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

Ref: 01003568
Date: 21 July 2025

Subject: **Water Energy Food (WEF) Nexus in the West Bank (Solar Powered Water Wells in the West Bank), Semi-Annual Progress Report.**

Dear Ms. Husebø,

Reference is made to the agreement between the Norwegian Ministry of Foreign Affairs represented by the Representative office of Norway to the Palestinian Authority and UNDP's Programme of Assistance to the Palestinian People for Water Energy Food (WEF) Nexus in the West Bank, which was signed on 16 December 2024.

I am pleased to submit herewith the financial and semi-annual progress report. The report summarizes the progress of the project from 01 January 2025 until 30 June 2025 and provides an overview of the achievements, challenges, lessons learned, financial status, and the way forward.

I would like to take this opportunity to thank the Representative Office of Norway to the Palestinian Authority for their support through UNDP and look forward to strengthening our partnership in support of the Palestinian people.

Sincerely yours,

DS

DocuSigned by:
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Jaco Cilliers
Special Representative
of the Administrator
UNDP/PAPP

Anja Elise Husebø
Head of Development Cooperation
Representative Office of Norway
to the Palestinian Authority (NRO)

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SEMI-ANNUAL PROGRESS REPORT

Water Energy Food (WEF) Nexus in the West Bank
Solar Powered Water Wells in the West Bank

Donor: Government of Norway

United Nations Development Programme
Programme of Assistance to the Palestinian People

Country: Occupied Palestinian Territory

01 January 2025 – 30 June 2025

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Norwegian Ministry of Foreign Affairs

Reporting Period	01 January 2025 – 30 June 2025
Donor	Government of Norway
Country	occupied Palestinian territory.
Project Title	Water Energy Food (WEF) Nexus in the West Bank ***Solar Powered Water Wells in the West Bank***
(Quantum Project ID and Description)	Award No.: 1373328 Project No.: 01003568
Implementing Partner(s)	United Nations Development Programme / Programme of Assistance to the Palestinian People (UNDP/PAPP)
Project Start Date	16 December 2024
Project End Date	31 December 2027
Annual Work Plan Budget Year 2025	$ 249,401.01
Total Resources Required	NoK 34,653,465.35 *(Without Levy)*
Revenue Received	NoK 14,356,435.65 **equivalent to US$ 1,288,034.71**
UNDP Contact Person	Jaco Cillier Special Representative of the Administrator Email: Jaco.cillier@undp.org Tel: 02-6268200

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I. Executive Summary

The Water-Energy-Food (WEF) Nexus project, funded by the Government of Norway and implemented by UNDP in partnership with key Palestinian institutions, has made significant progress during the reporting period from January to June 2025. The project aims to enhance the operational sustainability and resilience of water supply systems in the West Bank through the integration of solar photovoltaic (PV) systems and energy efficiency measures in critical water facilities.

The Project Implementation Unit (PIU) was swiftly established in January 2025, with key personnel recruited promptly. The Terms of Reference (ToR) and Request for Proposal (RFP) for consultancy services were efficiently finalized with stakeholder input, culminating in awarding a two-year contract to Diyar Consultants following a competitive procurement process. A multi-partner Steering Committee met for the first time on 18 March, endorsing the technical roadmap, adding 12 extra sites (27 total) for assessment.

Within five weeks of contract signature the consultant team completed field site visits and inception report of 27 targeted water facilities. Assessments identified approximately 19,230 m² of available space suitable for installing solar photovoltaic (PV) systems.

In February 2025, UNDP successfully conducted field visits in collaboration with donors (Norway, Netherlands) and national stakeholders, showcasing ongoing rehabilitation work on eight water wells. The inaugural Steering Committee meeting in March 2025 reviewed project progress, approved the inclusion of an additional 12 facilities, and set clear actions for continued engagement and project oversight.

These projects under WEF nexus form a critical part of the broader strategy for Sustainable Natural Resources Management at the national level, supporting long-term environmental solutions and promoting equitable access to resources. By incorporating renewable energy solutions into public infrastructure, UNDP is contributing to the sustainability and availability of natural resources. All stakeholders emphasized that this is a truly impactful programme, exemplifying the powerful synergies achieved by addressing the intersection of water and renewable energy.

Despite external challenges and regional volatility, the project remains on track to deliver its objectives. The upcoming period will focus on finalizing detailed designs, launching construction tenders, operationalizing the Resilience Fund, and amplifying communication and visibility. Collectively, these achievements position the WEF Nexus project as a flagship model for advancing climate-resilient and sustainable water and energy solutions in Palestine.

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II. Background

Since 7th October 2023, the heightened political and security tensions continue constraining the livelihoods of hundreds of thousands of Palestinians in the West Bank, limiting their access to economic opportunities, the rising wave of violence, coupled with territorial fragmentation, access and movement restrictions, limited access to and control over natural and productive resources, has led to further deterioration of the already fragile socio-economic conditions of the Palestinian people in the West Bank.

Economic projections indicate that the gross domestic product (GDP) of the State of Palestine contracted by 35.1 per cent in 2024 compared with a no-war scenario, with unemployment potentially rising to 49.9 per cent. By the end of 2024, the Human Development Index (HDI) in the State of Palestine may fall to 0.643, a level not seen since HDI calculations began in 20043.

The PA is currently facing a severe fiscal crisis caused by a 50% drop in public revenues because of the overall downturn in economic activity and the significant increase in illegal Israeli deductions from Palestinian tax "Clearance" revenues, with accumulated withheld funds reaching more than US$2.2 billion.

Access to quality water service is essential for sustaining life and ensuring decent living conditions for all. In the West Bank, however, the bulk water supply and distribution system face significant challenges that hinder access to safe and reliable water. The Palestinian Water Authority (PWA) recently reported that the bulk water supply system often operates on an emergency basis, especially during the summer months. To address these issues, the PWA has identified five key priorities among which is enhancing operational sustainability of groundwater wells owned and operated by West Bank Water Department (WBWD).

With $9.2 million in funding from the Kingdom of the Netherlands, the United Nations Development Programme (UNDP) has launched a water wells rehabilitation program to increase the productivity from the West Bank Water Department (WBWD) wells. This program includes major replacements of electromechanical equipment and hydrological work to restore these wells to their design capacity.

Additionally, the lack of access to clean, reliable, and affordable electricity further constrains the quality of water services in Palestine. With about 90% of energy imported from Israel, electricity prices are among the highest in the MENA region, leading to high costs and frequent power outages that adversely affect water service provision.

Under Water-Energy-Food (WEF) Nexus programme, in partnership with the Palestinian Water Authority (PWA), National Water Company/ West Bank Water Department (NWC/WBWD) and Palestinian Energy and Natural Resources (PENRA) and Ministry of finance (MoF), Solar Powered Water Wells in the West Bank project aims to support and contribute to national efforts towards improving the efficiency of the NWC/WBWD as bulk water supplier to the local government units in the West Bank through integration of solar PV systems and energy efficiency measures into its water production

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facilities. Thus, enhancing the production capacity of these wells is crucial for building Palestinian resilience.

Consequently, this will enhance its operational sustainability through utilizing generated saving from reduction of electricity consumption in undertaking preventive maintenance of these facilities also to contribute to the longer-term and higher-level results of improved sustainable and climate resilient management of and equitable access to natural resources, including renewable energy.

In addition, this project is in line with the Palestinian Government transformative vision that was articulated through the recent **Build Palestine Strategic Framework**, identifying four key pillars essential to **national resilience and growth**. These pillars guide the country's development and response to the unique and unprecedented crisis. Specifically, it contributes to achieving the following strategic development initiative: Energy security and transition to renewable energy sources which seek support transition to green economy by generation Palestine's electricity needs from renewable resources. Additionally, the project will contribute to avoiding 70t CO2eq thus contributing to Palestine's emission reduction target.

By mobilizing solar energy solutions for water wells, the project is also well aligned with and will contribute to advancing progress towards SDG 6 on Clean Water and Sanitation, as well as SDG 7 on Affordable and Clean Energy.





UNDP will implement a 1.8 MWp solar PV system and energy efficiency measures across 15 potential sites (water well sites and facilities) with an estimated lifetime generation electricity saving value of approximately $10 million for 25 years as per the below chart.

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chart 01: Cost Savings for 25 years

Moreover, UNDP in close collaboration with the NWC's board of directors chaired by PWA, intends to explore the establishment of a resilience fund for rehabilitation and maintenance of the WBWD water wells where it is suggested that the generated savings from electricity consumption will be transferred by the Ministry of Finance to this fund, which currently pays the electricity invoices of the wells to the respective DISCOs. The following schematic diagram illustrates a proposed institutional arrangement among various actors to establish and operationalize such fund.

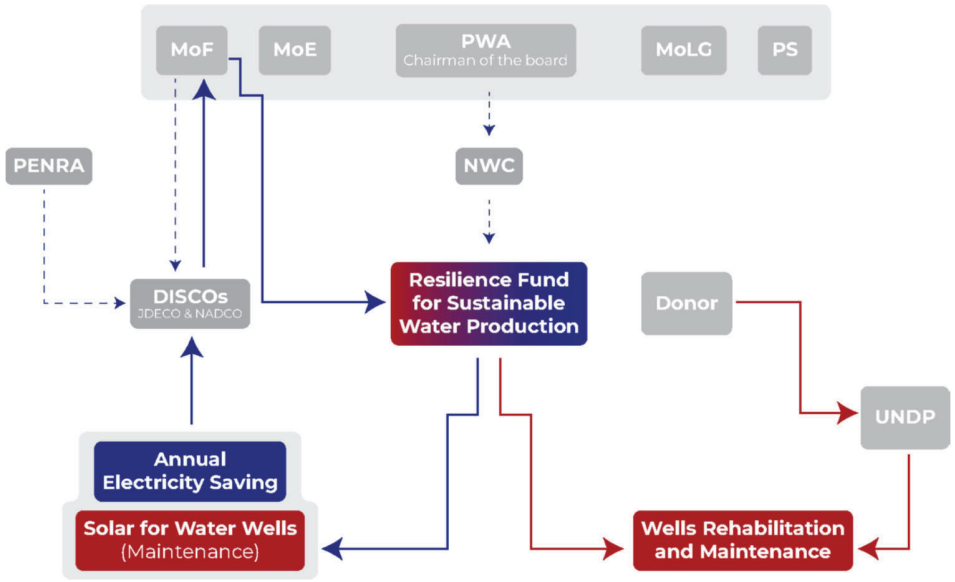


Chart02: Proposed Resilience fund mechanism flowchart

This project intends to achieve the following OUTCOME: Improved sustainable and climate resilient management of and equitable access to quality of service and natural resources, including renewable energy.

Under this OUTCOME the project team will work closely with PENRA, PWA, NWC/WBWD and MoF in undertaking the following activities.

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Output 1: *Solar PV system is developed and operationalized including energy efficiency measures at the identified water facilities in the north and south of the West Bank.*
Activity 1.1 Undertake energy audit, detailed design, overall supervision and preparation of full tender document including soliciting needed clearances from relevant entities for integrating solar PV system and energy efficiency measures in the identified 15 water facilities.
Activity 1.2. Supply, install, and implement 1.8 MW solar system and EE measures and undertake commissioning
Activity 1.3 Prepare operation and maintenance plan including digital monitoring system for the 27 sites and agreement with PS for system maintenance
Output 2: *Resilience fund for wells' sustainable operation established and operationalized.*
Activity 2.1 Carry out consultation with PWA, NWC, and MoF on the establishment of a resilience fund for sustainable water production and prepare draft legal framework.
Activity 2.2 Prepare coordination mechanism and draft legal framework to operationalize the fund

III. Achievements Review

This report covers the period from **January 2025 to June 2025**, highlighting key achievements and outlining the primary challenges encountered. The Project Implementation Unit (PIU) has undertaken various strategic activities, including conducting technical assessments and closely following up with the appointed consultant to ensure timely delivery of key milestones. Regular consultations have been maintained with national partners (PENRA, PWA, NWC/WBWD, and MoF/MoPIC). The PIU will continue coordinating with relevant project stakeholders throughout the upcoming implementation period.

In December 2024, Norway and the United Nations Development Programme (UNDP) signed an agreement to implement the project called "Solar Powered Water Wells in the West Bank" under Water Energy Food (WEF) Nexus in the West Bank. During the reporting period major deliverables and milestones were achieved.

As the mechanism for the implementation of this project in UNDP/PAPP is Direct Implementation (DIM) modality then the formation of the Project Implementation Unit (PIU) started in January 2025, whereas the Project Manager (PM) was appointed in January 2025 in addition to the appointment of the support team in line with the project structure.

Consequently, In February 2025, the terms of reference (TOR) for the consultancy firm were formulated, and the draft request for proposal (RFP) was shared by UNDP with all relevant stakeholders (PWA and PENRA) for their technical review and feedback. The final clearance from PENRA and PWA was received on January 29, 2025.

The official launch of the request for proposal took place on February 06, 2025, through UNDP's procurement unit.

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Subsequently, from February 2025 to May 2025, the procurement process, including tendering, evaluation of offers, and contract awarding, was thoroughly carried out as per the following details:

- REQUEST FOR PROPOSAL (RFP) – issued on February 06,2025.
- Pre-bid meeting Date & Time was February 18, 2025.
- Addendum No.1 to the RFP issued on February 22,2025.
- The deadline for submission of offers has been extended to March 06,2025.
- No. of bids received (if any): 7
- Value for Money Analysis: The contract award shall be determined through the following method:
- Highest-rated proposal using the combined scoring method. The distribution of weight between the technical and financial proposals shall be 70 percent and 30 percent, respectively.
- Timeline of the process: Contract for Consultancy Services will be established during April 2025.
- Duration of the Consultancy services: 2 Years
- Details of evaluation process: Evaluation-Consultancy Services RFP00314-1 08.04.2025
  - No. of technically responsive bids after evaluation for Mandatory criteria: 4
  - No. of technically responsive bids after evaluation: 2
  - No. of technically non-responsive bids after evaluation: 5

Building mutual consensus on the project activities among the main stakeholders was a key priority. Accordingly, a series of meetings and consultations were held with key project partners, including the relevant departments of PWA, WBWD/NWC, and PENRA. These engagements also included the joint evaluation of the consultancy service tenders, where the relevant stakeholders collaboratively worked on a consolidated assessment.

During the reporting period, UNDP drafted Memoranda of Understanding (MoUs) with the Palestinian Water Authority (PWA) and the Palestinian Energy and Natural Resources Authority (PENRA). These agreements define the partnership's scope and clearly outline each party's roles and responsibilities in implementing the "Solar-Powered Water Wells in the West Bank" project. In the coming period, UNDP will focus on securing formal endorsement of the MoUs.

As part of the Water-Energy-Food (WEF) Nexus programme, UNDP successfully conducted a field visit to targeted water facilities on 19 February 2025. The visit was organized in collaboration with WEF Nexus donors (the Netherlands and Norway) and included the participation of national stakeholders, with representatives from PWA and WBWD/NWC in attendance.



Photo01: Stakeholder field visit dated 19 February 2025

During the visit, UNDP presented ongoing efforts to

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rehabilitate eight water wells in the West Bank to increase their production capacity and help alleviate the acute water shortage. This includes replacing electromechanical equipment and carrying out essential hydrological works.

Furthermore, UNDP is integrating solar photovoltaic systems and implementing energy efficiency measures across 15 water facilities. These initiatives are expected to reduce electricity consumption and enhance the long-term sustainability of well operations.

These projects form a critical part of the broader strategy for Sustainable Natural Resources Management at the national level, supporting long-term environmental solutions and promoting equitable access to resources.



Photo02: Stakeholder field visit dated 19 February 2025

By incorporating renewable energy solutions into public infrastructure, UNDP is contributing to the sustainability and availability of natural resources. All attendees emphasized that this is a truly impactful programme, exemphifying the powerful synergies achieved by addressing the intersection of water and renewable energy. For more details, please refer to Annex 02 (Leaflet for WEF Nexus).

In coordination with the Norway Representative Office, UNDP convened a Steering Committee meeting on **March 18, 2025.** UNDP actively facilitated and followed up on the preparation for this session, during which committee members were provided with comprehensive updates on the Water Energy Food Nexus (WEF Nexus) project's progress and achievements to date:

- This marked the first Steering Committee meeting for the WEF Nexus, with participation from committee members representing various stakeholders.
- National counterparts presented their experiences and expectations related to the Nexus.
- The session allowed UNDP to inform the Steering Committee members about the programme's overall framework, specific objectives, expected outputs, current status, key accomplishments, and major milestones set for 2025.
- Outcomes and insights gathered during this meeting will guide the project implementation team in identifying priorities and effectively planning activities for the forthcoming period.
- The meeting also clarified the subsequent steps required from stakeholders, outlined necessary progress criteria, and established stakeholder engagement strategies and guidance.



Photo03: Steering committee meeting dated March 18, 2025

The national counterparts through WBWD/NWC expressed gratitude towards supporting entities such as Norway, the Netherlands, and UNDP.

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UNDP outlined their integrated approach combining water and energy strategies. Highlighted initiatives included the installation of solar photovoltaic (PV) systems at 15 wells (each with a capacity of 1.8 kWp), implementation of digital transformation through an online dashboard, drilling and rehabilitation of wells, and the establishment of a Resilience Fund designed for preventive maintenance.

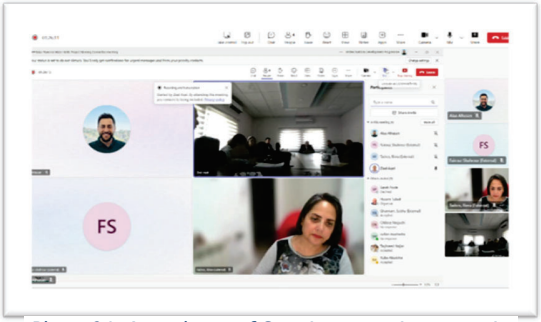


Photo 04: Attendance of Steering committee meeting virtually

Donor representatives from Norway and the Netherlands reaffirmed their commitment and support to the WEF Nexus programme. They emphasized the critical role of renewable energy in sustainable water management and identified the programme as a potential flagship initiative for expanding renewable energy investments across Palestine.

Discussions highlighted several critical points, notably the importance of scaling renewable energy projects such as solar PV installations and energy efficiency audits to optimize operational costs and revenue generation. Financial sustainability was underscored through recommendations for revolving funds and business models mechanisms, with essential governance roles allocated to MoPIC and MoF.

Action items established during the meeting include holding two Technical Committee meetings in mid-June and mid-August 2025, finalizing tender documents, and developing the Resilience Fund roadmap. Stakeholders agreed to expand project assessments to incorporate **an additional 12 sites in the design stage**, bringing the total to 27 facilities. UNDP will direct the contracted consultant to include these sites in the design phase and conduct an energy audit. This will help evaluate them as potential future projects that may require additional financing for system implementation. All attendees approved this request. Furthermore, the development and operationalization of an online monitoring dashboard will continue to ensure transparent reporting and effective programme management.

In conclusion, the Steering Committee's inaugural meeting successfully established clear goals, identified key achievements, and outlined future steps to drive forward the implementation and success of the WEF Nexus programme throughout 2025.

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Photo05: Proposed WEF Nexus Dashboard

Progress against outputs is outlined as below:

Output 1: Solar PV system is developed and operationalized including energy efficiency measures at the identified water facilities in the north and south of the West Bank.

Activity 1.1: Undertake energy audit, detailed design, overall supervision and preparation of full tender document including soliciting needed clearances from relevant entities for integrating solar PV system and energy efficiency measures in the identified 15 water facilities.

As mentioned above regarding the consultancy service, the contract was awarded to a local consultancy firm, Diyar Consultants Company. The contract duration is two years, beginning on 20 May 2025 and concluding on 20 May 2027. It is worth mentioning that a pre-award meeting was conducted with the consultant prior to the final awarding of the contract, during which the following points were discussed and clarified:

- UNDP emphasized the strategic importance of this project for all stakeholders, noting that it is a *catalyst initiative* intended for future scale-up and replication. UNDP highlighted the need for collective focus and dedication from the consultant, especially during the design stage, to ensure successful implementation.
- UNDP outlined the two major components of the project:

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Component 1: Technical Design (PV Systems Integration and Energy Efficiency)
This element includes the integration and design of photovoltaic (PV) systems and energy efficiency interventions. It was mentioned that this is a relatively straightforward components and is not expected to pose significant technical challenges.

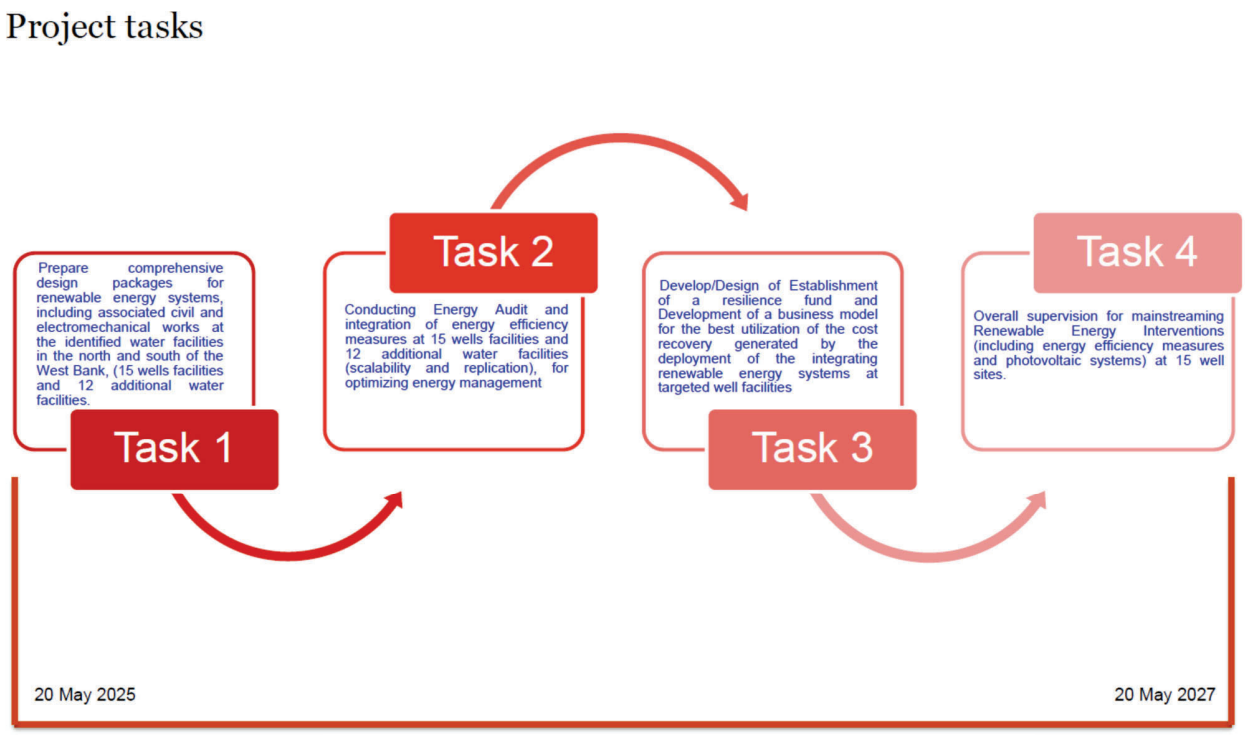
Component 2: Establishment of the Resilience Fund and Business Model
This component was identified as more complex, requiring thorough attention to detail, innovative thinking, and high-level stakeholder coordination. It involves the development of a unique and practical business model for the Resilience Fund, to be validated and endorsed by all relevant stakeholders.

- The consultant was advised to examine similar models implemented by stakeholders in past initiatives (e.g., JAIP, PBC's, GO SOLAR, etc.) to inform the design of the Resilience Fund and enhance benefits to key beneficiaries, the National Water Company (NWC) and the Palestinian Water Authority (PWA).
- The consultant was notified to initiate coordination with key stakeholders (NWC/WBWD, PENRA, PWA) and to carry out a preliminary assessment of the 27 targeted facilities. This will inform the development of the **Inception Report**, which will present a situational analysis and propose a roadmap for the implementation of the four project components (tasks).
- **Contractual and Implementation Matters:**

- Upon contract signature, the consultant requested an adjustment to the project schedule to better reflect realistic timelines and the sequential of planned activities.
- The consultant confirmed full understanding of the Terms of Reference (TOR) and committed to making necessary revisions following the inception phase, which will include technical assessments and stakeholder consultations. The inception report will be submitted within one month of contract commencement.
- The consultant demonstrated strong alignment with project objectives and TOR. And showed readiness to leverage lessons learned and existing mechanisms to enhance implementation efficiency.
- A clear vision was presented regarding the economist's role in driving Component 3 (Resilience Fund establishment), with a focus on delivering measurable and sustainable outcomes.
- The consultant also committed to ensuring full visibility and branding of the project in accordance with UNDP guidelines.

The assignment commenced on **22 May 2025**. During this two-year period, the consultancy firm will operate under the supervision of the UNDP Project Implementation Unit (PIU) and address the following tasks:

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Flowchart03: The objectives of the consultancy assignment (4 components)

The firm started on June 2025 under the supervision of the project manager with the support of Programme Portfolio Analyst at UNDP.

Al Diyar Consultant Approach encompasses the following:



Photo06: Schematic Diagram of the Consultant Work Plan

Within one month from the commencement date, the consultant completed all **site visits and fact-finding** activities for the 27 targeted water wells and facilities. All relevant information gathered has been compiled and presented in Table 1. During this process, end users at the wells and targeted facilities, along with key beneficiaries, were actively engaged to ensure their requirements were adequately considered during the project's implementation phase.

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The assessment yielded comprehensive data on the 27 water facilities, serving two primary objectives. Firstly, it provided a detailed understanding of the current status of each facility, including assessments of rooftop and yard (land) availability, existing electrical infrastructure (main distribution boards, electrical networks, and electricity demand), and unresolved financial obligations related to electricity consumption at the wells. This financial evaluation is vital to informing project execution and developing a sustainable business model and resilience fund.

The consultant team's proactive engagement with end users was critical in identifying essential needs, a step crucial to the solar project's success. This detailed identification allows the designers to develop accurate and site-specific designs tailored to each facility's requirements.

According to the inception report submitted by the consultant on July 1, 2025, which is currently under review by UNDP, the final draft of the inception report will also be shared by UNDP with relevant stakeholders for their review and feedback. Subsequently, UNDP will organize a kick-off meeting with the consultant and key stakeholders to agree on the next steps.

During the site visits, the consultant's technical team identified suitable areas for installing solar panels at each location. The total available area identified for installing solar panels across all 27 sites is approximately **27,677 m²**. However, only around 95% of this area will directly accommodate the solar panels **26,293 m²**, leaving sufficient space reserved for future system maintenance and cleaning.

The potential area available for installing solar panels varies significantly between sites. Smaller sites, such as Aqaba and PWA, offer as little as 114 m², while larger reservoir sites, like Halhul and Dheisha, provide approximately 4,717 m² and 1,970 m², respectively. Notably, the Misiliya WWTP site lacks any suitable area for solar panel installation.

Table 1 below summarizes basic site data, including available land for solar panel installation.

However, unforeseen circumstances—particularly the ongoing war on Gaza, the War between Iran and Israel, and the subsequent deterioration of the political situation—have unfortunately resulted in some delays, especially with regard to the consultant’s field visits. Despite these unavoidable challenges, UNDP remains fully committed to the successful implementation of the project.

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Energy Basic Data								
By each DISCO								
No.	**Lot No.**	**Facility Name**	**Governorate**	**DISCO**	**PV Available Area (m2)**	**Area Deduction (95%)**	**PV Plant Capacity (KWp)**	**PV Plant production per month (KWp.hour)**
2.26	2	PWA headquarter Building - Ramallah	Ramallah	JDECO	120	114	13	1,956
2.27	2	WBWD Building - Ramallah		JDECO	1,310	1,245	146	21,352
Total JDECO Ramallah							**160**	**23,308**
1.24	1	Al-Uja Well	Jericho	JDECO	371	352	41	6,047
1.25	1	Jericho Well		JDECO	175	166	20	2,852
Total JDECO Jericho							**61**	**8,899**
1.12	1	JWC-4	Bethlehem	JDECO	1,047	995	117	17,065
1.13	1	PWA NO.11		JDECO	991	941	111	16,152
1.14	1	Al – Eizariya No.1A (IZZ-1)		JDECO	796	756	89	12,974
1.15	1	Al – Eizariya No.2 (IZZ-2)		JDECO	807	767	90	13,153
1.16	1	Hindaza		JDECO	704	669	79	11,475
1.17	1	PWA No.3		JDECO	929	883	104	15,142
1.18	1	East Herodion 2		JDECO	1,090	1036	122	17,766
1.19	1	Al – Eizariya No.3 (IZZ-3)		JDECO	957	909	107	15,598
2.23	2	Dheisha storage tank		JDECO	1,970	1872	220	32,109
Total JDECO Bethlehem							**1,038**	**151,434**

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2.8	2	Aqaba pumping Station	Tubas	TDECO	120	114	13	1956
1.1	1	Tammoun Well		TDECO	695	660	78	11,328
2.10	2	Faraa' Warehouse tubas		TDECO	653	620	73	1,0643
2.11	2	Misiliya WTTP		TDECO	0	0	**0**	0
Total TDECO							**164**	**23,927**
1.2	1	Meithalun Well	Jenin & Nablus	NEDCO	1,380	1,311	154	22,493
1.4	1	Rujeeb Well		NEDCO	1,574	1,495	176	25,655
2.9	2	Boureen Pumping Station		NEDCO	229	218	26	3,732
Total NEDCO							**356**	**51,880**
1.3	1	Sanur Well	Jenin	IEC	1,240	1178	139	20,211
1.5	1	Arrabah Well	Jenin	IEC	1,355	1,287	151	22,085
Total NEDCO							**290**	**42,296**
2.22	2	Dora Storage tank	Hebron	SELCO	911	865	102	14,848
2.6	2	Awarta Pumping station	Nablus	Awarta Village Council	966	918	108	15,745
2.7	2	Faqou' Station Jalboon	Jenin	Jalboon Municipality	571	542	64	9307
2.20	2	Seir Pumping Station	Hebron	Seir Municipality	1,999	1,899	223	32,582
2.21	2	Halhul Storage Tank	Hebron	Hebron Municipality	4,717	4,481	527	76,882
		GRAND TOTAL			**27,677**	**26,293**	**3,093**	**451,108**

Table 01: basic site data, including available land for solar panel installation

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The targeted water facilities and wells are distributed as per the following map:

Rs2	Psx# Rs2	Jegmmx}#Reqi
Rsvxl#Wikmsr		
5		Wdpprxq#Z hoo
6		Phlwkdoxq#Z hoo
7		Vdqxu#Z hoo
8		Uxmmhe#Z hoo
9	5	Dudedk#Z hoo
:		Dzdud$xpslqj#wdwdrq
;		Idtrxcl#Wdwdrq#Mdeerrq
<		Dtded$xplqj#Vdwdrq
=		Erxuhq$xpslqj#Vdwdrq
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56		MZ F07
57		SZ D#R144
58		Do$H1}dul|d#Qr14D#+L]04,
59	5	Do$H1}dul|d#Qr15#+L]05,
49		Klogd}d
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5<		Hdw#Khurglrq#5
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65	6	Kddxd#Vwrudjh#Wdqn
66		Gru#Vwrudjh#Wdqn
67		Gkhlvkd#Vwrudjh#Wdqn
Qmhpqi#Wikmsr		
68		DdXmd#Z hoo
69	5	Mhulfkr#Z hoo
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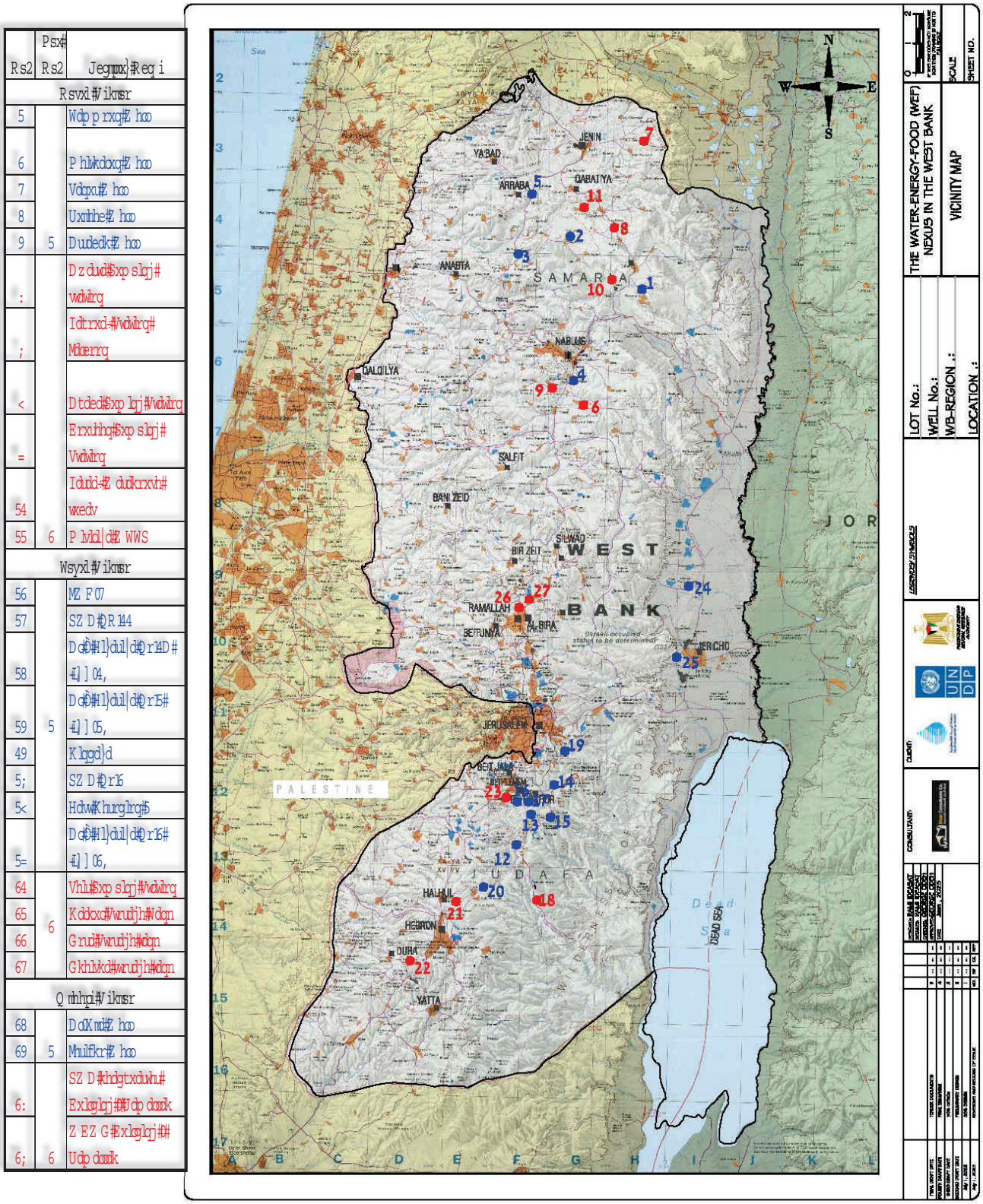


Photo 07: Vicinity Map for 27 water facilities

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In line with the major activities outlined in the project document—specifically, the implementation of energy efficiency systems for targeted water facilities—UNDP has included, as a key component in the Terms of Reference for consultancy services, a requirement for the consultant to conduct an energy audit and integrate energy efficiency measures at 15 well facilities to optimize energy management.

The purpose of this audit is to identify potential energy-saving measures that can result in cost reductions, environmental benefits, and enhanced energy sustainability at these water facilities. The consultant is expected to collect relevant data through a walk-through energy audit, including building plans, energy bills, occupancy schedules, and maintenance records.

The consultant has submitted a proposed methodology for the design and engineering of energy efficiency measures as part of their technical proposal. UNDP has reviewed this methodology, and a summary is provided below:

- Ensuring the optimal integration of energy efficiency measures at the targeted water well facilities.
- Energy Efficiency Measures: Identify and design energy efficiency measures to optimize water pumping and related operations, reducing overall energy consumption.
- Testing and Commissioning: Performance Testing: Oversee the testing and commissioning of solar PV systems and energy efficiency measures, ensuring they meet performance expectations and comply with relevant standards.
- Training: Conduct comprehensive training sessions for WBWD, PWA, and DISCO staff on the operation and maintenance of solar PV systems and energy efficiency equipment.

Renewable Energy and Energy Efficiency Assessment:

- This phase focuses on identifying, evaluating, and optimizing potential renewable energy and energy efficiency solutions for the targeted water well facilities. Through a comprehensive assessment of technical, economic, environmental, and social factors, this phase will inform the development of feasible and sustainable project designs that meet the specific needs of each site and contribute to the long-term resilience of water infrastructure in the West Bank.

Key activities include:

Energy Efficiency Analysis: Identifying and prioritizing energy efficiency measures for water pumping and related operations through detailed energy audits and benchmarking against best practices. Conducting cost-benefit analyses to optimize energy savings, reduce operational costs, and maximize the return on investment.

Financial Analysis: Evaluating the economic viability of proposed interventions through comprehensive financial modelling and analysis. Assessing project payback periods, return on investment, net present value, and internal rate of return. Developing financing strategies and exploring potential funding sources to support project implementation and ensure long-term financial sustainability.

Project Design and Development

· Site Assessments and Surveys.
· Energy Audits and Analysis: Perform detailed energy audits to analyze historical energy consumption patterns, identify potential energy efficiency improvements, and determine the optimal sizing of the solar PV systems. This includes:

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1. Water Pumping Analysis: Evaluate the energy efficiency of existing water pumping
systems and identify opportunities for optimization.
2. Load Profile Analysis: Develop a detailed understanding of the energy demand profile to ensure the solar PV system design aligns with the water well's operational needs.



Photo 08: Existing pumping station at Well EZZ01

· System Design and Engineering:
Energy Efficiency Integration: Incorporate energy-efficient technologies and practices into the water well's operation to minimize energy consumption and maximize cost savings.

2. Stakeholder Consultation and Knowledge Transfer: This phase focuses on fostering a collaborative and participatory approach throughout the project lifecycle, ensuring that all stakeholders are actively involved and informed.
3. Implementation and Monitoring: Supervise the construction and installation of solar PV systems and energy efficiency measures, ensuring adherence to approved designs and safety regulations.
4. Evaluation and Sustainability:

- Assess the actual impact of the solar PV systems and energy efficiency measures on water production, energy consumption, and operational costs at the targeted water wells.
- Ensure the long-term functionality and reliability of the implemented solar PV systems and energy efficiency measures.
- Promote the integration of renewable energy and energy efficiency into water management policies and practices within Palestine.

According to the inception report submitted by the consultant, based on site visits conducted at 27 water facilities, the consultant provided the following summary:

In accordance with ISO 50001:2018 and BS EN 16247-1 and in line with the regulatory framework of the Palestinian Electricity Regulatory Council (PERC) this section provides a comprehensive assessment of energy efficiency across the internal systems of 27 sites, water pumping infrastructure. The primary focus is on evaluating and enhancing the performance of electrical and electromechanical systems, including pumps, motors, control panels, lighting, cabling, and auxiliary equipment.

The assessment aims to:

- Establish clear Energy Performance Indicators (EnPIs), such as kWh/m³ of pumped water.
- Identify Significant Energy Uses (SEUs) across facilities, especially high-demand components.
- Evaluate operational efficiency against international benchmarks including:
  - BS EN 60034-30-1 – Efficiency classes for electric motors (IE2, IE3, IE4).
  - BS EN 60598 – Lighting systems efficiency.
  - BS 7671 – Wiring and cable sizing standards (IET Regulations).
- Ensure alignment with local energy efficiency requirements and electrical safety codes issued by PERC.

Key Energy Efficiency Findings:

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The consultant's team has conducted targeted site visits to three locations during the last month — Rujeeb, Awarta, and Tammoun. The findings from these physical evaluations are summarized below:

1. **Pump and Motor Systems**

- Many pumping stations operate fixed-speed pumps without modern control systems.
- Excessive motor temperatures (up to 100°C) were observed, which can reduce mechanical seal life and winding insulation durability.
- Absence of Variable Frequency Drives (VFDs) limits operational flexibility and increases energy consumption during partial load operation.

2. **Electrical Cabling and Distribution**

- Several cables were found to be undersized, leading to overheating and insulation damage.
- Cracks on some cables and signs of thermal fatigue were noted, indicating potential safety risks and electrical losses.
- Improper routing and disorganized wiring contribute to voltage drops, maintenance difficulties, and inefficiencies.

3. **Power Factor**

- At several sites, power factor (PF) values were measured below 0.90 due to predominant inductive loads such as pumps and motors.
- This low PF increases apparent power demand, leading to higher utility charges and reduced electrical system capacity.
- Specifically, the pump PF, as indicated on the manufacturer's nameplate and monitored via the SCADA system, is approximately 0.88, while the grid and design standards require a minimum PF of 0.92.
- This discrepancy causes increased reactive power flow, higher energy losses in cables and transformers, and potential financial penalties under local utility regulations.
- Implementing power factor correction is crucial to enhance energy efficiency, reduce operational costs, and maintain compliance with grid requirements.

4. **Lighting and HVAC Systems**

- Lighting systems rely heavily on outdated halogen and fluorescent fixtures, many of which operate continuously.
- In electrical rooms, multiple air conditioning units run simultaneously without thermal or time-based control, increasing energy waste.

5. **Instrumentation and Monitoring**

- Non-functional or unreadable pressure gauges were observed, limiting the ability to monitor pump efficiency.
- Lack of energy meters and data logging systems at panel or equipment level restricts performance tracking and diagnostic capabilities.

In order to guarantee long-term enhancement and adherence to standards, the following structured protocol is proposed:

To maximize the benefits of the solar PV installations and ensure measurable energy efficiency across the WBWD facilities, the following protocol outlines the practical steps to be taken throughout the project lifecycle:

1. **Baseline Assessment**
   - Conduct detailed energy audits at each facility to establish baseline consumption patterns.
   - Identify high-energy-use equipment (e.g., pumps, motors, lighting) and assess operational efficiency.

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- Map out daily and seasonal consumption profiles to align with PV generation patterns.

2. Efficiency-Oriented Design Integration

- Optimize PV system sizing not only based on available area but also on peak demand curves and consumption behaviors.
- Select high-efficiency inverters and modules with low degradation rates and high-performance ratios.
- Where suitable, implement hybrid systems with battery storage to reduce grid dependency during off-peak solar hours.

3. Infrastructure Improvements

- Upgrade to energy-efficient pump systems and motors, where existing equipment is outdated or oversized.
- Retrofit LED lighting and smart controls (e.g., timers, occupancy sensors) in administrative buildings and warehouses.
- Improve power factor correction and minimize losses in electrical distribution systems.

4. Operational Practices

- Establish a centralized energy monitoring system for all PV-enabled facilities.
- Track daily, monthly and annual energy savings and performance deviations.
- Implement a preventive maintenance schedule to sustain optimal system performance, including cleaning PV panels, tightening connections, and inverter calibration.

5. Capacity Building and Training

- Train WBWD operational teams in energy-efficient practices, PV system monitoring, and fault detection.
- Encourage site-based staff to regularly report anomalies or over-consumption for rapid response and correction.
- Build capacity for data-driven decision making using dashboards and visual tools.

6. Continuous Evaluation and Optimization

- Set efficiency KPIs (e.g., kWh/m³ of pumped water) and track performance over time.
- Reassess system design and load profiles annually to identify opportunities for system resizing or component upgrades.
- Incorporate lessons learned and feedback loops into future phases or facility expansions.

The consultant is currently engaged in a detailed evaluation phase, developing customized assessment tools for each individual pumping station to accurately measure and benchmark performance. The insights derived from this comprehensive evaluation will directly inform the forthcoming design report, enabling the formulation of targeted, station-specific corrective measures.

These measures, aligned with ISO 50001, British Standards (BS), and relevant local regulatory frameworks, are expected to significantly reduce energy losses, enhance system reliability, and lower operational costs across the 27 sites. Beyond immediate improvements, this initiative aims to establish a robust foundation for a sustainable, efficient, and resilient water pumping network—one that adheres to both local and international best practices in energy management.

Electricity Consumption and Solar PV Coverage Estimation

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Due to the limited availability of historical billing records, the electricity consumption analysis is based on the available annual utility bills for 2023 and 2024, which totaled ILS 28,892,802.69 and ILS 31,686,817.98, respectively. No complete data is available for previous years.

Assuming an average electricity tariff of ILS 0.675/kWh, the estimated annual electricity consumption amounts to approximately 42.8 million kWh in 2023 and 46.9 million kWh in 2024. This translates to average monthly consumptions of 3,567,012 kWh and 3,908,743 kWh, respectively.

The proposed photovoltaic (PV) system is expected to generate approximately 451,108 kWh per month. This output would offset:

- **12.6%** of the average monthly electricity demand in 2023
- **11.5%** of the average monthly electricity demand in 2024

The following charts presents a visual comparison between the total annual energy consumption of the targeted facilities and the projected energy production from the proposed solar PV system for the year 2024.

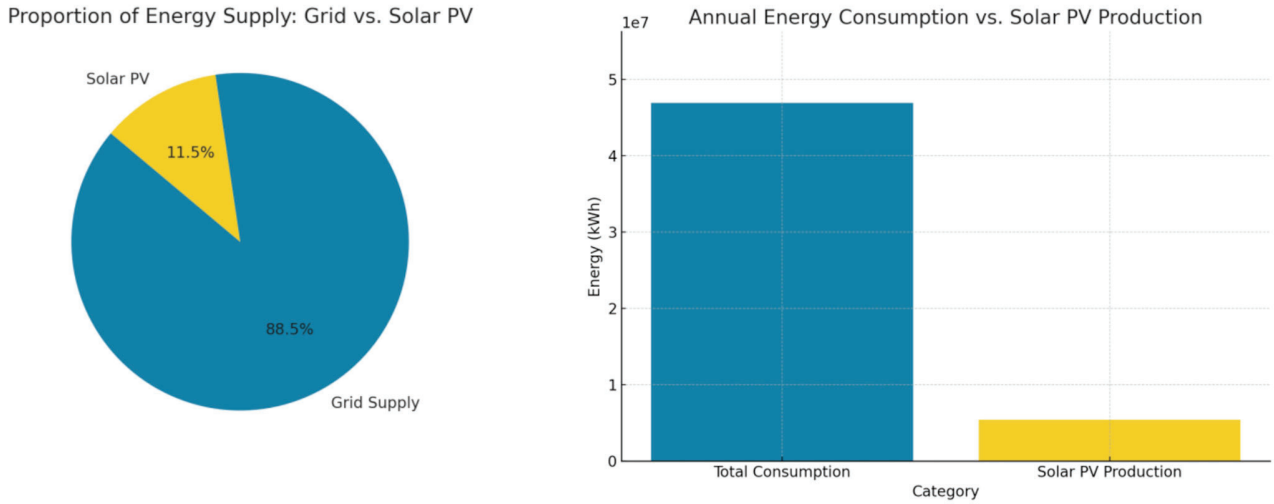


chart04: Annual Consumption vs. Solar PV Production

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Output 2: Resilience fund for wells' sustainable operation established and operationalized.

Under this output, UNDP is reviewing models and mechanisms shared by the Ministry of Finance for governing and managing revolving funds. UNDP will build on the mechanisms that are already in place:

- JAIP 2021 (Developed by PWC)
- Go Solar 2024(Developed by PWC)
- Performance Based Conditions (PBCs) (Developed by World Bank 2021)

UNDP through the contracted consultant will:

- Undertake extensive consultation with (MoF), (PENRA), (PWA) and Electrical Distribution Companies (DISCOs) on the establishment of this fund.
- The project will draft a legal and institutional framework for establishing a resilience fund

The consultant's preliminary assessment and inception report emphasize the need to demonstrate the economic viability of switching the wells and associated institutions from conventional grid electricity to solar power. Establishing that solar energy yields net savings is essential for justifying the proposed Resilience Fund. Viability will be gauged by comparing projected electricity cost reductions with expected maintenance expenses for the solar-powered water wells (SPWWs). As implementation advances, the project's technical team will supply refined maintenance estimates to the finance expert.

If the analysis confirms strong economic merit, the business model, organizational structure, and governance framework for the Fund will be examined in depth. The Fund must provide sufficient flexibility and long-term sustainability for the water-well operations. Oversight of the Fund is tentatively expected to fall to the National Water Distribution Company, currently being established.

Additional stakeholder interviews will be conducted to address the legal, regulatory, institutional, and operational dimensions of setting up and managing the Fund.

To ensure the successful development of a resilience fund and business model for managing the generated electricity and establishing a fair, compliant tariff, UNDP will work closely with the consultant to develop these mechanisms in consultation with DISCOs and project stakeholders.

UNDP will also collaborate with national counterparts to further elaborate on the arrangements and establish the governance structure for the revolving funds. In addition, UNDP will initiate discussions with PWA, MoF, and PENRA to reach an agreement on the business model and establish an appropriate legal framework for the transfer of funds, if applicable, from DISCOs to beneficiaries. Furthermore, the consultant will propose a suitable operation and maintenance mechanism to ensure the sustainability of the photovoltaic systems throughout their lifetime.

Following the steering committee meeting held in March 2025, UNDP has been actively following up on the agreed action points. Additional meetings are scheduled for mid-June and mid-August 2025 to further discuss energy efficiency interventions and to finalize the roadmap for establishing the Resilience Fund, in coordination with Norway. UNDP will provide the steering committee members with updates on the progress of the WEF Nexus project and report that significant progress has been achieved to date.

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The project has recognized the crucial importance of establishing a shared consensus among its main stakeholders for project activities. To achieve this, a series of meetings and consultations were held with key project partners, including the respective departments of PWA, WBWD, PENRA, and MoF. Progress updates were regularly shared with all counterparts, including (MoPIC).

Ultimately, the upcoming phase will be on amplifying the project's communication and visibility. This activity entails a concentrated effort to spotlight forthcoming awareness campaigns, initiatives, and partnerships. Moreover, it involves active participation from beneficiaries, and communities, all aimed at heightening awareness regarding the advocacy of renewable energy, Water & Energy Nexus the mitigation of climate change, the reduction of carbon emissions (carbon footprint), and the preservation of the environment on a broader scale.

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IV. PROGRESS TOWARDS PROJECT OUTPUTS

Intended Outcome as stated in the UNSDCF 22-25
UNSDCF Outcome 4: Palestinians have better access to and management of natural and cultural resources, higher resilience, and adaptation to climate change and more sustainable food systems

Outcome indicator as stated in the Country Programme
PPF outcome 3: Improved sustainable and climate-resilient management of and equitable access to natural resources, including renewable energy
SDG 7.b.1 Installed renewable energy-generating capacity in developing countries (in watts per capita)
Output 3.1: Improved **integration of renewable energy solutions** at sub-national and community level
Indicators: 3.1.1: total solar energy systems capacity (in KWh) installed at private and public institutions/organizations.
3.1.2: number of facilities with installed renewable energy sources.

Applicable Output(s) from the UNDP Strategic Plan 2022 - 2025:
SP Output 4.1: Natural resources protected and managed to enhance sustainable productivity and livelihoods.

SP IRRF Indicator: 4.1.1 Number of people directly benefitting from initiatives to protect nature and promote sustainable use of resources

EXPECTED RESULTS	INDICATORS	BASELINE 2023	TARGET				
		Value	Y1	Y2	Y3	FINAL	Data source of verification
OUTCOME: *Improved sustainable and climate resilient management of and equitable access to natural resources, including renewable energy.*	*1.1 Number of people directly benefitting from initiatives to protect nature and promote sustainable use of natural resources*	0	0	333,000	400,000	733,000	PWA Records
	1.2 Annual savings US$ from cost-reduction in electricity use	0	0	270,000	780,000	1,050,000	MoF, Discos financial reports.
	1.3 Quantity of $CO_{2eq.}$ ton avoided annually	0	0	21,046	28,060	49,106	Project completion report
Output 1: *Solar PV system is developed and operationalized including energy efficiency measures at the identified water facilities in the north and south of the West Bank.*	*1.1 Total capacity of installed solar PV systems in KWp*	0	0	1080	2,420	3,500	Project progress report
	1.2 Number of facilities with installed renewable energy sources	0	0	9	18	27	Project completion report
	1.3 Quantity of energy annually generated by the installed solar energy system in MWh	0	0	1675	3,753	5,425	System commissioning report
	1.4 Number of energy-efficient systems implemented	0	0	25	27	100	Project progress reports.
Output 2: *Resilience fund for wells' sustainable operation established and operationalized*	*2.1 Availability of a functional resilience fund for operational sustainability of water wells.*	No	0	Yes	0	Yes	Note from the meeting of NWC Board of directors

Table 02: Project indicators -result framework

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V. Project Risks and Issues

a. Updated project risks and actions

The risks described in the table below are part of the Project Document. Risks are monitored, reviewed, and updated regularly and will be reflected accordingly in future reporting.

No.	Risk	Risk description and management measures	Responsibility	Deadline	Status
1	Increasing escalating in the West Bank including settlers' violence and high restrictions on movement	UNDP, in coordination with UNDSS, will continuously monitor the security situation across the West Bank, and assess the potential impact on the project implementation in the targeted project locations. This situation will most likely impact access to project sites and entry of equipment needed for the rehabilitations of targeted wells. UNDP has dealt with similar scenarios in the past and has the necessary experience to adapt to changes in project implementation. Access to project sites will be guided by UNDSS security clearance, meeting with stakeholder will be conducted via virtual platforms, and clearance for COGAT regarding entry of materials will be submitted in advance.	UNDP/PAPP	Periodic	High
2	Lack of coordination with and engagement of NWC	The establishment of NWC is ongoing. Strategic development and business plans were developed and approved. In addition to PWA's representation in the project board, UNDP will include the CEO of the NWC as the senior beneficiary of the project to ensure integration with NWC strategic plans, ownership and effective coordination.	UNDP/PAPP	Periodic	Moderate
3	Delays of entry of equipment and increase of cost	Due to deterioration of security situation in Palestine and region shipment cost has dramatically increased. UNDP to consider the new shipment cost in the project budget and to coordinate in advance for entry of equipment.	UNDP/PAPP	Periodic	High
4	People in targeted communities, particularly women and girls, may be	UNDP/PAPP – through its project team and with support from PSEAH Focal Point - will ensure all Implementing Partners and Contractors / Suppliers are well aware of UNDP's Zero Tolerance toward Sexual Misconduct, as	UNDP/PAPP	Periodic	No change

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	exposed to Sexual Exploitation and Abuse (SEA).	well as their contractual requirements / obligations related to the Protection against Sexual Exploitation and Abuse (PSEA). UNDP/PAPP – through its project team and with support from PSEAH Focal Point - will ensure people in the targeted communities are informed of channels available for reporting incidents of Sexual Exploitation and Abuse (incl. UNDP's official corporate reporting mechanism – i.e., Office of Audit and Investigations; Community-Based Complaint Mechanism established by oPt PSEA Network, incl. SAWA helpline).			
5.	Negative impact on climate/environment	Apply environment coping mechanisms throughout the lifecycle of the project in accordance with UNDP's social and Environmental overarching strategy. Promote the deployment of green and sustainable infrastructure. Follow and implement the local environment rules and regulations. mitigate negative social and environmental impact on local community throughout the lifecycle of the project in accordance with UNDP's social and Environmental overarching strategy. Advocacy and awareness plans are in place.	UNDP/PAPP	Periodic	Moderate
6.	Risks related to occupational health and safety due to physical hazards during Project implementation	Implementation of safety and security arrangements in line with UNDP safety policy for civil works.	UNDP/PAPP	Periodic	Moderate
7.	Disruption in wells' operation because of installation of PV systems and energy efficiency solutions	Preparation of implementation plans in full consultations with PWA and WBWD. Reflect on the need to minimize disruption of wells' operation during the implementation of the project under the procurement bidding documents.	UNDP/PAPP	Periodic	Moderate

Table 03: Project Risks

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b. Updated project issues and actions

During the reporting period, several issues were faced as summarized here below, which entail actions at several levels for ensuring the alignment of the activities with the original strategic scope:

- Throughout the initial assessment preparation and the subsequent site visits conducted by the consultant, it came to light that certain wells, which had been referenced in the project documents, were found to be unsuitable for hosting the PV systems. This determination was reached due to factors such as unsuitable/land availability, shading concerns, or lack of accessibility. As a remedy, the decision will be made to replace these wells with more suitable alternatives.

- The War on Gaza and the War between Iran and Israel and the subsequent political instability have caused an approximate 20 days delay in initiating the site visits, impacting the project timeline.
  Action: UNDP assures stakeholders of its commitment to mitigating the impact of the delay, prioritizing safety, and providing regular updates on the revised schedule.

- Finalizing the resilience fund /business model for managing generated electricity.
  Action: Al Diyar jointly with UNDP will develop a comprehensive business model, presented it to project stakeholders for review and approval.

- Finalizing the Walk-Through Energy Audit Report and design energy efficiency interventions.
  Action: The Energy Audit Report will be drafted for stakeholder review. Upon endorsement, UNDP will proceed with detailed designs, procurement, and practical implementation of energy efficiency measures.

- Development and production of communication tools to highlight project impact.
  Action: UNDP plans to create communication tools, including awareness campaigns and media initiatives, to amplify the project's impact at the local level.
  These updated issues and actions reflect the ongoing efforts to address challenges and ensure the successful implementation of the project.

VI. Project Cross-Cutting issues:

UNDP is committed to ensuring gender mainstreaming in all its programmatic interventions, with a view to actively contribute to achieving gender equality – including through supporting women's empowerment. As such, UNDP/PAPP se to adopt relevant gender mainstreaming strategies within the relatively limited scope of this project, particularly by ensuring the project's implementation approaches are gender sensitive.

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UNDP/PAPP took steps to advocate for and prioritize the involvement of proficient female engineers and experts in the field of renewable energy. This strategic emphasis seeks to reinforce women's participation and leadership within the transition towards eco-friendly and sustainable energy solutions. Moreover, it seeks to enhance women's access to and involvement in a sector that has traditionally been male dominated.

Environmental sustainability and climate change adaptation and mitigation are at the core of this project, which intends to contribute to addressing climate change issues through investment in solar energy systems and energy efficiency at targeted water facilities. Such interventions not only can reduce wells' operational expenses but can also decrease their carbon footprint and dependency on traditional, non-renewable energy sources.

Lastly, the forthcoming report will comprehensively address the other cross-cutting concerns, providing detailed insights into these aspects, including the communication and visibility strategy.

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VII. Lessons Learned

The planning phase of the WEF nexus Project has provided valuable insights with major learning curve for:
Diligent Output 1: Solar PV system is developed and operationalized for improved operational sustainability of identified water facilities including Undertake project energy audit, design & overall supervision for mainstreaming EE and RE at 27 wells sites and Output 2: a Resilience fund for wells' sustainable operation established and operationalized

The role of the national counterparts considers fundamental for the facilitation of the implementation and preserving the investment through sustainable operation and management. The project has considered active mechanisms to empower the leadership of the national counterparts.

The WEF Nexus project in the West Bank has laid a strong foundation for increased investment in renewable energy and energy efficiency. During the mobilization phase, several institutions and beneficiaries have requested support, potentially paving the way for scaling up this approach at the national level in the future. The development of a robust business model for the management and operation of solar energy resources has influenced national thinking, encouraging the adoption of this approach in both current and future investments.

National counterparts—including PWA, PENRA, and WBWD/NWC—expressed their appreciation to supporting partners such as Norway, the Netherlands, and UNDP. These projects represent a vital component of the broader national strategy for sustainable natural resource management, supporting long-term environmental solutions and promoting equitable access to resources. By integrating renewable energy solutions into public infrastructure, UNDP is enhancing the sustainability and availability of natural resources. All stakeholders emphasized that this is a truly impactful programme, demonstrating the powerful synergies achieved by addressing the intersection of water and renewable energy.

Risk Management, Political instability risks affecting project execution and material procurement.

Monitoring and Communication: UNDP thoroughly oversees each project activity, closely monitors overall progress, and maintains continuous communication with stakeholders for ongoing success.

These additional insights and actions further highlight the project's adaptability, commitment to stakeholders, and strategic considerations for long-term success, despite challenges posed by external factors like political instability. The emphasis on proactive risk management and stakeholder engagement remains central to the project's effective execution.

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VIII. Conclusions and Way Forward

In summary, the evident commitment of UNDP to careful attention and accuracy during this phase is reflected in the document's poised readiness for evaluation by relevant stakeholders. Their thorough examination and subsequent endorsement play a crucial role in laying the foundation for the subsequent stages of the project.

Looking ahead, UNDP has set out a strategic roadmap for the upcoming period. This plan includes finalizing the engineering and technical documentation for the photovoltaic (PV) system, as well as preparing an initial draft of the resilience fund and business model. A key priority will also be the formulation of a practical action plan, pending approval from the relevant stakeholders.

Furthermore, the development of targeted energy efficiency interventions, the enhancement of project communication and visibility, and the establishment of Memoranda of Understanding (MoUs) with stakeholders are integral parts of the strategic framework. Collectively, these planned activities will support the project's dynamic and comprehensive progression toward its objectives.

UNDP's strategic plan for the upcoming period includes the following key actions:

- Designing and implementing energy efficiency interventions to optimize system performance.
- Focusing on communication and visibility initiatives to raise environmental awareness in partnership with key stakeholders.
- Collaborating with the Palestinian Water Authority (PWA) to identify additional water facilities for solar energy and energy efficiency investments. Twelve additional facilities are currently in the design stage and will soon be ready for resource mobilization, thus expanding the revolving fund.
- Establishing a partnership with DISCOs, in coordination with PWA, PENRA, and UNDP, to implement solar energy systems at water wells and facilities. This will ensure both on- and off-grid connections in line with national policy and support the development of a resilience fund and business model for managing the generated resources.

IX. Financial Status

- The following table shows the schedule of the received instalments in NoK and US$ respectively.

Date	NoK Value	US$ Value
December 20, 2024	14,356,435.65	US$ 1,288,034.71
	Total	**US$ 1,288,034.71**

- ***Detailed Financial Report is attached.***

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X. Annexes

Annex No	Subject
1	System based Financial report as of June 30,2025 (CPFR- 30 June 2025)- (Disclaimer: Data contained in this financial report CPFR Quantum generated) section is an extract of UNDP financial records. All financial provided is provisional, Quarter 2 is not closed yet)
2	Leaflet for WEF Nexus

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* Project: 01003568 (Water - Energy- Food (WEF) Nexus) - Solar Powered Water Wells in the West Bank

Financial Report as of 30 June 2025

Outputs	No	Activity	Unit	# of units	Unit Rate (USD)	Total Amount USD	Total Disbursement as of 31 December 2024	Disbursement from 01 January 2025 to 30 June 2025	Total Disbursement	Remaining Balance
1. Output 1: Solar PV system is developed and operationalized for improved operational sustainability of identified water facilities	1.1	Undertake project energy audit, design & overall supervision for mainstreaming EE and RE at 15 wells sites*	Lump Sum	1	$ 100,000	$ 100,000.0	$ -	$ -	$ -	$ 100,000.0
	1.2	Solar Systems installation and implementation of associated civil and electricity works- 15 wells sites (Capacity 1.8 MW- 120 KWp per well)	No.	15	$ 120,000	$ 1,800,000.0	$ -	$ -	$ -	$ 1,800,000.0
	1.3	Energy efficiency systems and Lightening system for all wells (Energy efficiency systems for 15 wells sites)	No.	15	$ 35,000	$ 525,000.0	$ -	$ -	$ -	$ 525,000.0
	1.4	Prepare operation and maintenance plan including digital monitoring system for the 15 sites and agreement with PS for system maintenance	Lump Sum	1	$ 100,000	$ 100,000.0	$ -	$ 30.8	30.82	$ 99,969.2
		(1) Sub-total output # 1				**$ 2,525,000.0**	$ -	$ 30.8	$ 30.8	$ 2,524,969.2
2. Output 2: a Resilience fund for wells' sustainable operation established and operationalized	2.1	Stakeholders consultation sessions	Lump Sum	1	$ 7,366	$ 7,366.0	$ -	$ -	$ -	$ 7,366.0
	2.2	Develop institutional, legal framework & SOPs for resilience fund	Lump Sum	1	$ 25,000	$ 25,000.0	$ -	$ 46.4	$ 46.4	$ 24,953.6
		Subtotal				**$ 32,366.0**	$ -	$ 46.4	$ 46.4	$ 32,319.6
3.Project Implementation Unit & Operation	3.1	Project Manager NPSA 8 (100%)	Per Month	24	$ 7,158	$ 171,792.0	$ -	$ 18,143.4	$ 18,143.4	$ 153,648.6
	3.2	Project renewable energy site Engineer (100%)	Per Month	24	$ 2,715	$ 65,160.0	$ -	$ -	$ -	$ 65,160.0
	3.3	DPC Quality Assurance and operational support (15%)	Per Month	24	$ 3,200	$ 76,800.0	$ -	$ 24,924.4	$ 24,924.4	$ 51,875.7
		Subtotal				**$ 313,752.0**	$ -	$ 43,067.7	$ 43,067.7	$ 270,684.3
4.Audit, evaluation and project outreach	4.1	External Evaluation, Audit	Lump Sum	1	$ 18,000	$ 18,000.0	$ -	$ -	$ -	$ 18,000.0
		Subtotal				**$ 18,000.0**	$ -	$ -	$ -	$ 18,000.0
		Sub-Total Activities				**$ 2,889,118.0**	$ -	$ 43,144.9	$ 43,144.9	$ 2,845,973.1
	5	(GMS) 8%				**$ 231,129.44**	$ -	$ 3,451.59	$ 3,451.59	$ 227,677.85
	6	**Total**				**$ 3,120,247.44**	$ -	$ 46,596.52	$ 46,596.52	$ 3,073,650.92
		Coordination levy to finance the United Nations Resident Coordinator System 1%				$ 31,202				
		Grand Total USD				**$ 3,151,449.9**	$ -	$ 46,596.52	$ 46,596.5	$ 3,073,650.9

*(PS: Disclaimer: Data contained in this financial report CPFR Quantum generated) section is an extract of UNDP financial records. All financial provided is provisional, Quarter 2 is not closed yet)

Date	Installment No.	installment (NoK) Value	installment (US$) Value	Total Expenses till 30 June 2025
December 20, 2024	First installment	14,356,435.65	1,288,034.71	46,596.5
	Total	14,356,435.65	$1,288,034.71	$46,596.52

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UNITED NATIONS
DEVELOPMENT PROGRAMME

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United Nations Development Programme
Interim Financial Report to the NOR - MINISTRY OF FOREIGN AFFAIRS
As of 30 June 2025

Empowered lives.
Resilient nations.

Donor reference: PID_01003536&01003568
Country: Prog for Palestinian People
Award: 1373328 - PAL_NORWAY_TPCS_01003536&01003568
Project: 01003568 - Water-Energy-Food (WEF) Nexus in the West Bank
Project status: On Going
Fund: Programme Cost Sharing

(in United States dollars)

	Prior years	2025	Cumulative to 2025
	(1)	(2)	(3)
Income/Revenue			
Annual Contributions Revenue[a]	1,288,034.71	-	1,288,034.71
Other Revenue[b]	-	-	-
Transfer to/from other funds	-	-	-
Refunds to donors	-	-	-
Total - Income/Revenue	1,288,034.71	-	1,288,034.71
Expenses			
Staff and other personnel costs	-	-	-
Supplies, commodities, materials	-	-	-
Equipment, vehicle and furniture including depreciation	-	-	-
Contractual services	-	12,388.61	12,388.61
Travel	-	-	-
Transfers and grants to counterparts	-	-	-
General operating and other direct costs	-	30,756.07	30,756.07
Subtotal	-	43,144.68	43,144.68
Programme support costs[c]	-	3,451.59	3,451.59
Total Expenses	-	46,596.27	46,596.27
Balance[d]	1,288,034.71	1,241,438.44	1,241,438.44
Future Expenses[e]			
Balance of un-depreciated assets & inventory purchased	-	-	-
Commitments	-	-	-
Subtotal	-	-	-
Receivables Past due, less advance receipts[e]			
Less: Contributions receivable from donors	-	-	-
Available Resources[f]	1,288,034.71	1,241,438.44	1,241,438.44
Total Contributions Revenue [g]	3,070,978.37	120,200.23	3,191,178.60
Total Contributions Revenue Received [h]	1,288,034.71	-	1,288,034.71
Total Receivables [i]	1,782,943.66	1,903,143.89	1,903,143.89
Deferred Revenue and Advance Receipts [j]	-	-	-

a. Contributions represent recognized revenue based on the payment schedule dates of signed agreements.
b. Other Revenue represents revenue resulting from miscellaneous activities.
c. Programme support (indirect) cost is calculated based on the expenses excluding amounts of foreign exchange gain/loss.
d. Balance in column (2) is inclusive of balance in column (1).
e. Amounts in column (2) are the balances outstanding as of the report date which are included in the available resources. Amounts in column (1) are shown for information purpose only.
f. Balance after future expenses, and contributions receivable from donors (i.e. amounts past due) have been accounted for.
g. Total value of donor contribution as per the signed date of the agreement.
h. Total cash received to-date.
i. Total outstanding amount due from donors, comprising both past due and future due receivables.
j. Contributions that have been received from donors but yet to be recognized as revenue in future years when payment schedules are realized.

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This is to certify that the above statement of revenue, expenses and available resources is correct and that the expenses were incurred in connection with the approved projects for which funds have been received.

DocuSigned by:
E882E40AA1B54B4...

Name: Jaco Cilliers
Title: Resident Representative

23-Jul-2025
(Date)

UNITED NATIONS DEVELOPMENT PROGRAMME