the document provided by JICA, seven households were actually living there, but the HAO agreed to relocate them to the location desired by the household heads before the formal land acquisition procedure, and prepared and provided the land. There were no protests from the concerned people nor problems. It can be said that there was no need for large-scale resettlement or the provision of financial compensation.

<sup>26</sup> Although the specific number of landowners could not be identified, it is unlikely that the number matches the 1,637 lots because presumably there are people who own multiple lots and some lots may have multiple owners. The landowners live in the Jnane district (220 ha), and alternative land was provided within the same district. As

plan, the land acquisition proceeded in cooperation with the local government,<sup>27</sup> and although the procedure took time, it was generally smooth, and there have been no complaints or objections thus far.

[Summary of Effectiveness and Impact]

Verifying the situations after the project target area was changed to the Jnane site, the targets regarding the quantitative data (operation and effect indicators) have been achieved for the household electrification ratio, the percentage of water supplied population, the percentage of the sewage treated population and the percentage of the legal possession of land. It has been confirmed that housing construction is progressing, residents including poor households are using and benefiting from the water supply/sewerage and electric power services, and they are accessing schools and commercial facilities in the district using the improved roads. Therefore, it is highly possible that this project is contributing to improving the living environment of the residents. Therefore, effectiveness and impacts of the project are high.<sup>28</sup>



Photo 3: House under construction



Photo 4: Vacant lots

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mentioned above, this was limited to the provision of alternative land, and no compensation or livelihood recovery support was given to the landowners. According to the HAO, they did not face a situation in which compensation or livelihood recovery support was required.

<sup>27</sup> JICA received and confirmed the land acquisition plan for the Jnane district from the HAO, and the land acquisition was proceeded in agreement with the HAO. The HAO followed the procedures prescribed by the Moroccan Ministry of Interior and completed the land acquisition.

<sup>28</sup> As a supplementary explanation, while the possibility is not ruled out that it differs from the initial assumption of the project effect because the Jnane district became the project target area, there is no difference in terms of the nature of the project components (water supply, sewerage, electric power, road infrastructure facilities) from the time of the appraisal. In addition, this project responds to the needs for “improvement of basic social infrastructure services and housing construction for poor households as the number of poor households increases nationwide in Morocco,” and the project design remained unchanged throughout the project implementation. Considering the above, its effectiveness and impact cannot be said to be low.

### 3.4 Sustainability (Rating: ③)

#### 3.4.1 Institutional/Organizational Aspect of Operation and Maintenance

The executing agency of this project is the HAO. Table 10 shows the operation and maintenance structure of the developed outputs. The HAO regional branch (Kenitra branch) is in a position to supervise the operation and maintenance of each output by coordinating and collaborating with the RAK and the Kenitra Commune (local government), which provides basic social infrastructure services in Kenitra City.

Table 10: Organizational Structure of the Operation and Maintenance of This Project

Developed Infrastructure Facility	Jnane district
Water supply facility	Kenitra City Public Corporation (RAK)
Sewerage facility, stormwater drainage facility	
Electric power facility	
Road	Kenitra Commune

Source: Answers to the questionnaire

Based on the questionnaire and interviews with the HAO headquarters, the HAO regional branch (Kenitra branch), the RAK, and Kenitra Commune staff, the number of staff responsible for the operation and maintenance of each infrastructure facility that has been developed is observed to be sufficient. Information on the number of staff at each infrastructure facility is as follows.

The “Water Supply and Sanitation Operation Division” of the RAK is in charge of the water supply facilities. One supervisor and two full-time staff are responsible for the daily and preventive maintenance of water supply facilities and the water quality management of water distribution, while the outsourced contractors employed by the RAK carry out the actual operation and maintenance work. The “Sewerage and Sanitation Management Division” of the RAK is in charge of the sewerage and stormwater drainage facilities. One supervisor and two full-time staff are responsible for the daily and preventive maintenance of the sewerage networks, the maintenance of the sewage pumping station and the sewage treatment facilities, while the outsourced contractors employed by the RAK carry out carry the actual operation and maintenance works, as it is in the case of the water supply facilities. The “Electrical Construction and Service Management Division” of the RAK is in charge of the electric power facility. In terms of the technical staff, 35 staff carry out the maintenance of public distribution

substations and medium-pressure and low-voltage power grids. The road is the responsibility of the Kenitra Commune, who carries out maintenance such as road repairs and cleaning. Although the number of full-time staff could not be identified and the number of staff varies depending on the volume of the work, it was reported that works are being done on an as-needed basis. Regarding the number of full-time staff of the water supply and sewerage facilities, the RAK is considering increasing the number of staff, as the number of users of the water supply and sewerage services is on the rise as shown in Table 7 above.

Based on the above, it is judged that there is no particular problem in the operation and maintenance system or structure of this project.

### 3.4.2 Technical Aspect of Operation and Maintenance

The RAK staff engaged in the operation and maintenance of the water supply, sewerage, and stormwater drainage facilities have expertise in hydraulic engineering, while the RAK staff engaged in the electric power facilities have expertise in electrical engineering. Although Kenitra Commune staff engaged in road operation and maintenance are not required to have a high specialization in particular, they do have knowledge of road maintenance and repairs.

The RAK's human resource department formulates and implements training plans for the operational and maintenance staff. Training is mainly carried out by governmental organizations such as the National Office of Electricity and Drinking Water (ONEE) and a technique private company (LYDEC<sup>29</sup>). At times training is conducted within the RAK. Examples of the training conducted in the last three to four years include "maintenance of safety and health at construction sites" and "reduction of workload and risk during electrical work in accordance with norms." The RAK also conducts on-the-job training (OJT) when new staff are hired.

For Kenitra Commune staff engaged in the operation and maintenance of roads, there is no particular training on improving road expertise. However, knowledge and experience are being acquired through on-site training.

Through the interviews conducted during the field survey, it was confirmed that the staff of the RAK and Kenitra Commune recognize the importance of operation and maintenance works. Each department has manuals on operation and maintenance. Staff refer to them as needed, utilizing them in their daily work.

From the above, it is judged that there are no major technical problems related to the

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<sup>29</sup> A public service company responsible for the operation of social infrastructure such as water supply, sewerage, and electric power. It has a training center in Casablanca, Morocco's largest city.

operation and maintenance of this project.

### 3.4.3 Financial Aspect of Operation and Maintenance

Table 11 shows the actual amount of the operation and maintenance costs of the entire RAK (actual amount of the areas serviced by the RAK including the Jnane district) for the last three years. Since it does not directly indicate the actual situation of the Jnane district of this project, it is used as reference information.

(Reference) Table 11: Operation and Maintenance Costs of Water Supply, Sewerage, and Electric Power Facilities for the Entire RAK Including the Jnane District (Actual Amount)  
[Water Supply Facility]

(Unit: thousand Moroccan dirham)

	2018	2019	2020
Operation cost	75,000	83,000	97,000
Maintenance cost	264,000	673,000	127,000

[Sewerage/Stormwater Drainage Facility]

(Unit: thousand Moroccan dirham)

	2018	2019	2020
Operation cost	46,000	51,000	54,000
Maintenance cost	96,000	129,000	85,000

[Electricity Power Facility]

(Unit: thousand Moroccan dirham)

	2018	2019	2020
Operation cost	90,000	105,000	132,000
Maintenance cost	240,000	322,000	210,000

Source of the above: Answers to the questionnaire

According to the HAO and the RAK, “the population and the number of residential units are increasing year by year in the service areas under the jurisdiction of the RAK. Necessary operation and maintenance costs for each district and infrastructure facility, including the Jnane district, have been allocated for the past few years.<sup>30</sup>” On the other hand, as discussed in 3.2.2.2 Project Period under Efficiency, most of the basic infrastructure facilities were completed in the first half of 2021, and were within the warranty period right before the timing of the ex-post evaluation. Until then, the contractors were responsible for the operation and maintenance by investing funds. In other words, practically, many operations and maintenance costs have not yet

<sup>30</sup> Although data on the actual amount for 2021 was not available, the RAK suggests that it is on an increasing trend compared to 2020.



occurred. While it is necessary to pay close attention to the trend of budget allocation by the RAK for the time being, the RAK has indicated that it intends to allocate the necessary amount to the developed infrastructure facilities.<sup>31</sup> Regarding the road operation and maintenance costs, Kenitra Commune has indicated that it intends to allocate the necessary amount according to the road surface conditions and repair needs. In the future, it has indicated that it intends to allocate 2.5 million Moroccan dirham to the operation and maintenance cost as an annual budget.

Based on the above, it is judged that there are no major financial problems related to the operation and maintenance of this project.

#### 3.4.4 Status of Operation and Maintenance

At the time of the ex-post evaluation, there were no major problems with the operation and maintenance of the water supply/sewerage/stormwater drainage facilities, electric power facilities, and roads developed in the Jnane district. It was confirmed through site visits, questionnaire responses, and interviews with the RAK and Kenitra Commune staff that the operation and maintenance is being carried out appropriately. The RAK purchases, procures and stores spare parts related to each infrastructure facility and equipment as needed. Spare parts are sourced from the European Union (EU) or the Moroccan domestic market.<sup>32</sup> By the time of the ex-post evaluation, there was no shortage of parts, and there has not been any case where maintenance was delayed due to a parts shortage.

No major problems have been observed in the institutional, technical, financial aspects and current status of the operation and maintenance system. Therefore, sustainability of the project effects is high.

## 4. Conclusion, Lessons Learned and Recommendations

### 4.1 Conclusion

The objective of this project was to improve the access to basic social infrastructure (water supply, sewerage, electricity, road) services for residents of unsanitary areas in regional cities near the Rabat metropolitan area. The government of Morocco formulated the *National*

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<sup>31</sup> According to the RAK, as of the first half of 2021, of the amount shown in Table 11, the proportion of the operation and maintenance costs of the basic infrastructure facilities (water supply, sewerage, electricity) in the Jnane area developed by this project is approximately slightly more than 7% for water supply, approximately slightly less than 10% for sewerage, and approximately slightly more than 6% for electricity. However, as the allocations cannot be confirmed, it is considered reference information.

<sup>32</sup> According to the RAK, the average procurement period is two to three months.

*Development Initiative* and the *VSB Program* and advocated the need to improve access to the basic infrastructure social services for vulnerable groups (poor, unsanitary housing residents, etc.) and to reduce poverty. While there is a strong need to provide and improve these services to the increasing number of poor households, it is in line with the assistance policy of Japan; therefore, the relevance is high. Regarding efficiency, the project cost significantly exceeded the initial plan, when comparing the planned amount and the actual amount by emphasizing the relevance of the initial financial plan including the yen loan. The project period was significantly longer than the initial plan because it took time to complete the procedures for changing the target site to the Jnane district, reviewing the land acquisition plan, and the re-implementation and approval of the EIA; therefore, the efficiency is low. As for the quantitative effect indicators, verifying the effectiveness and impact after the project target area was changed to the Jnane district, targets have been achieved in terms of the electrification ratio, percentage of population supplied with water, sewerage population treated, and the percentage of legal possession of land. Considering the progress in housing construction, the fact that residents including poor households are using and benefiting from the water supply, sewerage and electric power services, and the fact that they are accessing schools and commercial facilities within the areas using the developed roads, it can be said that this project is contributing to the improvement in the living environment of the residents; and therefore, the effectiveness and impacts are considered to be high. There are no major concerns in the institutional/organizational, technical, financial aspects and the status of operation and maintenance of the RAK and Kenitra Commune (local government), etc., responsible for the operation and maintenance of the developed infrastructure facilities. Therefore, the sustainability is judged to be high.

In light of the above, this project is evaluated to be satisfactory.

## 4.2 Recommendations

### 4.2.1 Recommendations to the Executing Agency

None

### 4.2.2 Recommendations to JICA

None

## 4.3 Lessons Learned

The Importance of Making a Prediction as Much as Possible at the Appraisal Stage, Sharing

External Factors and Obstacles, Responding When a Risk or Problem Arises, Establishing a Cooperative System, Monitoring Project Supervision

- After the start of this project, the target area of the project was changed to the Jnane district, where the basic infrastructure facilities were improved. Due to the influence of Morocco's administrative organization (the Sidi Taibi district) and the fact that the situation did not improve due to delays in land acquisition (the Ouled M'barek district), these two districts were excluded from the project scope. While it may not be easy to anticipate at the appraisal stage changes in the political situation and unexpected factors that may occur after the start of a project, when formulating similar projects in the future, it is important for the development assistance agency and the recipient country to manage the project using a thorough system, that is making a certain prediction for the progress of the project, reporting external and obstructive factors each other, responding to risks and problems, confirming the cooperation system, mutual monitoring the project supervision during the project implementation, eliminating unexpected factors, and taking prompt action if the need arises.

Comparison of the Original and Actual Scope of the Project

Item	Plan	Actual
<p>1. Project Outputs</p>	<p>[Sidi Taibi district (near the capital Rabat), Ouled M'barek district (within the Ouled M'barek sector, Kenitra City)]</p> <p>1) Civil Engineering Work</p> <p>(1) Installation of water and sewage systems (installation of water pipes and drainpipes for rainwater and sewage): 39.3 km of water pipes, 23.9 km of drainpipes for rainwater and sewage</p> <p>(2) Installation of electricity distribution networks: 32.0 km</p> <p>(3) Construction, widening and asphaltting of roads: 11.0 km</p> <p>2) Assistance for Local Residents</p> <p>(1) Provision of project information to the target residents of the project</p> <p>(2) Support for the resettlement procedures</p> <p>(3) Training for residents' organizations</p> <p>(4) Monitoring of the living environment of the relocated residents</p> <p>3) Consulting Services</p> <p>(1) Reviewing detailed design</p> <p>(2) Bid support</p> <p>(3) Construction supervision</p> <p>(4) Environmental monitoring</p>	<p>[Jnane district (within the Ouled M'barek sector, Kenitra City)]</p> <p>1) Civil Engineering Work</p> <p>(1) Installation of water and sewage systems (installation of water pipes and drainpipes for rainwater and sewage): 67.9 km of water pipes, 87.2 km of drainpipes for rainwater and sewage (combined system), stormwater management pond and pumping facility</p> <p>(2) Installation of electricity distribution networks: 244.0 km</p> <p>(3) Construction, widening and asphaltting of roads: 5.5 km</p> <p>2) Assistance for Local Residents</p> <p>The HAO implemented (1)–(4) listed on the left.</p> <p>3) Consulting Services</p> <p>The HAO implemented (1)–(4) listed on the left by hiring consultants with their own funds.</p>

2. Project Period	March 2007–June 2014 (88 months)	March 2007–March 2021 (169 months)
3. Project Cost		
Amount Paid in Foreign Currency	357 million yen	0 million yen
Amount Paid in Local Currency	7,026 million yen	11,591 million yen
Total	7,383 million yen	11,591 million yen
ODA Loan Portion	(5,537 million yen)	(1,609 million yen)
Exchange Rate	1 Moroccan dirham = 13.4 yen (As of December 2006)	1 Moroccan dirham = 11.13 yen (International Monetary Fund International Fiscal Statistics 2010–2016 average: average of major expenditure period)
4. Final Disbursement	October 2015	