

United Nations Development Programme,
Programme of Assistance to the Palestinian People
برنامج الأمم المتحدة الإنمائي / برنامج مساعدة الشعب الفلسطيني



Assignment:
Consultancy Services for Final Project Evaluation of the Rehabilitation and Consolidation of
the Gaza Industrial Estate Project

RFQ:
PAL-0000053938

Final Evaluation Report

Submitted by:

مركز الهندسة والتخطيط
Center for Engineering and Planning

برج الجوهرة، الطابق الرابع، شقة رقم 48 شارع الوحدة، الرمال غزة، فلسطين	Office No. 48, 4th Floor, Burge Al Jawharah, El Wehda st. Gaza, Palestine
هاتف: + 972 8 2827173 فاكس: + 972 8 2846445 جوال: + 972 059 9746393 بريد: cepgaza@gmail.com	Tel: + 972 8 2827173 Fax: + 972 8 2846445 Mobile: + 972 059 9746393 Email: cepgaza@gmail.com

December 19, 2018

TABLE OF CONTENTS

LIST OF ABBREVIATIONS	3
EXECUTIVE SUMMARY	4
1 INTRODUCTION.....	8
1.1 PROJECT BACKGROUND	8
1.2 PROJECT DESCRIPTION.....	8
1.3 EVALUATION PURPOSE	8
1.4 EVALUATION OBJECTIVE	9
1.5 EVALUATION SCOPE	9
1.6 ASSIGNMENT, TEAM AND DURATION	9
2 EVALUATION PRINCIPLES AND CRITERIA.....	9
2.1 GUIDING PRINCIPLES OF THE EVALUATION.....	9
2.2 EVALUATION CRITERIA AND QUESTIONS	9
3 EVALUATION APPROACH AND METHODS.....	11
3.1 GENERAL APPROACH	11
3.2 EVALUATION PROCEDURE	12
3.3 CONDUCTED EVALUATION TOOLS	12
4 LIMITATIONS OF THE EVALUATION	12
5 DATA ANALYSIS AND PRINCIPAL CONCLUSIONS	12
5.1 RELEVANCE	13
5.2 EFFICIENCY.....	17
5.3 EFFECTIVENESS	21
5.4 IMPACT	25
5.5 SUSTAINABILITY.....	31
6 RECOMMENDATIONS	36
6.1 RELEVANCE	36
6.2 EFFICIENCY.....	36
6.3 EFFECTIVENESS	37
6.4 IMPACT	37
6.5 SUSTAINABILITY.....	38
7 LESSONS LEARNED	38
7.1 LESSONS LEARNED CONCERNING RELEVANCE.....	38
7.2 LESSONS LEARNED CONCERNING EFFICIENCY.....	38
7.3 LESSONS LEARNED CONCERNING EFFECTIVENESS	39
7.4 LESSONS LEARNED CONCERNING IMPACT	39
7.5 LESSONS LEARNED CONCERNING SUSTAINABILITY	39
8 THE SUCCESS INDICATORS.....	39
ANNEX I: TOR FOR THE EVALUATION	
ANNEX II: SHORT BIOGRAPHIES OF THE EVALUATORS	
ANNEX III: METHODS TOOLKIT	
ANNEX IV: LIST OF MATERIALS REVIEWED	
ANNEX V: CONDUCTED INTERVIEWS, FOCUS GROUPS AND FIELD AUDIT	

LIST OF ABBREVIATIONS

CEP	Center for Engineering and Planning
CPD	Country Project Document
DNA	Detailed Needs Assessment
EMCC	Engineering and Management Consultant Center
EU	European Union
GEDCO	Gaza Electricity Distribution Corporation LTD.
GIE	Gaza Industrial Estate
PA	Palestinian Authority
PENRA	Palestinian Energy and National Resources Authority
PIEDCO	Palestinian Industrial Estate Development Company
PIEFZA	Palestinian Industrial Estates and Free Zones Authority
PWA	Palestinian Water Authority
RBM	Results-Based Management
RCGIE	Rehabilitation and Consolidation of the Gaza Industrial Estate
RFQ	Request for Quotation
SCADA	Supervisory Control and Data Acquisition
SDGs	Sustainable Development Goals
TOR	Terms of Reference
UN	United Nations
UNDAF	UN Development Assistance Framework
UNDP	United Nations Development Programme
VOs	Variation Orders

EXECUTIVE SUMMARY

This is a final report concerning the final evaluation of "Rehabilitation and Reconsolidation of the Gaza Industrial Estate (RCGIE)" project funded by the EU. Based on transparent competitive procurement procedure, UNDP has selected *Center for Engineering and Planning* to conduct the final evaluation assignment. The evaluation assignment started on November 5, 2018 and the completion date is December 24, 2018.

The Gaza Industrial Estate (GIE) is the Palestinian industrial zone that was established in 1997 at the eastern border of Gaza City. The GIE was planned to serve as the industrial hub for manufacturing in the Gaza Strip with access to the world's market. The GIE was developed by Palestinian Industrial Estate Development Company (PIEDCO) and Operated by Palestinian Industrial Estates and Free Zones Authority (PIEFZA). Currently, the GIE has 33 tenants with a labor force of approximately 2,000 laborers including 30 women.

During the 2014 war on Gaza Strip, massive damages have been occurred for about 861 industrial facilities. As a result, nearly 7,000 laborers have become unemployed and without a source of income. Among who, 70% belong to construction, food and wooden industries. Among the facilities that sustained damage during the 2014 war was GIE.

The UNDP has carried out needs assessment after the 2014 war in the GIE to assess the damages sustained by the war on the existing infrastructure and to identify interventions to support the recovery of the industrial estate needs assessment concluded that interventions are needed to recover essential infrastructure in the GIE.

The EU as part of the quartet is working towards building the essential infrastructure that sustains the expected Palestine state through establishing and empowering the cornerstone of economic power. The EU has funded the RCGIE Project of approximately 2,373,884 million Euros under which the following activities have been implemented:

- 1- Rehabilitation of GIE transformer rooms.
- 2- Repair out-of-order power cables and external lighting.
- 3- Rehabilitation of GIE wastewater collection system.
- 4- Rehabilitation of a water well and construction of a new well.
- 5- Rehabilitation and upgrading of the GIE desalination unit.

The expected results of the project are

- 1- The GIE electrical infrastructure is operational;
- 2- The GIE Wastewater System is operational;
- 3- The GIE Water wells and desalination Unit are operational.

The overall objective of the Project is to promote inclusive, sustainable, private sector-led economic development and therefore promoting decent-job creation in the Gaza Strip, building the path towards a green economy. The specific objective of this Project is to rehabilitate and consolidate the Gaza Industrial Estate to ensure it is fully operational and works as a catalyst for industrial development.

UNDP has implemented the sub-projects with coordination with the project stakeholders as needed. Five contractors were hired by UNDP to implement the sub-projects. An international desalination expert carried out the rehabilitation and upgrade assessment of the desalination unit. In addition, UNDP has contracted an external consultant (EMCC) to prepare Operation and Maintenance manual and conduct two training workshops with the operators.

The overall objective of this evaluation is to assess the progress made towards the achievement of the RCGIE Project's overall objective and respective outcomes and outputs, examining the result chain, processes, contextual factors and causality, to understand the achievements or the lack thereof. The general principles underlying the evaluation approach were: Impartiality and independence, credibility of the evaluation, participation of stakeholders and usefulness of the evaluation findings and recommendations.

The purposes of evaluation were:

- To make systematic and objective assessment of results chain, contextual factor and causality.
- To determine the **relevance** and fulfillment of objectives, developmental **efficiency, effectiveness, impact** and **sustainability**.
- To provide information that is credible and useful, enabling the incorporation of lessons learnt into the decision-making process of both recipients and donors and future programming.

The consultant used a multi-methodological, dynamic learning-oriented approach based on effective participation of stakeholders. The evaluation approach used qualitative and quantitative methods based on triangulation, cross-checking and validation with the view to conclude objective and evidence-based information on the assignment issues. The approach was flexible and combined primary and secondary sources based on 'triangulating' the results. Primary information was obtained from **semi-structured interviews** with PIEDCO, PIEFZA, GEDCO, PWA and UNDP, **focus group** with GIE tenants, and **participatory observations** from field audits. The secondary information included material review including project documents and reports as well as other references in the concerned field. The evaluation procedure included tools design, data collection and analysis, feedback presentation, conclusions, recommendations and learning lessons.

The project evaluation findings included conclusions, recommendations, lessons learned, and success indicators. It should be emphasized that the evaluation will be only successful if it was taken positively into consideration by project stakeholders.

The sub-projects have been implemented and achieved the expected results as follows:

1. **Rehabilitation of GIE transformer rooms:** Eight transformer rooms have been implemented with the main switchgear. The transformers are currently operational but not all of them have been connected to power feed lines and loads. It is expected that these transformers will be used as GIE and tenants expand. The control of transformers and switchgears can be done manually since the SCADA and communication equipment have been delayed by Israel. The total capacity of the transformers is around 18 MW. UNDP is currently pushing for the entry of the SCADA materials to enable remote control and monitoring.
2. **Repair out-of-order power cables and external lighting:** out-of-order power cables have been rehabilitated. External lighting has been installed and currently operational but some of the installed lightings were not connected to electrical feed lines.
3. **Rehabilitation of GIE wastewater collection system:** main wastewater pump station and substation have been rehabilitated and currently operational. The implementation of this sub-project was the most challenging since it was located outside GIE fence to the east side. This sub-project required daily security coordination with the Israeli side, which did not always grant access. This among other constraints greatly delayed the implementation of the project. The SCADA and Control components were installed and PIEFZA technicians were trained to operate the new pump stations. The new pumping set has the capacity to pump more than 400,000 cubic meters of sewage daily.
4. **Rehabilitation of a water well and construction of a new well:** The water well outside the GIE fence was rehabilitated and currently operational. Since this well was located closer to the Israeli fence, it required daily security coordination with the Israelis who did not always grant access. This among other constraints has caused the project to be delayed. The new is operational similar to the rehabilitated well with a new well's room constructed. The combined water supply capacity of both water wells is approximately 100 m³/hr. The SCADA and control equipment have been installed and PIEFZA technicians were trained to operate the water wells.
5. **Rehabilitation and upgrading of the GIE desalination unit:** the existing desalination unit has been rehabilitated and currently operational with a capacity of approximately 40 m³/hr. in addition, to upgrade the capacity of the desalination unit, an additional skid-mounted unit has been installed and currently operational with a capacity of 40 m³/hr. The quality of the desalinated water is within the required parameters. At the time of this evaluation, the operation of the desalination units was done

alternatively since the desalinated water demand was lower than the capacity of one unit and inadequate capacity of the inlet water pipe and the water wells.

In general, the project has achieved its overall objectives to a great extent. The main findings of the evaluation corresponding to each criterion are:

- 1. Relevance:** The project activities and outputs are relevant to the strategies, needs and priorities of the stakeholders.
- 2. Efficiency:** The project was implemented in the most economic and efficient manner under the project's circumstances.
- 3. Effectiveness:** It is highly possible that the project will attain its the stated objectives, outcome and outputs after the operation of the project for an adequate time.
- 4. Impact:** The project is expected to provide much-needed clean water, sanitary sewers, safe electrical supply to GIE tenants and laborers including women and vulnerable population. In the long-term, the project provides necessary infrastructure in the GIE to encourage the existing tenants to expand their operations, attract other tenants to GIE and attract other development projects which supports the private-sector and contribute to decent job creation and more inclusive and sustainable green economy in Gaza Strip. The adverse effects of the implemented sub-projects include increasing the wastewater loads to the municipal wastewater collection and treatment system and brine disposal to the municipal wastewater treatment plant.
- 5. Sustainability:** it is highly possible that the project benefits will continue after the funding is ceased. UNDP considered the sustainability aspects of the of the project in training the operation staff, creating an operation and maintenance manual and providing consumables for the implemented projects enough for 6-12 months.

The main lessons learned from the implementation of the project are:

1. Project stakeholders and implementing partners are likely to be more supportive of a project that addresses their needs.
2. Involvement of all project stakeholders in all project stages increases the sense of project ownership, ensures smoother project delivery and facilitates knowledge sharing.
3. Efficient financial management system could lead to cost savings and added benefits.
4. Contingency planning is important for such challenging projects that address the involvement of the many players, security constraints, material delivery delays and rejections and the current financial capacity of the contractors.
5. Available local technical capacities to assess and upgrade desalination units would benefit from further strengthening.
6. Long-term impacts can be accurately quantified after the project has been implemented and utilities have been operational for a longer time period.
7. The involvement of the international donors in enhancing the economic infrastructure contributes to empowering the economic sector in Gaza Strip, enhancing social and environmental work conditions of laborers including women and vulnerable groups and ultimately contributes to promoting peace.
8. Projects of high interest of the target beneficiaries are likely to be sustainable.
9. Obtaining assurances from the operator on their commitment to carry out the needed operation and maintenance activities could enhance project sustainability.

The main recommendations for future programming are:

1. Final project evaluation should be conducted after the operation of utilities for a longer time period in order to assess the benefits, collect case studies and success stories.
2. Exert more efforts to get project stakeholders participate more effectively in the projects through the project life cycle.
3. There is a need to address other infrastructure issues in the GIE including additional wells, stormwater management, separating combined sewers and pavement of secondary roads.

4. Future programming should consider implementing the supplementary works to the RCGIE including expanding the water inlet pipe to the desalination unit and upgrade the distribution network and connecting all the feedlines to the external lights. Expand future projects to address additional objectives and strategic directions.
5. There is a need for more careful financial verification of construction contractors working in Gaza.
6. There is a need for contingency planning for projects with high risk areas.
7. There is a need to enhance the technical capacity of the project implementing partners and stakeholders in specialized areas such as water desalination.

The success indicators included:

1. Operational electrical transformers, wastewater system, water wells and desalination unit and external lighting.
2. Access to clean water and sanitary sewers.
3. Increased number of laborers, operation hours and expansion. (**expected**)
4. Increased salaries and profitability. (**expected**)

1 INTRODUCTION

1.1 Project Background

The Gaza Industrial Estate (GIE) is the first Palestinian industrial zone that has been established and managed by Palestinian Industrial Estates & Free Zones Authority (PIEFZA) through private operator Palestinian Industrial Estate Development Company (PIEDCO) since 1997. Currently, the GIE has 33 tenants with a labor force of approximately 2,000 laborers including 30 women. The tenants' classification includes sewing and textile industry, food industry, wood and carpentry industry, aluminum and plastic industry, detergents industries, electronics and communications, UN stores, a Cafeteria, a Bank and others.

In July 2014, the Israeli military launched a sustained assault on Gaza. For seven weeks, Gaza was invaded and bombarded from land, sea, and air. During the 2014 war on Gaza Strip, massive damages have been occurred for about 861 industrial facilities. As a result, nearly 7,000 laborers have become unemployed and without a source of income. Among them, 70% belong to construction, food and wooden industries. Among the facilities that sustained damage during the 2014 war was the Gaza Industrial Estate (GIE).

The Palestinian Government has developed the "Palestinian National Early Recovery and Reconstruction Plan" to provide a roadmap for Gaza recovery after the war. The Plan was developed with the intention to transition from relief efforts to longer-term development needs across four sectors namely; social, infrastructure, economic, and governance. The UNDP has carried out needs assessment after the 2014 war in the GIE to assess the damages sustained by the war on the existing infrastructure and to identify interventions to support the National Early Recovery and Reconstruction Plan.

1.2 Project Description

The EU union as part of the quartet is adopting the two states solution for the Palestinian case and is working towards building the essential infrastructure that sustains the expected Palestine state through putting the cornerstone of economy for the forecasted state. The European Union has funded the project of "**Rehabilitation and Consolidation of the Gaza Industrial Estate (RCGIE)**" with a total budget for the approximately 2.3 Million Euros. The planned project implementation period was September 2016 - July 2018 but the project was delayed till December, 2018. Under the RCGIE project the following activities have been implemented:

- 1- Rehabilitation of GIE transformer rooms.
- 2- Repair out-of-order power cables and external lighting.
- 3- Rehabilitation of GIE wastewater collection system.
- 4- Rehabilitation of two water wells.
- 5- Rehabilitation and upgrading of the GIE desalination unit.

The expected results of the project are

- 1- The GIE electrical infrastructure is operational;
- 2- The GIE Wastewater System is operational;
- 3- The GIE Water wells and desalination Unit are operational.

The overall objective of the Project is to promote inclusive, sustainable, private sector-led economic development and therefore promoting decent-job creation in the Gaza Strip, building the path towards a green economy. The specific objective of this Project is to rehabilitate and consolidate the Gaza Industrial Estate to ensure it is fully operational and works as a catalyst for industrial development.

1.3 Evaluation Purpose

According to the TOR provided in **Annex I**, "*The evaluation should determine the relevance, impact, effectiveness, efficiency and sustainability of the Project to make adjustments and improve contributions to development. The assignment also aims to gather lessons learned to provide*

recommendation and identify best practices that focus on key components to guide future programming in enhancing the economic sector."

1.4 Evaluation Objective

According to the TOR, "The overall objective of this evaluation is to assess the progress made towards the achievement of the RCGIE Project's overall objective and respective outcomes and outputs, examining the result chain, processes, contextual factors and causality, to understand the achievements or the lack thereof."

1.5 Evaluation Scope

According to the TOR, "The evaluation scope covers all components of the RCGIE Project under the expected outcomes. This includes recovery of economy sector through reconstruction and rehabilitation of 8 transformers' rooms, reconstruction of 2 water wells and connecting to the existing water supply system, rehabilitation and expansion of sewage system including main and sub-stations, rehabilitation and repair out-of-order power cables, rehabilitation of external lighting, and rehabilitation and upgrading of the desalination plant of the GIE."

1.6 Assignment, Team and Duration

Based on UNDP's procurement procedures, UNDP has selected **Center for Engineering and Planning (CEP)** to carry out the evaluation assignment. Brief biographies of the evaluation team are provided in **Annex II**. The assignment total duration is 7 weeks. The assignment has started on November 5, 2018 and the completion date is December 23, 2018.

2 EVALUATION PRINCIPLES AND CRITERIA

2.1 Guiding Principles of the Evaluation

The general principles underpinning the approach to evaluation are¹:

- **Impartiality and independence** of the evaluation process from the programming and implementation functions.
- **Credibility of the evaluation**, through use of appropriately skilled and independent experts, and the transparency of the evaluation process, including wide dissemination of results.
- **Participation of stakeholders** in the evaluation process, to ensure different perspectives and views are taken into account.
- **Usefulness** of the evaluation findings and recommendations, through timely presentation of relevant, clear and concise information to decision makers.

2.2 Evaluation Criteria and Questions

The evaluation responds to the key questions, specific sub-question based on planned data collection methods, indicators and analysis methods according to the evaluation criteria as specified by the TOR. Table 2.1 lists the evaluation criteria and questions that cover all concerned evaluation criteria evaluated under this assignment.

Table 2.1: Evaluation Criteria, key questions and specific sub-questions.

Evaluation Criteria	Key Questions	Specific Sub-Questions
Relevance	To what extent the Project is consistent with	To what extent the

¹Handbook on Planning, Monitoring and Evaluating for Development Results, United Nations Development Programme, 2009.

	the priorities and policies of the target group, recipient and donor?	<ol style="list-style-type: none"> 1. Project has complied with the relevant national policies and priorities. 2. Objective of the development intervention correspond with the objectives and strategic directions of the UNDAF and UNDP - CPD 3. The activities and outputs of the Project consistent with the overall objective and the planned results. 4. The intervention is important for the target group and, and to what extent does it address their needs and interests.
Effectiveness	To what extent does the Project attain its stated objectives, outcomes and outputs?	<ol style="list-style-type: none"> 1. To what extent were the expected results achieved / are likely to be achieved against the objectives and indicators? 2. How effective was the Project approaches in the achievement of the expected results? 3. Which components of the Project approaches require modifications? 4. What were the major factors influencing the achievement or non-achievement of the objectives? 5. How has the Project contributed to providing adequate investment environment in the targeted infrastructure activities?
Efficiency	To what extent the Project outputs were achieved in an economic and efficient manner	<ol style="list-style-type: none"> 1. Were the financial resources and other inputs efficiently used to achieve results? 2. Were the activities cost-efficient? 3. Did the Project implementation follow the agreed timeframe? If not, what factors led to the change or delay in its delivery? 4. Was the Project implemented in the most efficient way compared to alternatives? 5. To what extent have the interventions been implemented/ coordinated with appropriate and effective partnership and synergies? What has been the nature and added value of these partnerships? 6. Did UNDP and its implementing partners have adequate technical expertise/capacity to implement the different Project components?
Impact	To what extent has the Project produced positive and negative changes, directly or indirectly, intended or unintended?	<ol style="list-style-type: none"> 1. What were the main impacts (positive/negative, expected/unexpected) as perceived by the different actors and beneficiaries of the project? 2. What was the notable immediate impact observed on the targeted beneficiaries and likely long-term impact of the Project? 3. What real difference has the Project made to the beneficiaries? 4. Has the project contributed to improving the social and living conditions of the targeted groups? In what way whether current or in future? 5. Does the project have any adverse social or environmental effects that should be considered in future projects and how?

		<p>6. Has the project contributed to enhancing human rights including those for women? How such projects which focuses on improving the economic infrastructure can support gender equality and human rights standards?</p> <p>7. How the project contributed to the protection of vulnerable groups, target beneficiaries and end users of existing industries?</p> <p>8. Are there any experiences that should be highlighted, e.g. case studies, stories, and best practices?</p>
Sustainability	To what extent the Project benefit are likely to continue after donor funding is ended?	<p>1. To what extent did the benefits of a Project or project continue after donor funding ceased?</p> <p>2. To what degree did the Project consider the existing structure or resources to enhance the sustainability after the end of the intervention?</p> <p>3. Do local community and beneficiaries support the interventions that were carried out by UNDP and the implementing partners? How national ownership is materialized?</p> <p>4. What is the likelihood that the operation, maintenance and repair of the constructed or recovered utilities being financed at the local and national level for continuity of the series after the end of the project?</p> <p>5. What were the major factors which influenced the achievement or non-achievement of sustainability of the Project? Specify the role of GIE operator in connection with sustainability?</p>

3 EVALUATION APPROACH AND METHODS

3.1 General Approach

The consultant used a multi-methodological, dynamic learning-oriented approach based on effective participation of stakeholders. The approach was flexible that combined primary and secondary sources based on 'triangulating' the results. The primary information was obtained from **interviews** with PIEFZA, PIEDCO, UNDP, PWA and other project stakeholders, **focus groups** with GIE tenants, and **participatory observations** from field visits. The secondary information included material review including project documents and reports aimed at examining the result chain, processes, contextual factors and causality, to understand the achievements or the lack thereof.

The approach used qualitative and quantitative methods based on triangulation, cross-checking and validation with the view to conclude objective and evidence-based information on the assignment issues. Triangulation refers to the use of different information sources, methods, types of data, or evaluators to study an issue from different perspectives and thereby arrive at findings that are more reliable. Crosschecking, triangulation and validation of evaluation results with stakeholders was the adopted approach by the evaluator to reach objective and evidence-based information. Explanation of the evaluation toolkit are provided in **Annex II**.

To achieve the assignment objectives, the scope of work has been conducted in a phased and goal-oriented approach. This flexible approach allowed adjusting the scope of a particular task based on updated findings of preceding tasks, in order to accelerate the progress and avoid unnecessary delays. Because of the very fast-track schedule of this assignment, the evaluator maintained daily liaison, communication and interaction with UNDP project manager.

3.2 Evaluation Procedure

Table 4.1 provides the sequential steps during the evaluative process.

Table 3.1: Evaluation Procedure and Objective.

No.	Steps (chronological order)	Objective
1.	Tools design	Systematic and efficient; participation and utility approach
2.	Data collection and analysis	Triangulation / discussion and diagnosis
3.	Feedback presentation	Public discussion, validation and agreement
4.	Conclusions	Clear and ordered by hierarchy
5.	Recommendations	Ideas about how to improve strengths and solve weaknesses
6.	Learning Lessons	Learning about successes and failures

3.3 Conducted Evaluation Tools

Multiple tools were used during the evaluation. *Annex III* provides a description of each of the tools used. Table 4.2 lists the number of analyzed elements of each one of the tools.

Tools	Number
Materials Review	10 (<i>Annex IV</i>)
Semi-structured Interviews	5 (<i>Annex V</i>)
Field Audit	1 (<i>Annex V</i>)
Focus Groups	1 (<i>Annex V</i>)

4 LIMITATIONS OF THE EVALUATION

Some of the limits of this evaluation may be as follows:

1. From a practical point of view, it was not possible to interview everyone participated in the project. However, interviews have been conducted with an adequate number of representatives from each involved organization and project stakeholder.
2. The evaluation was conducted at the end of the implementation phase. Therefore, a quantitative assessment of the impact was not possible. Also, success stories could not be seen due to inadequate time after implementation. The evaluation was a participatory process with constraints of time limitations.
3. This has not been a scientific research process. It has been an evaluative research process, with a specific time-frame. So, this evaluation could be considered rapid, but the evaluator has obtained enough information to arrive at the conclusions.

5 DATA ANALYSIS AND PRINCIPAL CONCLUSIONS

For convenience, the feedback from each information source used in the triangulation approach are given in the following tables for each of the 5 evaluation criteria. It is worthwhile noting that the criteria questions were discussed with relevant triangulation groups as applicable, i.e. some questions were not discussed with every information source if the question is not relevant to their specializations. The consultant conclusions and views are also given in the table at the end of each criteria triangulation analysis under the heading, e.g.: **Relevance Principal Conclusions**. This writing structure enhancing the readability of the report.

5.1 Relevance

Relevance addresses *the extent to which the Project is consistent with the priorities and policies of the target group, recipient and donor*. More specifically, Relevance answers the following questions as per the TOR:

1. To what extent are the activities and outputs of the RCGIE Project comply with the relevant national policies and priorities including national development plan, national policy agenda and the PA Detailed Needs Assessment (DNA) and Recovery Framework of Gaza Reconstruction?

Triangulation Analysis
<p>Document Review The project activities and outputs comply with the following policies and priorities:</p> <ul style="list-style-type: none"> ✓ The Palestinian Authority National Economic Development Plan 2014-16 Strategic Goals; through <ul style="list-style-type: none"> ○ Reducing dependence of the Palestinian economy on Israel and facilitating improved international trade opportunities. ○ Developing an enabling business and investment environment in Palestine. ○ Promoting competitiveness of the industrial sector. ✓ The PA Policy Agenda (2017-2022) in the following priorities <ul style="list-style-type: none"> ○ National Priority 6: Economic Independence ○ National Priority 10: Resilient Communities ✓ The PA Detailed Needs Assessment (DNA) and Recovery Framework of Gaza Reconstruction Recommend intervention in the Industry sector directly and indirectly with other sectors through enhancing livelihoods, employment and accessibility to clean water and sanitation. ✓ The project involved relevant policy and decision makers (e.g. PIEFZA, GEDCO and PWA) in order to ensure compliance with the policies, regulations, guidelines, etc.
<p>PIEFZA Semi-structured Interview ✓ The project highly complies with PA's and PIEFZA's policies and priorities.</p>
<p>PIEDCO Semi-structured Interview ✓ The project complied with the priorities and needs of PIEDCO.</p>
<p>PWA Semi-structured Interview ✓ The project complies with relevant water sector national policies and priorities.</p>
<p>GEDCO Semi-structured Interview ✓ The implemented project components and activities comply with GEDCO's strategies and specifications.</p>
<p>GIE Tenants Focus Group ✓ The implemented project complies with the relevant national priorities.</p>
<p>UNDP Semi-structured Interview ✓ The project highly complies with relevant national policies and priorities including national development plan, national policy agenda, the PA Detailed Needs Assessment (DNA), Recovery Framework of Gaza Reconstruction, SDG's and policies and plans of PIEFZA.</p>

2. To what extent does the objective of the development intervention in terms of development policy correspond with the objectives and strategic directions of the UN Development Assistance Framework (UNDAF) and UNDP Country Project Document (CPD)?

Triangulation Analysis
<p>Document Review The project objectives correspond with the following</p>

- ✓ The UNDAF thematic area 1: Economic empowerment, livelihoods, food security and decent work: By 2016, Palestinians in Palestine benefit from greater economic empowerment, improved livelihoods, access to decent work and food security (Outcome 1).
- ✓ The UNDP strategic plan 2014–17 outcome (1): Growth and Development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded.
- ✓ The EU Single Support Framework 2014-2016 in Palestine, in which support to the Private Sector and Sustainable Economic Development is one of the focal sectors of intervention.

UNDP Semi-structured Interview

- ✓ The project highly addresses the livelihoods, industry and economic strengthening and achieving the decent living goals of the UNDAF, UNDP -CPD and SDG's.

3. Are the activities and outputs of the Project consistent with the overall objective and the planned results?

Triangulation Analysis

Document Review

- ✓ The project activities and outputs are consistent with the overall objective and planned results of the project.
- ✓ The project was designed to contribute the overall objective of the inclusive, sustainable, private sector-led economic development by
 - Commercial restoration of damages alleviated by the 2014 war.
 - Sustainable development by strengthening the economic capability of GIE which is the planned location for Palestinian Trade from Gaza Strip to the outside world.

Field Audit

- ✓ **Rehabilitation of GIE transformer rooms:** Eight transformer rooms have been implemented with the main switchgear. At the time of this evaluation, all the transformers were currently operational but not all of them have been connected to power feed lines and loads. It is expected that these transformers will be used as GIE and tenants expand. The control of transformers and switchgear was done manually since the SCADA and communication equipment have been delayed by Israel. The total capacity of the transformers is around 18 MW.
- ✓ **Repair out-of-order power cables and external lighting:** out-of-order power cables have been rehabilitated with an additional 15,000 low and medium voltage cables installed to the electricity grid of the GIE. 195 LED and Halogen External lighting have been installed and currently operational but some of the installed lightings were not connected to electrical feed power. A total of 54 new lighting poles have been installed.
- ✓ **Rehabilitation of GIE wastewater collection system:** main wastewater pump station and substation have been rehabilitated and currently operational. The implementation of this sub-project was the most challenging since it was located outside GIE fence to the east side. This sub-project required daily security coordination with the Israeli side, which did not always grant access. This among other constraints greatly delayed the implementation of the project. SCADA and Control components were installed and PIEFZA technicians were trained to operate the pumps stations.
- ✓ **Rehabilitation of a water well and construction of a new well:** The water well outside the GIE fence was rehabilitated and currently operational. Since this well was located closer to the Israeli fence, it required daily security coordination with the Israelis who did not always grant access. This among other constraints has caused the project to be delayed. The new well was under construction when this evaluation has been conducted and it is expected the well be operational similar to the rehabilitated wells. The combined water supply capacity of both water wells is approximately 100 m³/hr. SCADA and Control components were installed and PIEFZA technicians were trained to operate the water wells.

<p>✓ Rehabilitation and upgrading of the GIE desalination unit: the existing desalination unit has been rehabilitated and currently operational with a capacity of approximately 40 m³/hr. in addition, to upgrade the capacity of the desalination unit, an additional skid-mounted unit has been installed and currently operational with a capacity of 40 m³/hr. The quality of the desalinated water is within the required parameters. At the time of the evaluation the operation of the desalination units was done alternatively since the desalinated water demand was lower than the capacity of one unit and inadequate capacity of the inlet water pipe and the water wells.</p>
<p>PIEFZA Semi-structured Interview</p> <p>✓ The project activities and outputs are highly consistent with the overall objective and planned results.</p>
<p>PIEDCO Semi-structured Interview</p> <p>✓ The project activities and outputs are consistent with the overall objective and the planned results.</p>
<p>PWA Semi-structured Interview</p> <p>✓ The activities and outputs are consistent with the overall objective and planned results.</p>
<p>GEDCO Semi-structured Interview</p> <p>✓ The project activities and outputs are consistent with the overall objective and the planned results.</p>
<p>GIE Tenants Focus Group</p> <p>✓ The project activities are consistent with the project objectives and the planned results.</p>
<p>UNDP Semi-structured Interview</p> <p>✓ Yes, the project activities and outputs of the project are consistent with the overall objective and planned results.</p>

4. How important is the intervention for the target group and subgroups (e.g. factories and tenants), and to what extent does it address their needs and interests?

Triangulation Analysis
<p>Document Review</p> <p>✓ During the project planning stage, the GIE was surveyed to identify specific rehabilitation needs. The following were results of the survey</p> <ul style="list-style-type: none"> ○ 16 electrical transformers' rooms were completely destroyed leading to complete electricity cut off from the GIE facilities. ○ most of the overhead cables were cut along with their carrying poles. The power supply to the desalination, water wells and wastewater station was interrupted. In addition, the lighting poles were also destroyed. ○ The wastewater pumping station room located near the border was totally damaged along with the pumps that are serving the GIE and discharging the sewage into the main sewage collection system of Gaza. ○ The on-site water well was directly destroyed during the 2014 war. <p>✓ During the 2014 war, the industrial sector has suffered from serious damages with the full or partial destruction of 4,000 factories.</p> <p>✓ The project addresses the need for rehabilitating and consolidating different infrastructure components in the Gaza Industrial Estate.</p> <p>✓ The project was designed to address the needs and constraints of the following target groups</p> <ul style="list-style-type: none"> ○ The existing tenants of the Gaza Industrial Estate (33 enterprises) as well as future tenants; ○ The existing (2,000 labors including 30 females) businesspersons and workers based in the Gaza Industrial Estate, as well as future ones.

<ul style="list-style-type: none"> ○ The people of Gaza, by improving the economic growth and securing the social equity and cohesion through a sustainable revitalization of the industrial zone in Gaza as well as provision of economic support, and marketing development.
<p>PIEFZA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The intervention was very important to the target group as it rehabilitated infrastructure that was not operational after the 2014 war. In addition, the project provided necessary infrastructure for the beneficiaries for operation and expansion. ✓ The project addressed the beneficiaries' immediate needs and interests after the 2014 war.
<p>PIEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The project is very important to PIEDCO and the target group and highly addresses a part of their need for operational infrastructure.
<p>PWA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The project is very important to the target group.
<p>GEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The future extension of the industrial zone will benefit from the 8 newly installed transforms to provide the needed electrical power for the new clients.
<p>GIE Tenants Focus Group</p> <ul style="list-style-type: none"> ✓ The project is very important to the target group and beneficiaries and highly addresses their needs.
<p>UNDP Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The implemented projects are very important to the target beneficiaries and addressed a part of their needs. The desalination unit was not operational and was contaminated before the implementation of this project. Electrical and water infrastructure were operating at 70% capacity before the implementation of the project.

Relevance Principal Conclusions

- The activities and outputs of the RCGIE Project highly comply with the relevant national policies and priorities including national development plan, national policy agenda and the PA Detailed Needs Assessment (DNA) and Recovery Framework of Gaza Reconstruction. In addition, the RCGIE project complies with PIEFZA, PIEDCO, end beneficiary and target group needs and strategies.
- The objectives of RCGIE project highly correspond to the objectives and strategic directions of the UN Development Assistance Framework (UNDAF) and UNDP Country Project Document (CPD) in addressing Palestinians access to greater economic empowerment, improved livelihoods, access to decent work and food security. In addition, it addresses the EU Single Support Framework 2014-2016 in supporting the private sector and sustainable economic development.
- The activities and output were consistent with the planned outputs; providing operational water, wastewater and electrical infrastructure.
- The projects ultimate outcome is "*Increased resilience and improved wellbeing and livelihood of Palestinians; especially youth in the Gaza strip through reducing dependence of the Palestinian economy on Israel and facilitating improved international trade opportunities, developing an enabling business and investment environment in Palestine, Promoting competitiveness of the industrial sector*". This ultimate outcome could not be evaluated at the time of this assignment since it was conducted at the end of the project implementation. However, it is foreseen that the implemented infrastructure will contribute to providing adequation investment infrastructure and environment in Gaza with reliable sources of electricity (24/7 availability), desalinated water that is proper for human use and manufacturing purposes, reliable wastewater collection system that could sustain increased wastewater flow and enhance security through lighting of GIE during the night. This now-available

infrastructure along with planned projects in the GIE (solar power generation, GIE incentive program, etc.) will form the heart of the economic empowerment in Gaza strip and attract more investors to reside in the GIE.

- The RCGIE project was developed according to needs assessment carried out after the 2014 escalation and address to PIEFZA's request to rehabilitate the GIE. The project is very important to the target groups and subgroups and addresses a part of their needs assessed after the 2014 escalation. The GIE still needs further intervention, as raised by many stakeholders, which are addressed in the recommendations section.

5.2 Efficiency

The efficiency addresses *the extent to which the Project outputs were achieved in an economic and efficient manner*. The Evaluation answers the following questions as per the TOR:

1. Were the financial resources and other inputs efficiently used to achieve results?

Triangulation Analysis
<p>Document Review</p> <p>Yes, financial resource were used efficiently to achieve the results.</p> <ul style="list-style-type: none"> ✓ The financial status of the project was monitored through UNDP's financial monitoring system. ✓ Surplus funds were used in implementing variation orders and installation of new well.
<p>PIEFZA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ Financial resources were efficiently used to serve the needs after the 2014 war.
<p>PIEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ Financial resources and other inputs were efficiently used to achieve the results.
<p>PWA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ PWA has no opinion.
<p>GEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ Yes, the resources were used effectively, and the implemented sub-projects were needed to achieve a continuous power supply and lighting for the industrial zone projects/ clients.
<p>UNDP Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ Financial resource and inputs were used efficiently to achieve the results. UNDP used its own monitoring and tracking system for budget control.

2. Were the activities cost-efficient?

Triangulation Analysis
<p>Document Review</p> <ul style="list-style-type: none"> ✓ The project Activities were cost efficient and were carried out according to UNDP's and donor's guidelines. The cost-efficiency resulted in cost savings that were used in implementing variation orders and the new water well.
<p>PIEFZA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ Activities were cost-efficient and achieved the objectives.
<p>PIEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ Activities were cost efficient.
<p>PWA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ PWA has no opinion.
<p>GEDCO Semi-structured Interview</p>

✓ Yes, Project activities were cost efficient.
GIE Tenants Focus Group ✓ Yes, activities were cost efficient however the further projects should consider electrical connections to all the installed lighting poles.
UNDP Semi-structured Interview ✓ Yes, activities were cost efficient. ✓ All bids were lower than the cost estimates due to the current situation of the contractors. ✓ All VOs were priced, broken-down and analyzed properly.

3. Did the Project implementation follow the agreed timeframe? If not, what factors led to the change or delay in its delivery?

Triangulation Analysis
Document Review The following sub-projects were delayed. ✓ Package #1: Rehabilitation of GIE transformer rooms (8 out of 16) was complete in 158% of the allocated time. ✓ Package # 2: External Lighting was completed in 237% of the allocated time. ✓ Package #3: Rehabilitation and upgrading of the GIE Desalination unit is in the last stages of the project handing over and 178% of the allocated time has passed. ✓ Package # 4: Rehabilitation of Sewage Pump and Water Well is still under implementation. As of October, 2018, 81% of the work has been completed and 256% of the allocated time has passed. ✓ Package # 5: Construction of a water well is still under implementation. As of October, 2018, 82% of the work has been completed and 73% of the allocated time has passed.
PIEFZA Semi-structured Interview ✓ The project implementation was delayed due to multiple reasons including: ○ Material entry rejection from the Israeli authorities. ○ Material entry delays from the Israeli authorities. ○ Security coordination with Israeli authorities to access project sites. ○ Vandalism and theft of construction materials during construction.
PIEDCO Semi-structured Interview ✓ The projects were delayed due to delays and rejections from the Israeli sides on material delivery, security coordination and march of return demonstrations adjacent to the GIE.
PWA Semi-structured Interview ✓ PWA does not have any information regarding the project's timeframe.
GEDCO Semi-structured Interview ✓ The project was delayed due to delays in importing needed equipment and materials.
GIE Tenants Focus Group ✓ GIE tenants were not highly involved in the implementation activities.
UNDP Semi-structured Interview ✓ The implementation of the sub-projects were delayed due to the following reasons ○ Material entry delay and rejection from the Israelis. ○ Security coordination and access denial from the Israelis. ○ Current economic condition in Gaza and the financial situation of contractors. ○ Variation orders. ○ Vandalism and theft of construction materials from the site.

4. Was the Project implemented in the most efficient way compared to alternatives?

Triangulation Analysis
<p>Document Review</p> <ul style="list-style-type: none"> ✓ UNDP consulted with relevant stakeholders to ensure efficient design of the sub-projects.
<p>PIEFZA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The project was implemented in the most efficient way.
<p>PIEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The project was implemented in the most efficient way compared to the alternatives.
<p>PWA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The water wells were implemented according to the design opinion provided by PWA.
<p>GEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ Yes, the project was implemented in the most efficient way. ✓ Currently, electrical power from the main network is the most reliable power source available in Gaza. ✓ Solar PV power generation systems would add another power resource at certain times, but the mains power network would still be the most reliable electrical power source.
<p>GIE Tenants Focus Group</p> <ul style="list-style-type: none"> ✓ Yes, the project was implemented in the most efficient way compared to alternative. However, GIE tenants recommend future projects to include improving other infrastructures such as combined sewer separation, industrial wastewater separation, and stormwater handling.
<p>UNDP Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ Yes, project was implemented in the most efficient way under the existing constraints and circumstances.

5. To what extent have the interventions been implemented/ coordinated with appropriate and effective partnership and synergies? What has been the nature and added value of these partnerships?

Triangulation Analysis
<p>Document Review</p> <ul style="list-style-type: none"> ✓ The project activities were implemented in coordination with PIEFZA, PIEDCO, PWA, PENRA, GEDCO and other relevant stakeholders. Both PWA and GEDCO were considered as implementation partners. ✓ The implementation partners provided some technical expertise during the project implementation.
<p>PIEFZA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The coordination with PIEFZA was throughout the stages of the project. No actual delegation to PIEFZA was given in project planning, project approach, decision making, design and tendering. ✓ PIEFZA's coordination during the implementation was directly with UNDP and PIEFZA staff did not communicate directly with the contractors. ✓ PWA was only consulted throughout the project and did perform as an actual implementation partner. For example, PWA representatives were not present in the project handovers. The project was coordinated with PWA for technical evaluation, papers work and permits only. ✓ GEDCO and PENRA were consulted during the project design and implementation of the project.
<p>PIEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ UNDP and PIEDCO coordinated project activities during the project planning and daily coordination occurred during the implementation. ✓ Coordination with PWA and GEDCO was carried out as needed.

<p>PWA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The project was coordinated with PWA only during the implementation; more coordination would have been needed during the planning of the project.
<p>GEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The works have been fully coordinated with GEDCO experts during the implementation. ✓ More coordination was needed during the project planning and material approval.
<p>GIE Tenants Focus Group</p> <ul style="list-style-type: none"> ✓ GIE tenants were consulted during the needs assessment stage and not much coordination occurred during the project planning and implementation.
<p>UNDP Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The project was coordinated with the relevant stakeholders including PIEFZA, GEDCO, PENRA, PWA and PIEDCO as needed and as UNDP regulations allowed.

6. Did UNDP and its implementing partners have adequate technical expertise/capacity to implement the different Project components?

Triangulation Analysis
<p>Document Review</p> <ul style="list-style-type: none"> ✓ UNDP/PAPP is responsible for the overall implantation of the project and monitoring the quality of the implementation. The UNDP project staff included <ul style="list-style-type: none"> ○ Engineering analyst ○ Programme analyst ○ Electrical Engineer ○ Programme Manager ○ Resident Site Engineer ○ Project Assistance ○ HR Project Assistance ○ Procurement Assistance ✓ The electrical transformers project was implemented in close cooperation between PIEFZA, PIEDCO, PENRA, GEDCO and UNDP. ✓ Water and wastewater components were implemented in coordination between PIEFZA, PIEDCO and PWA. ✓ An international desalination expert carried out the assessment of the desalination unit.
<p>PIEFZA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ Generally, the UNDP provided adequate technical expertise and capacity to carry out the project activities. However, some of the specialized technical capacity of the staff will benefit from further upgrading. ✓ Changes of staff during the project implementation was a weakness.
<p>PIEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ PIEDCO does not have the capacity to assess the technical expertise of UNDP.
<p>PWA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ PWA was unable to judge the technical expertise of UNDP and implementing partners.
<p>GEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ Yes, UNDP had adequate technical knowledge and experience in implementing such projects.
<p>GIE Tenants Focus Group</p> <ul style="list-style-type: none"> ✓ Yes, UNDP had adequate technical expertise during the project.
<p>UNDP Semi-structured Interview</p>

- ✓ The UNDP provided adequate technical staff within UNDP and donor policies and regulations.

Efficiency Principal Conclusions

- Financial resources were used efficiently in achieving the results.
- UNDP followed its procurement and financial procedures in monitoring and managing this project that involved attracting best prices from the contractors, monthly budget update on the sub-projects and the use of surplus funds for the implementation of the additional infrastructure, e.g. new well.
- Due unavailability of infrastructure as-built drawings and funding use constrains; some of the supplementary works to the sub-projects was not implemented under RCGIE including
 - Upgrading the inlet pipe to the desalination plant affecting the production capacity of the plants.
 - Connecting all the lighting poles to feed power.
- The implementation of the sub-projects was according to the planned timeframe due to:
 - Security situation in the GIE and access denial by Israel.
 - Material delivery and rejection by Israel.
 - Border closure.
 - Financial capacity and status of the contractors.
 - Variation orders.
 - Vandalism and theft of construction materials from the site.
- This project involved many stakeholders. UNDP coordinated with relevant stakeholders during the project life-cycle as needed. Daily coordination between UNDP, PIEDCO and PIEFZA occurred during the implementation of the sub-projects.
- The participation of PIEFZA, PIEDCO and GEDCO increased the sense of project ownership and trust of UNDP's technical capabilities. Other stakeholders and GIE tenants' effective involvement on the project life-cycle was limited to being informative or consultative.
- UNDP had adequate technical expertise, capacity and project management system to implement the project components. However, the technical capacity of the PIEFZA staff could hinder their effective participation in during the whole project life cycle. UNDP staff during the construction of the sub-projects was limited according the donor's guidelines. Inadequate local desalination expertise led to hiring an international expert.

5.3 Effectiveness

The effectiveness concerns *the extent to which the Project attains its stated objectives, outcomes and outputs*. The Evaluation answers the following as per the TOR:

1. To what extent were the expected results achieved / are likely to be achieved against the objectives and indicators?

<u>Triangulation Analysis</u>
<p>Document Review</p> <ul style="list-style-type: none"> ✓ All planned activities were implemented or being implemented. ✓ The project outputs are likely to provide operational. <ul style="list-style-type: none"> ○ electrical transformers and lighting infrastructure. ○ wastewater pumping system. ○ water wells and desalination unit.
<p>PIEFZA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ PIEFZA's role did not include monitoring the project against indicators. The project results are likely to be achieved against the UNDP's objectives and indicators.

<p>PIEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The expected results are likely to achieve the project objectives. ✓ PIEDCO did not establish indicators for this project.
<p>PWA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ PWA didn't establish indicators to monitor the project results. ✓ The project is expected to achieve its objectives.
<p>GEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The expected results were fully achieved.
<p>GIE Tenants Focus Group</p> <ul style="list-style-type: none"> ✓ The expected results are highly likely to be achieved.
<p>UNDP Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The expected results are highly expected to achieve the objectives. The project progress towards achieving the outputs was monitored throughout the output indicators. ✓ UNDP followed the UNDPs and Donor project monitoring procedures that included the annual progress report, risk log monitoring in Atlas, etc.

2. How effective was the Project approaches in the achievement of the expected results? Which components of the Project approaches require modifications?

Triangulation Analysis
<p>Document Review</p> <ul style="list-style-type: none"> ✓ The Project management followed the results-based management (RBM) principles.
<p>PIEFZA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The project approaches were effective however there were some challenges to the achievement of the project results. These challenges included material entry rejection and delays, inaccessibility of project locations due security reasons, vandalism, etc. ✓ Coordination with PIEFZA was limited to the project implantation stage and did not use PIEFZA's expertise for example: <ul style="list-style-type: none"> ○ Designs and tender documents were not reviewed by PIEFZA's engineers. ○ PIEFZA was not involved in the procurement process of the projects. ✓ Components of the project approaches require that require modifications are: <ul style="list-style-type: none"> ○ Coordination with stakeholders during all project stages. ○ Construction material delivery planning (making sure that materials are delivered for the project ahead of time to avoid delays).
<p>PIEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The project approaches were effective in achieving the expected results.
<p>PWA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ PWA was unable to judge the project approaches as they were involved during the implementation only. ✓ More coordination with PWA during all the project stages is needed.
<p>GEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The project approaches were highly effective in the achievement of the expected results. However, the following concerns should be taken into consideration: <ul style="list-style-type: none"> ○ More coordination with GEDCO is needed during project planning. ○ GEDCO should participate in approving the electrical components / materials for the contractor. ○ Sept down transformers with lower loss should be installed instead of the already installed high losses transforms.

<ul style="list-style-type: none"> ○ SCADA parts should be supplied and installed in order to finalize the project. ✓ Spare parts for the different electrical components should be available with future projects to insure quick maintenance and operation in case of malfunction or damage.
<p>GIE Tenants Focus Group</p> <ul style="list-style-type: none"> ✓ The project approaches were effective in achieving the results. However, in future projects, more participation from the tenants during all project stages would greatly enhance the sense of ownership of the target group.
<p>UNDP Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The project followed results-based management (RBM) principles aimed at achieving the intended goal and involved monitoring and evaluation tools such as risk management tool.

3. What were the major factors influencing the achievement or non-achievement of the objectives?

Triangulation Analysis
<p>Document Review</p> <ul style="list-style-type: none"> ✓ Delays during project implementation. ✓ All stainless-steel item (pipes and rods) that are used for desalination and rehabilitation activities were denied access by the Israeli Authorities. Thus, the materials were supplied from the local market.
<p>PIEFZA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ Lack of comprehensive background information and assessment studies and the use of proper PIEFZA expertise. In the case of the desalination unit, this has led to the installation of desalination systems with a total capacity higher than the capacity of the capacity of the raw water inlet pipe. Therefore, the desalination units can be operated alternatively. ✓ Not all the lighting poles were connected to power feed lines.
<p>PIEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The project objectives are likely to be achieved. ✓ Material delivery and security coordination delayed the projects.
<p>PWA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ PWA has no opinion.
<p>GEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The participation of all relevant parties managed to finish most of the activities on time and with required specifications and requirements. ✓ The SCADA and automation parts of the main switch was not finished because the required equipment's was not imported yet.
<p>GIE Tenants Focus Group</p> <ul style="list-style-type: none"> ✓ Some of the tenant, especially food manufacturers, have desalination units inside their plants and are currently evaluating the feasibility of buying the desalinated water from PIEDCO. However, the tenants foresee that the cost of service could will influence their decision of buying the desalinated water.
<p>UNDP Semi-structured Interview</p> <ul style="list-style-type: none"> ➤ All the objectives of the projects were achieved, some of the supplementary components were not implemented at the time of the evaluation. The supplementary components including SCADA and communication modules for water wells and transformers, upgrading the capacity of the inlet pipe to the desalination plant and connecting all the lighting poles to power sources. The following factors could influence the implementation of these components <ul style="list-style-type: none"> ○ Border closure and material delivery delay and rejection by the Israelis. ○ Complicated responsibility division between PIEDCO and PIEFZA

- The involvement in of many players in the management of GIE
- Unavailability of existing infrastructure as built drawings
- Funding use constrains

4. How has the Project contributed to providing adequate investment environment in the targeted infrastructure activities?

Triangulation Analysis
<p>Document Review</p> <ul style="list-style-type: none"> ✓ The project provides the necessary infrastructure (electricity, water and sewage) for GIE tenants which help in a more stable operation and encourages future tenants. ✓ The project contributes to enhance the livelihoods of the existing GIE's 2000 laborers and encourages futures ones. ✓ The project effectively utilizes the spaces for the planned future investments and provides safety inside and outside the premises. ✓ The project is expected to pave the road for more sustainable growth for industries and encouraging more local and may be future international investments into the Gaza Strip.
<p>PIEFZA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The project provides water, wastewater, electricity and security infrastructure for the current GIE tenants. Expansion of the implemented infrastructure would be necessary to provide services for future expansion.
<p>PIEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The project provided the needed water, wastewater, electricity and lighting infrastructure will largely enhance the investment environment and attract new investors.
<p>PWA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ PWA has no opinion.
<p>GEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ Electrical power for the future projects/clients is available through the project.
<p>GIE Tenants Focus Group</p> <ul style="list-style-type: none"> ✓ The project provides the much-needed reliable infrastructure to improve the services received by the tenants. In addition, the capacity of the infrastructure implemented allows for future expansion of the tenants.
<p>UNDP Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The project approaches were effective in achieving the expected results. The approached included involving all partners, project planning according needs assessment, procurement and evaluation procedures. However, there were some limitation that affected the implementation of the project including the current Palestinian political situation, security situation near the Israeli border, the current economic situation in Gaza and the financial situation of the contractors.

Effectiveness Principal Conclusion

- It is highly possible that the expected results are to be achieved according to the project objectives after the project becomes fully operational for adequate time.
- The Project management followed the results-based management (RBM) principles which focus on achieving the intended results. RBM itself is a monitoring and evaluation tool that tracks project advancement, predicts the non-achievement risks and sets up mitigation measures.
- More participation by all stakeholders in all project stages is recommended.

- Some of the supplementary components were not implemented at the time of the evaluation. The supplementary components including SCADA and communication modules for transformers, upgrading the capacity of the inlet pipe to the desalination unit and connecting all the lighting poles to power sources. The following factors could influence the implementation of these components
 - Border closure and material delivery delay and rejection by the Israelis.
 - Complicated responsibility division between PIEDCO and PIEFZA.
 - The involvement in of many players in the management of GIE.
 - Unavailability of existing infrastructure as built drawings.
 - Funding use constrains.
- The project provided the necessary water, wastewater and electrical infrastructure that allows for the expansion of the current tenants, attracts new tenants to the GIE and allows accounts for the foreseen needs in the next 5-10 years. However, not all investors needs have been fulfilled. It is recommended that future projects include
 - Paving of secondary roads.
 - Separating combined sewers and upgrading stormwater management.
 - On-site treatment of industrial wastewater.

5.4 Impact

Impact concerns *the extent to which the Project has produced positive and negative changes, directly or indirectly, intended or unintended*. The Evaluation answers the following questions as per the TOR:

1. What were the main impacts (positive/negative, expected/unexpected) as perceived by the different actors and beneficiaries of the project?

Triangulation Analysis
<p>Document Review</p> <ul style="list-style-type: none"> ✓ The project aims at providing operational: <ul style="list-style-type: none"> ○ Electrical infrastructure. ○ Water infrastructure. ○ Wastewater infrastructure.
<p>PIEFZA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The project will provide operational electrical, water, wastewater, and security infrastructure to the GIE tenants. ✓ The brine from the desalination could have adverse effects on the environment and municipal wastewater treatment.
<p>PIEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The project will provide clean water and efficient sanitary sewers to the GIE tenants. ✓ No negative impacts are foreseen for the project.
<p>PWA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ PWA is not aware of GIE needs, therefore they were not able to foresee the project's impacts.
<p>GEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The project will increase the ability of supplying higher amperage to the tenants and supply new tenants with needed power.
<p>GIE Tenants Focus Group</p> <p>The implemented projects have not been fully operated, however the tenants foresee the following main impacts</p> <ul style="list-style-type: none"> ✓ Desalinated water will be available to the tenants to buy from PIEDCO. ✓ Enhanced electrical power service including: <ul style="list-style-type: none"> ○ more stable voltage.

- stable and consistent electrical supply hours.
- ability for tenants to receive higher electrical amperage which will facilitate factories expansion.
- ✓ Enhanced security with the lighting of the GIE.
- ✓ Better dependence on the existing sewage system.

UNDP Semi-structured Interview

- ✓ The project provided operational essential water, wastewater and electrical infrastructure that replaced infrastructure that was damaged during the 2014 escalation.
- ✓ The project provided essential infrastructure that supports the expansion of GIE and economic empowerment of the tenants.

2. What were the notable immediate impact observed on the targeted beneficiaries and likely long-term impact of the Project?

Triangulation Analysis

Document Review

- ✓ The immediate impacts of the project are as follows
 - Ensuring that GIE is fully operational and works as a catalyst for industrial development.
 - Enable Palestinian utilities and agencies to provide necessary services to the GIE, including water, wastewater and storm water disposal, electrical power and access roads.
- ✓ The long-term impacts of the project are as follows
 - Protection of the Palestinian presence and development of the main Palestinian industrial zone in the Gaza strip;
 - Improvement of the GIE infrastructure that will provide solid basis for a sustainable economic development for many Palestinians in the Gaza strip;
 - Preservation of permanent job opportunities related to the existing local business and creation of new employment;
 - Increase of businesses' financial income and local investments and thus reduction of the businesses' migration from Gaza strip to the West Bank.

PIEFZA Semi-structured Interview

- ✓ Immediate impacts include
 - Increased availability of clean water, electricity and wastewater collection services.
 - Increased security during night time.
- ✓ Long-term impact
 - Attract more tenants to move to GIE.
 - Increase tenant's operation hours
 - Increasing number of laborers
 - Salary increases
 - Larger profit margin to GIE tenants

PIEDCO Semi-structured Interview

- ✓ Improved water, electrical and sanitary sewers service.
- ✓ Long-term impacts could include extra operation hours, increasing number of labors, decreased dependence on external water sources and owned desalination units. The project helps in providing the infrastructure for the HIE incentive program and solar energy project.

PWA Semi-structured Interview

- ✓ PWA is not aware of GIE needs, therefore they were not able to foresee the project's impacts.

GEDCO Semi-structured Interview

- ✓ The project is essential for the new extension for the industrial zone (the 2nd extension). The 3rd future extension must have a new project to provide the needed electrical power and external lighting network.

<p>GIE Tenants Focus Group</p> <ul style="list-style-type: none"> ✓ The immediate impact observed by the target group included <ul style="list-style-type: none"> ○ Availability of desalinated water, however the high rate of water was unexpected. ○ Lighting of the GIE ✓ The long-term impact of the implemented infrastructure could include <ul style="list-style-type: none"> ○ Increasing operation hours or factory expansion ○ Increasing laborer pay rates ○ Increasing the number of employees ○ Better profitability and competition ○ Attractions of other factories to relocate to GIE
<p>UNDP Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The expected immediate impacts include <ul style="list-style-type: none"> ○ Reduction of operation and maintenance costs due to reliable electrical, water and sanitary sewer service. ○ Providing a safer work environment by lighting the GIE. ○ Providing access to clean water and enhancing work environment to laborers including women. ✓ The expected long-term impacts include <ul style="list-style-type: none"> ○ Providing infrastructure for future expansion of GIE that includes approximately 18 MW of electricity, 80 m³/hr desalinated water, sewage pumping at high capacity and lighting infrastructure for current and future use. ○ Reducing the chances for flooding during storms and thus reducing the losses to the tenants. ○ Economic empowerment of the GIE as providing reliable resources will attract tenants, increase operation capacity and better profitability and competitiveness of the tenants.

3. What real difference has the Project made to the beneficiaries?

Triangulation Analysis
<p>Document Review</p> <ul style="list-style-type: none"> ✓ Electrical infrastructure will be available to allow for GIE expansion ✓ Clean water will be available for GIE tenants ✓ Working wastewater infrastructure will be available.
<p>PIEFZA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ GIE tenants will stop using their own desalination units and will use the desalinated water supplied by the desalination plants upgraded in this project. ✓ GIE tenants may increase operation hours and number of laborers ✓ GIE tenants may accomplish larger financial savings on resources.
<p>PIEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The project will enhance PIEFZA's capacity to provide clean water to the beneficiaries. ✓ The project will provide working electrical and sewage infrastructure to the beneficiaries. ✓ The working infrastructure will enhance the working environment.
<p>PWA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ PWA is not aware of GIE needs, therefore they were not able to foresee the project's impacts.
<p>GEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The new transformers will enable GIE tenants to increase their power demands.
<p>GIE Tenants Focus Group</p> <ul style="list-style-type: none"> ✓ Some tenants noticed that electrical voltage fluctuation has decreased which helps in avoiding
<p>UNDP Semi-structured Interview</p>

- ✓ The project provides more reliable infrastructure for GIE that allows for economic empowerment, enhanced livelihood and opportunities and decent livings of working laborers

4. Has the project contributed to improving the social and living conditions of the targeted groups? In what way whether current or in future?

Triangulation Analysis
<p>Document Review</p> <ul style="list-style-type: none"> ✓ The project contributes to improving the social and living conditions of the targeted groups through <ul style="list-style-type: none"> ○ Providing water and wastewater infrastructure ○ Electrical infrastructure ○ Operational lighting
<p>PIEFZA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The project may lead to increased profits to GIE tenants ✓ The project may lead to increased wages to GIE laborers, which will improve the living and social conditions of the laborers. ✓ The lighting of the GIE will increase the feel of the safety and security of the GIE tenants especially during night time.
<p>PIEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The project might help the GIE tenants to increase their working hours which will increase the number of labors and raise salaries which might improve the living conditions of the target group. ✓ The project will help PIEDCO in attracting more investors to GIE which will increase the labor and enhance living conditions of labors.
<p>PWA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ PWA is not aware of GIE needs, therefore they were not able to foresee the project's impacts.
<p>GIE Tenants Focus Group</p> <ul style="list-style-type: none"> ✓ The project is expected to contribute to improving the social and living conditions of the laborers by providing access to clean water and reliable sanitary sewer system, increasing employment and rates.
<p>UNDP Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ Yes, the project provided the necessary clean water, sanitary sewer and electrical infrastructure that improve the work environment

5. Does the project have any adverse social or environmental effects that should be considered in future projects and how?

Triangulation Analysis
<p>Document Review</p> <ul style="list-style-type: none"> ✓ No adverse social or environmental effects were concluded from the documents review.
<p>PIEFZA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ Brine from the desalination plant is expected to increase the salinity of the sewer sent to the municipal wastewater collection system.
<p>PIEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ Brine from the desalination plant should be properly treated and disposed.
<p>PWA Semi-structured Interview</p>

✓ PWA is not aware of GIE needs, therefore they were not able to foresee the project's impacts.
<i>GEDCO Semi-structured Interview</i>
✓ No notable adverse social or environmental effects were noted.
<i>GIE Tenants Focus Group</i>
✓ No notable adverse social and environmental effects were noted.
<i>UNDP Semi-structured Interview</i>
✓ No notable social or environmental effects. However, it is recommended that future projects include pretreatment of the desalination brine and industrial wastewater before sending the municipal wastewater treatment plant as a best management practice.

6. Has the project contributed to enhancing human rights including those for women? How such project which focuses on improving the economic infrastructure can support gender equality and human rights standards?

Triangulation Analysis
<i>Document Review</i>
✓ The project will serve the GIE tenants and their laborers which include around 30 women out of the 2000 laborers.
<i>PIEFZA Semi-structured Interview</i>
✓ The project is expected to improve the working conditions of the working women in at GIE (around 30) with increased access to clean water, proper sanitary sewer, and enhanced safety and security conditions.
✓ The project may lead to increased operation hours for the GIE and further expansion and development, therefore increasing opportunities for women.
✓ The project may lead to increased wages to GIE laborers and equality
<i>PIEDCO Semi-structured Interview</i>
✓ GIE tenants' expansion and attraction of new developers to GIE could increase the number of labors including women.
✓ The project helps in providing clean water, sanitary sewers and lighting which helps in enhancing human rights of the labors.
<i>PWA Semi-structured Interview</i>
✓ PWA is not aware of GIE needs, therefore they were not able to foresee the project's impacts.
<i>GIE Tenants Focus Group</i>
✓ The project provided access to clean water and proper sanitation to laborers including women.
✓ The project could contribute to increased employment, thus more opportunities for women.
✓ The project provides lighting infrastructure which improves the security for laborers including women.
<i>UNDP Semi-structured Interview</i>
✓ The project serves all the GIE laborers including women.
✓ Such project helps in supporting the manufacturing industries and increasing the employability thus more opportunities for women.
✓ The project supports the human rights of the labors in providing safe work environment than includes clean water, proper sanitary sewers and safe electrical supply.
✓ Some industries in GIE such as sewing and food industries have higher proportion of women laborers, such project provides economic empowerment to these industries.

7. How the project contributed to the protection of vulnerable groups, target beneficiaries and end users of existing industries?

Triangulation Analysis
<p>Document Review</p> <ul style="list-style-type: none"> ✓ The project moved the electrical switchgear to a safer location. ✓ The project provides a reliable source of clean water ✓ The project provides lighting of the GIE to enhance security
<p>PIEFZA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The lighting project is expected to improve the security conditions for workers and existing industries. ✓ The relocation of the electrical switchgear to a safer and more accessible location is expected to protect electrical operators from Israeli snipers.
<p>PIEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The electrical switchgear was moved to a safer and more accessible location. ✓ The lighting of the GIE will provide a safer work environment especially at night.
<p>PWA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ PWA is not aware of GIE needs, therefore they were not able to foresee the project's impacts.
<p>GIE Tenants Focus Group</p> <ul style="list-style-type: none"> ✓ The project provided lighting at the GIE to increase the security. ✓ The project moved the electrical switchgear to a safer location.
<p>UNDP Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The project aims at providing clean water, sanitary sewers and enhanced security to GIE laborers including those of vulnerable groups.

8. Are there any experiences that should be highlighted, e.g. case studies, stories, and best practices?

Triangulation Analysis
<p>Document Review</p> <ul style="list-style-type: none"> ✓ None can be highlighted from the document review.
<p>PIEFZA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ Since the project have not been fully operated yet, there are no case studies can be highlighted.
<p>PIEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ One of the GIE tenants already connected to the desalinated water networks. ✓ Juice factories are considering expanding and adding new process lines since they have the ability to receive desalinated water.
<p>GEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ Sept down transformers with lower loss should be installed instead of the already installed high losses transforms.
<p>GIE Tenants Focus Group</p> <ul style="list-style-type: none"> ✓ Some of the food manufacturing plants foresee that using own desalination units are more feasible than buying water from PIEDCO at 1.9\$/m³.
<p>UNDP Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ One of the GIE tenants is a sewing company that employs a large number of women and heavily relies on electricity as resource. The electrical supply had many interruption and cuts before the implementation of this project. The boilers used to provide steam for irons the needed

approximately an hour to become fully operational after each power cut. This leads to reducing the actual production hours of the laborers and increased overhead on the product. This project helps in providing adequate power supply that helps in resolving this problem.

- ✓ Another plant is a yogurt manufacturing plant. Its processes included thermal pasteurization of the milk. The boilers for the pasteurization system have suffered from precipitating chemicals due to the salinity of the water. This project provides desalinated water with much less salinity that reduces the amount precipitates on boilers.

Impact Principal Conclusions

- Limited direct positive impact has been already felt by the beneficiaries since this evaluation was conducted at the end of the project implementation.
- The immediate positive impacts that are expected to be felt by the beneficiaries are:
 - Improved electrical supply
 - Access to desalinated water that is adequate for human and manufacturing use.
 - Enhanced capacity of wastewater system and flooding prevention.
 - Enhance lighting of GIE during night time.
- The expected positive long-term impacts include increased reliability on existing utilities thus
 - Protection of the Palestinian presence and development of the main Palestinian industrial zone in the Gaza strip;
 - Improvement of the GIE infrastructure that will provide solid basis for a sustainable economic development for many Palestinians in the Gaza strip;
 - Preservation of permanent job opportunities related to the existing local business and creation of new employment;
 - Increase of businesses' financial income and local investments and thus reduction of the businesses' migration from Gaza strip to the West Bank.
 - Increasing operation hours and employment rates including those for women and vulnerable groups.
 - Increasing pay rate for laborers including those of women and vulnerable groups
 - Lower utility overheads for the business owners thus better profitability, competitiveness and market power.
- The adverse impacts of the implemented projects include desalination brine disposal to the municipal wastewater collection system which could affect the performance of the treatment plant if not diluted. In addition, if the GIE tenants expand, it could lead to increased industrial wastewater load to the municipal wastewater system.
- The project will help in enhancing the social, living conditions and human rights of the workers by providing access to safe and clean water, proper sanitary sewer, safer electrical supply and safe premises.
- The RCGIE provided necessary infrastructure for future development projects in the GIE such as the solar power project and GIE incentive program.

5.5 Sustainability

Sustainability evaluates to what extent the Project benefit are likely to continue after donor funding is ended. The valuation relates to the following questions as per the TOR.

1. To what extent did the benefits of a Project or project continue after donor funding ceased?

Triangulation Analysis

Document Review

- ✓ UNDP evaluate the risks of the project sustainability and proposed mitigation measures.

✓ The project was implemented in collaboration and partnership with the PIEDCO and PIEFZA who operate the GIE.
PIEFZA Semi-structured Interview ✓ PIEFZA will operate the project components to provide services to GIE tenants.
PIEDCO Semi-structured Interview ✓ It is highly likely that the benefits of the project will continue after donor's funding has ended.
PWA Semi-structured Interview ✓ PWA is not responsible for operating the project. However, PWA is responsible for monitoring water quality of the wells and desalination units.
GEDCO Semi-structured Interview ✓ The project benefits are likely to continue after funding is ceased.
GIE Tenants Focus Group ✓ The benefits from the project are highly expected after the funding has ceased.
UNDP Semi-structured Interview ✓ It is highly likely that the services will continue after the donor's funding has ceased.

2. To what degree did the Project consider the existing structure or resources to enhance the sustainability after the end of the intervention?

<u>Triangulation Analysis</u>
Document Review <ul style="list-style-type: none"> ✓ The project planning addressed comprehensively the sustainability aspects including social, institutional, and environmental sustainability. ✓ The project changed the location of the existing electrical switchgear to a more accessible and safer location. The new location allows for easier maintenance. ✓ The project considered planned future projects in the same area, such as the Rooftop PV systems financed by the World Bank that will provide 6.14 MW/hp. ✓ The project included carrying out training for operators and maintenance technicians on all project components. ✓ The project included the development of an Operation and Maintenance Manual for all the implemented sub-projects.
PIEFZA Semi-structured Interview ✓ Funds for the operation of the project components will come from PIEFZA's budget.
PIEDCO Semi-structured Interview ✓ The project highly considered the existing structures and resources.
GEDCO Semi-structured Interview ✓ The electrical switchgear was moved to a safer and more accessible location.
GIE Tenants Focus Group ✓ The project considered the existing structure and resources to enhance the sustainability after the end the intervention.
UNDP Semi-structured Interview <ul style="list-style-type: none"> ✓ The project largely considered the existing structure, resources and challenges in enhancing the sustainability of the project by: <ul style="list-style-type: none"> ○ Carrying out training for PIEFZA, PIEDCO and relevant parties' operators on all implemented projects. ○ UNDP has hired an external consultant to develop an operation and maintenance manual for all project components.

- The project provides need resources (chemical, spare parts, technical support, etc.) for operating the utilities for the next 6 to 12 months.
- The transformers project considered planned alternative sources of electricity such as on-grid solar power and installed bidirectional meters and proper inlet requirements to the transformers.
- Installed energy efficient lighting.

3. Do local community and beneficiaries support the interventions that were carried out by UNDP and the implementing partners? How national ownership is materialized?

Triangulation Analysis
<p>Document Review</p> <ul style="list-style-type: none"> ✓ The project was supported by the beneficiaries, PIEDCO and PIEFZA. ✓ The owner of the implemented projects is PIEFZA, which a subsidiary of the Palestinian National Authority.
<p>PIEFZA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ PIEFZA sees this project as a strategic project that will greatly enhance the accessibility to water, electricity, sanitary sewer and security infrastructure. ✓ The owner of the implemented sub-projects is PIEFZA; a subsidiary of the Palestinian National Authority.
<p>PIEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The beneficiaries support the interventions that were carried out by UNDP.
<p>GEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ GEDCO fully supported all the activates carried by the UNDP and the different contractors implementing the projects.
<p>GIE Tenants Focus Group</p> <ul style="list-style-type: none"> ✓ The tenants highly support the implement projects and have recommendation for future projects.
<p>UNDP Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The beneficiaries and GIE tenants highly support the implemented projects as it addresses their needs.

4. What is the likelihood that the operation, maintenance and repair of the constructed or recovered utilities being financed at the local and national level for continuity of the series after the end of the project?

Triangulation Analysis
<p>Document Review</p> <ul style="list-style-type: none"> ✓ None can be highlighted from the document review.
<p>PIEFZA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ PIEFZA will operate the project components to provide services to GIE tenants and will use PIEFZA's financial resources for the operation and maintenance of the implemented utilities.
<p>PIEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ PIEDCO will operate, maintain and repair the constructed utilities and ensure service continuity.
<p>PWA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ PWA does not currently have the logistic capabilities to perform periodic water sampling and monitoring.
<p>GEDCO Semi-structured Interview</p>

<ul style="list-style-type: none"> ✓ GEDCO will be fully responsible for the maintenance and repair for the switch gear, MV lines, and transforms components. ✓ The lack of some parts would influence some maintenance and repair actives made by GEDCO. ✓ The low voltage components of the project are the responsibility of the industrial zone PIEDCO. All operation, maintenance and repair of those components will be financed and done through PIEDCO.
<p>GIE Tenants Focus Group</p> <ul style="list-style-type: none"> ✓ PIEFZA is responsible for the operation and maintenance of the implemented projects through their budget from Palestinian Government.
<p>UNDP Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ PIEFZA is responsible for operating and maintain "off-site" structures the are implemented under this project.

5. What were the major factors which influenced the achievement or non-achievement of sustainability of the Project? Specify the role of GIE operator in connection with sustainability?

Triangulation Analysis
<p>Document Review</p> <p>The following factors could adversely affect the achievement of the project sustainability</p> <ul style="list-style-type: none"> ✓ Israel does not permit entry of sufficient goods and inputs into the Gaza Strip to allow the project activities to be implemented. ✓ Hostile activities. ✓ Instability of internal political conditions.
<p>PIEFZA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ PIEFZA will operate and maintain the implemented utilities. PIEFZA receives its annual budget from the Palestinian Government, unavailability of sufficient funds to the operation and maintenance could hinder the sustainability of the project.
<p>PIEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ A new escalation with the Israeli side could threaten the sustainability of the project if they destroyed again.
<p>PWA Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ Due to the current political situation and the split between Gaza and the West Bank, PWA does not have the logistic capabilities to conducted routine inspection and testing on implemented water components.
<p>GEDCO Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The low voltage loads of each transform must not increase the 90% threshold of the rated maximum power of the transformer. ✓ The availability of the spare parts will negatively influence the sustainability of the project. GIE should provide spare parts for all the electrical components of the project. ✓ GEDCO periodically test and maintain the switch gears and transformers under operation.
<p>GIE Tenants Focus Group</p> <ul style="list-style-type: none"> ✓ At this time, the achievement of the sustainability cannot be evaluated since the tenants have not started to receive full service. However, the tenants foresee that the high cost of service could reduce their demand to the provided services and thus could adversely affect the project sustainability.
<p>UNDP Semi-structured Interview</p> <ul style="list-style-type: none"> ✓ The following factors could influence the achievement of sustainability of the project

- The security situation at the GIE and its proximity to the Israeli border. The sustainability of the project could be influenced if an escalation occurs and results in damages in the constructed facility.
- The technical capacity of GIE operator (PIEFZA), which is understaffed, has limited technical knowledge and budget.
- Worsening economic situation in Gaza Strip and the lack of supportive economical system could lead to business closure, laborers lay off and decreased laborer rates.
- Unclear governance system and current Palestinian division (between the West Bank and Gaza), could lead to loss of responsibilities, budget and salary cuts to PIEFZA.

Sustainability Principal Conclusions

- There is a strong interest from PIEFZA and PIEDCO in the project and the project was highly supported by the tenants, therefore it is highly possible that the benefits of the projects will continue after the funding has ended.
- UNDP largely considered the existing structures and resources to enhance the sustainability of the project by addressing the sustainability components as follows:
 - Human Resource: the operators and relevant parties were trained on operating all implemented sub-projects and
 - Financial and managerial: all the implemented projects were "off-site" infrastructure; therefore, it is PIEFZA's responsibility to operate and maintain these infrastructures.
 - Operational: UNDP provided necessary materials and spare parts to operate the implement utilities for the next 6-12 months and an external consultant was hired to develop an operation and manual reference manual.
- There is a number of factors that could influence the sustainability of the implemented sub-projects including:
 - Beneficiaries interest in the project could positively enhance the project's sustainability.
 - Carried out training and the developed operation and maintenance manual will positively influence the sustainability of the project.
 - The security situation at the GIE and its proximity to the Israeli border. The sustainability of the project could be adversely influenced if an escalation occurs and results in damages in the constructed facility.
 - The technical capacity of GIE operator (PIEFZA), which is understaffed, has limited technical knowledge and budget could adversely affect the project sustainability.
 - Border closers, material delay and rejection that could prevent PIEFZA from obtaining necessary spare parts and consumable in due time could adversely affect the sustainability of the project.
 - Worsening economic situation in Gaza Strip and the lack of supportive economical system could lead to business closure, laborers lay off and decreased laborer rates could hinder the projects sustainability.
 - Unclear governance system and current Palestinian division (between the West Bank and Gaza), could lead to loss of responsibilities, budget and salary cuts to PIEFZA could hinder the project's sustainability.

6 RECOMMENDATIONS

Recommendations regarding each criterion are clearly related to conclusions as follows:

6.1 Relevance

<u>Conclusions</u>	<u>Recommendations</u>
- The activities and outputs of the RCGIE Project highly comply with the relevant national policies and priorities.	- Address other relevant national policies and priorities.
- The objectives of RCGIE project highly correspond with part of objectives and strategic directions of the UNDAF and UNDP-CPD	- Expand future projects to address additional objectives and strategic directions.
- The activities and output were consistent with the planned outputs and included VO's and additional works.	- More benefit can be achieved by efficient financial management.
- The project ultimate outcome could not be qualitative or quantitatively evaluated at the time of this assignment.	- Follow up with the beneficiary and target group 1 year after receiving the service.
- The RCGIE project was developed according to needs assessment carried out after the 2014 escalation.	- Implement projects to address other needs.

6.2 Efficiency

<u>Conclusions</u>	<u>Recommendations</u>
- Financial resources were used to efficiently in achieving the results.	- Adopt similar financial management approach in other projects.
- UNDP followed its procurement and financial procedures in the monitoring and management.	- It is beneficial to verify actual financial status of the contractors.
- Supplementary works were not implemented in this project.	- Implement supplementary works.
- The construction of the sub-projects was delayed.	- Material delivery ahead of time could contribute to avoiding project delays.
- UNDP coordinated with relevant stakeholders during the implementation and coordination during project planning was limited.	- More participation during all project stages could increase the sense of project ownership.
- UNDP and implementation partners had adequate technical expertise but could benefit from specialized technical training	- Conducting specialized training to UNDP and implementing partners could improve the technical capacities of relevant staff.

6.3 Effectiveness

<u>Conclusions</u>	<u>Recommendations</u>
<ul style="list-style-type: none"> - It is highly possible that the expected results are to be achieved according to the project objectives after the project becomes fully operational for adequate time. 	<ul style="list-style-type: none"> - Conduct final evaluation of the project after the utilities have been operational for some time in order to assess the actual status.
<ul style="list-style-type: none"> - The Project management followed the results-based management (RBM) principles which focusing on achieving the intended results 	<ul style="list-style-type: none"> - Adopt similar project approach in future projects.
<p>Project implementation limitations and constrains:</p> <ul style="list-style-type: none"> - Border closure and material delivery delay and rejection by the Israelis. - Complicated responsibility division between PIEDCO and PIEFZA - The involvement in of many players in the management of GIE - Unavailability of existing infrastructure as built drawings - Funding use constrains 	<ul style="list-style-type: none"> - Project implementation approach should be flexible and allows for unforeseen challenges.
<ul style="list-style-type: none"> - The project provided the necessary water, wastewater and electrical infrastructure needed in GIE for in the next 5-10 years. 	<ul style="list-style-type: none"> - Address additional GIE needs.

6.4 Impact

<u>Conclusions</u>	<u>Recommendations</u>
<p>The immediate impacts that are expected to be felt by the beneficiaries are</p> <ul style="list-style-type: none"> - Improved electrical service - Access to desalinated water that is adequate for human and manufacturing use. - Enhanced capacity of wastewater system - Enhance lighting of GIE during night time. 	<ul style="list-style-type: none"> - Support projects in other necessary infrastructure.
<ul style="list-style-type: none"> - On long term, the GIE will benefit from the implanted infrastructure projects. 	<ul style="list-style-type: none"> - Mitigate risks that could influent long-term impacts.
<ul style="list-style-type: none"> - The project will help in enhancing the social, living conditions and human rights of the workers. 	<ul style="list-style-type: none"> - Encourage GIE employers to reflect the benefits this project on the social and living conditions and human rights of their workers.
<ul style="list-style-type: none"> - The RCGIE provided necessary infrastructure for future development projects in the GIE 	<ul style="list-style-type: none"> - Further development projects are necessary to empower the economy.

6.5 Sustainability

<u>Conclusions</u>	<u>Recommendations</u>
<ul style="list-style-type: none"> - There is a strong interest in the project, therefore it is highly possible that the benefits of the projects will continue after the funding has ended. 	<ul style="list-style-type: none"> - Support relevant stakeholders to ensure project sustainability.
<ul style="list-style-type: none"> - UNDP largely considered the existing structures and resources to enhance the sustainability. 	<ul style="list-style-type: none"> - UNDP should monitor and follow up the project sustainability.
<p>There are factors that could adversely influence the sustainability are:</p> <ul style="list-style-type: none"> ➤ The security situation at the GIE and its proximity to the Israeli border. The sustainability of the project could be influenced if an escalation occurs and results in damages in the constructed facility. ➤ The technical capacity of GIE operator (PIEFZA), which is understaffed, has limited technical knowledge and budget. ➤ Border closers, material delay and rejection that could prevent PIEFZA from obtaining necessary spare parts and consumable in due time. ➤ Lack of logistic capabilities of PWA to carry our inspection and monitoring activities. ➤ Worsening economic situation in Gaza Strip and the lack of supportive economical system could lead to business closure, laborers lay off and decreased laborer rates. ➤ Unclear governance system and current Palestinian division (between the West Bank and Gaza), could lead to loss of responsibilities, budget and salary cuts to PIEFZA. 	<ul style="list-style-type: none"> - Mitigation measures should be planned, implemented and monitored to ensure sustainability.

7 LESSONS LEARNED

7.1 Lessons Learned Concerning Relevance

1. Projects are likely to be achieve their goals when they address national policies and priorities and the needs and strategies of the target group.
2. Project stakeholders and implementing partners are likely to be more supportive of a project that addresses their needs.
3. Project ultimate outcome and long-term impacts should be evaluated after the project benefits have been sustained for some a longer time period.

7.2 Lessons Learned Concerning Efficiency

1. Efficient financial management system could lead to cost savings and added benefits.

2. The project implantation was challenging due to the involvement of the many players in the project, security constrains, material delivery delays and rejections and the current financial capacity of the contractors.
3. Involvement of all project stakeholders in all project stages increases the sense of project ownership, ensures smoother project delivery and facilitates knowledge sharing.
4. Available local technical capacities to assess and upgrade desalination units is limited.

7.3 Lessons Learned Concerning Effectiveness

1. Project results are evaluated more accurately after the completion of the project and the benefits have been received.
2. Providing key infrastructure of industries is a key to economic empowerment.
3. Absence of clear responsibilities and proper governance

7.4 Lessons Learned Concerning Impact

1. Impacts can be accurately quantified after the project has been implemented and utilities have been operational for a longer time period.
2. The involvement of the international donors in enhancing the economic infrastructure contributes to empowering the economic sector in Gaza Strip, enhancing social and environmental work conditions of laborers including women and vulnerable groups and ultimately contributes to promoting peace.
3. The intended outputs of a projects are appreciated more when target groups are involved in all project stages.

7.5 Lessons Learned Concerning Sustainability

1. Projects of high interest of the target beneficiaries are likely to be sustainable.
2. Obtaining assurances from the operator on their commitment to carry-out the needed operation and maintenance activities could help them in planning their budget and enhance the sustainability.

8 The success indicators

1. Operational electrical transformers.
2. Operational wastewater system.
3. Operational water wells and desalination unit.
4. Operational external lighting.

The expected long-term success indicators are

1. Increased number of laborers, operation hours and expansion.
2. Increased salaries and profitability.