

# OXFAM WATER ESTABLISHMENTS' SUPPORT SUMMATIVE EVALUATION

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# List of Abbreviations

BWE: Bekaa Water Establishment

BMLWE: Beirut Mount Lebanon Water Establishment

**BoQ: Bill of Quantities** 

HDP: Humanitarian-Development-Peace

HR: Human Resources

IFI: Issam Fares Institute at the American University of Beirut

ITSs: Informal Tented Settlements

KIIs: Key Informant Interviews

LCRP: Lebanon Crisis Response Plan

LEWAP: Lebanese Water Actors Platform

NLWE: North Lebanon Water Establishment

**NWSS: National Water Sector Strategy** 

O&M: Operation and Maintenance

OECD-DAC: Organisation for Economic Co-operation and Development - Development Assistance

Committee

SCADA: Supervisory Control and Data Acquisition

SDG: Sustainable Development Goals

SLWE: South Lebanon Water Establishment

**SOPs: Standard Operating Procedures** 

WaSH: Water, Sanitation, and Hygiene

WE: Water Establishment

# **Executive Summary**

This report presents a summative evaluation of Oxfam's support to Lebanon's regional Water Establishments (WEs) over the past decade. Against a backdrop of severe economic crisis, conflict, and institutional fragility, Oxfam's interventions in infrastructure, capacity building, and emergency response have been both highly relevant and effective. The organization played a pioneering role in the sector, introducing strategic initiatives like solarization pre-2019, which proved critical during the nation's subsequent energy (and more broadly, economic) crisis and war.

**Key Findings:** The evaluation finds that Oxfam's support delivered meaningful operational benefits. Solarization projects significantly increased water pumping hours and provided crucial resilience, while technical secondments and on-the-job coaching improved the WEs' internal capacities in procurement and project management. However, the sustainability of these gains is fragile. The primary challenges are a continuous "skill drain" from the WEs, where experienced staff are not replaced, and a lack of institutionalized systems for preventive maintenance, knowledge transfer, and long-term financial planning. This has created an "artificial resilience" that is often dependent on continued external support. Furthermore, research, policy, and advocacy, longtime cornerstones of Oxfam's work, have receded significantly in recent years despite their pertinence.

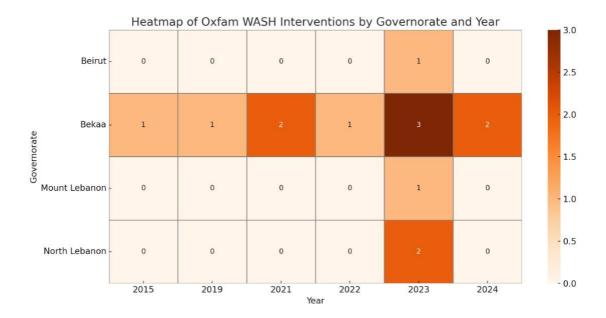
**Conclusions:** Oxfam has successfully helped stabilized essential services and enhanced the technical competencies of its public sector partners. However, its role has shifted over the years from a prominent policy thought leader to a project implementer. A significant policy window is now opening with ongoing governmental reforms, presenting a critical opportunity for Oxfam to reengage at a strategic level and reposition its water program.

**Strategic Recommendations:** To build on its successes, it is recommended that Oxfam adopt a multi-year, modular program approach that integrates humanitarian, development, and peace-building work. Key recommendations include:

- 1. **Systematize Knowledge and Sustainability:** Support WEs in formalizing knowledge through SOPs and training-of-trainers programs to "turnover-proof" capacity gains. Mandate that all future projects include full lifecycle costing and O&M plans. Use digital tools in combination with periodic, adapted, and targeted capacity building to ensure WEs have sufficient resident capacity.
- 2. **Lead on Technical Standards:** Drive the development of national standards for solarization to guide all sector actors and influence donor investments. Focus on WEs (especially BWE) where the need is most felt and Oxfam's experience is most relevant. Engage private sector actors to promote compliance and market readiness.
- 3. **Re-engage in Policy Advocacy:** Leverage the current policy window to rebuild internal advocacy capacity and resume an influential role, effectively "driving from the backseat" to shape a more resilient and sustainable water sector. Focus on partnerships, forums, affiliate collaboration, and the in-house talent necessary to reassume a 'Policy and Practice' position.

# 1. Introduction

Since 2015, Oxfam in Lebanon has played a pioneering role in supporting the resilience and development of Lebanon's public water institutions, particularly the regional WEs. This engagement, which evolved from humanitarian WaSH programming, saw Oxfam become a vanguard, influencing public strategy by introducing initiatives like solarization pre-2019, long before the national crisis made it a widespread practice. Against a backdrop of chronic economic crisis, violent conflict, and a fragile institutional landscape, Oxfam's systemic engagement has matured to include infrastructure rehabilitation, technical staff secondment, and capacity development. This work has focused chiefly on the Bekaa Water Establishment (BWE) but has also targeted the other three WEs at various times: the South Lebanon Water Establishment (SLWE), the North Lebanon Water Establishment (NLWE), and the Beirut Mount Lebanon Water Establishment (BMLWE).



This summative evaluation assesses the impact and sustainability of Oxfam's support to the WEs and the broader public water sector over the past decade. The overarching objective is to assess the impact, sustainability, and institutional relevance of Oxfam's interventions across technical, operational, and policy levels. Drawing on internal documentation, stakeholder interviews, and field observations, the evaluation aims to provide critical feedback and actionable recommendations to inform Oxfam's strategic direction, rather than merely documenting findings for the record.

Oxfam's work has been critical to the evolution of the water sector, and may be considered visionary in its early years, but has gradually become engineering/delivery focused. Oxfam's programming is highly regarded by counterparts at public institutions and is a source of stability for WEs (especially BWE). Capitalization on results, however, is lacking. WEs and the sector as a whole are suffering a polycrisis that severely limits the sustainability of interventions.

# 2. Methodology and Limitations

#### 2.1. Methodological Approach

The evaluation followed a mixed-method, utilization-focused approach aligned with the OECD-DAC evaluation criteria (effectiveness, relevance, impact, efficiency, coherence, sustainability). The methodology was informed by the complex operational environment in Lebanon's water sector and the multi-faceted nature of Oxfam's support, incorporating multiple data sources for robust analysis.

#### 2.1.1. Desk Review

An extensive desk review was conducted to understand the program context, intervention scope, and documented outputs. Key documents included Oxfam project proposals and reports, capacity and technical assessments, endline reports, and public sector policy documents (e.g., National Water Sector Strategy, Lebanon Crisis Response Plan). The desk review established the baseline for thematic analysis and guided the development of the evaluation matrix.

#### 2.1.2. Key Informant Interviews (KIIs)

Primary data collection relied heavily on 19 semi-structured key informant interviews with a diverse range of stakeholders, including WE directors, managers, and technicians; current and former Oxfam staff and seconded experts; and local authorities. The KIIs, guided by a pre-validated protocol, ensured representation across geographic regions and functional roles and were conducted in either Arabic or English (or a combination of the two), depending on interviewee preference.

#### 2.1.3. Field Observations

Direct field visits were conducted at selected intervention sites in Kfarzabad and Qab Elias. Observation checklists and unstructured interviews were used to document technical conditions, system functionality, maintenance practices, and operational challenges.

#### 2.1.4. Triangulation and Analysis

Findings were cross-validated across all data sources to ensure credibility and minimize bias. This triangulation allowed for a comparison between reported outcomes (KIIs), documentary records (desk review), and technical realities observed on the ground (field visits). The analysis was structured around the evaluation matrix, which organized findings by the main thematic areas of the intervention, which have since been revised and consolidated—Institutional Capacity & Public Policy, Infrastructure Systems & Solar Power, and Humanitarian Emergency & Crisis Response—as well as by OECD-DAC criteria and alignment with the Humanitarian-Development-Peace (HDP) Nexus and Sustainable Development Goals (SDGs).

## 2.2. Study Limitations

While every effort was made to ensure methodological rigor, several limitations were encountered:

**Institutional Memory Gaps:** A skill drain, where WE experienced staff leaving without being replaced, led to gaps in institutional memory, particularly for interventions implemented prior to 2019, and it was apparent that archives are not readily accessible by current staff.

**Incomplete Records:** A lack of archived records at Oxfam for early-phase interventions hindered a full reconstruction of project timelines, intended outcomes, and quantitative pre- and post-intervention comparisons. There is a particular gap in documents before a specific cutoff date.

**Attribution Complexity:** The multi-stakeholder environment, with numerous actors supporting WEs, made it challenging to isolate Oxfam's unique contribution to sector-wide outcomes.

**Response Bias:** The partnership with WEs may have introduced a positive reporting bias. This risk was mitigated through triangulation with field observations and third-party sources.

**Evolving Context:** The ongoing national crisis and security volatility complicated comparisons across time periods, particularly for institutional development efforts facing significant external constraints.

Despite these limitations, the evaluation team is confident that the multi-source, triangulated approach yielded credible and balanced findings.

# 3. Findings

#### 3.1. Institutional Capacity & Public Policy

#### Effectiveness

Oxfam's capacity building interventions for the WEs contributed meaningfully to enhancing technical and operational competencies. Training on solar system design, maintenance, SCADA, and procurement empowered staff with greater self-sufficiency. A BWE engineer emphasized:

"Before these trainings, we had to fully depend on the implementing partner's reports. Now, I can review solar designs, check the inverter sizing, and assess the quality of tender submissions myself."

Technicians also demonstrated gains on maintenance and troubleshooting. One senior manager explained:

"In the past, whenever the solar system stopped, we waited for someone from outside to troubleshoot. Now, I can check if it's the sensors or the inverter and fix simple issues before they escalate."

On-the-job coaching was particularly effective. An expert described: "Walking together through real tender documents, reviewing designs, correcting mistakes during actual projects — that's where real learning happened." However, effectiveness was sometimes limited by mismatched skill levels in training groups and content repetition. A BWE staff member commented:

"We attended three trainings, but the topics were almost the same every time; we hoped for something more advanced in the later rounds."

Technical secondments also played a critical role in temporarily filling institutional capacity gaps. At BWE, seconded renewable energy engineers were cited as highly effective, directly supporting design review, tender evaluation, and site supervision. A staff member described: "The seconded engineer worked closely with us — reviewing designs, checking sizing, attending field visits, and supporting the evaluation committees during tenders." This embedding of expertise facilitated knowledge transfer and bridged communication with contractors.

While direct influence on specific national governance policies was not documented within these projects, Oxfam's broader engagement demonstrates a consistent commitment to policy dialogue and advocacy. Key platforms for this engagement include the Lebanon Water Forum, an annual event initiated by Oxfam to provide a platform for dialogue among diverse stakeholders. Furthermore, Oxfam has engaged in collaborations with academic and research institutions, such as its work with the Issam Fares Institute (IFI) at AUB and the Lebanese Water Actors Platform (LEWAP) on water-energy nexus workshops. Oxfam has also produced numerous publications on WaSH issues in Lebanon, including policy briefs and research studies. An Oxfam staff member emphasized how this engagement translates to practical influence:

"Our involvement in sector coordination allowed us to help shape solar technical standards and support harmonized practices across multiple implementing agencies."

#### Relevance

The capacity-building and secondment programs were highly relevant to the WEs' immediate needs, directly addressing gaps created by the sector-wide shift to solarization. An engineer confirmed the training content was precisely targeted:

"We wanted to learn how to review design studies ourselves — not just to read reports provided by suppliers. The trainings covered exactly that..."

Similarly, secondments filled a clear void, as a WE manager explained: "We had engineers, but not enough with practical experience in renewable energy. The seconded person filled a critical gap at the right time."

However, the relevance of these capacity-building initiatives was significantly weakened by how participants were selected. Multiple staff reported that attendance was often based on seniority or availability rather than technical relevance or was influenced by political or personal factors rather than merit. This led to a mismatch between participant roles and training content, with one WE department head explaining: "Sometimes people attended because they were free that day, not because they worked on solar systems." Another noted, "We sometimes choose participants based on availability more than technical relevance." This approach limits the potential impact and sustainable institutionalization of the skills being taught. Some stakeholders also felt that while technical support was valuable, it needed to be complemented by assistance in administrative and financial planning. As one senior official noted:

"The technical support was useful, but we also need long-term support in budgeting, HR, and administrative systems to sustain what was built."

#### **Impact**

The interventions produced a clear operational impact, with WEs demonstrating improved capacity to manage solar projects and supervise contractors. A WE manager reflected on this newfound confidence:

"Now, when a new project starts, we sit with the NGO's engineers from day one. We can negotiate technical specifications based on what we learned."

Working alongside seconded experts had a direct impact on staff skills, with a BWE engineer highlighting, "Now after working with him, we can handle design reviews ourselves and make corrections when we see mistakes in sizing or technical specs." However, the impact of these capacity gains is fragile. The primary challenge is a skill drain, particularly at the middle-management level, where experienced staff are not replaced, leaving the remaining personnel overstretched. The problem was summarized by a senior manager:

"Half of the trained staff are no longer with us. Some were headhunted after gaining experience here."

This fragility is compounded by the temporary nature of secondments. As one manager described, "the benefit was clear during the secondment, but if he left, not all the knowledge will stay because we have new staff now who didn't benefit from this experience." Ultimately, while technical processes improved, their impact is constrained by stalled national policy reforms and the WEs' weak financial

autonomy. The inability to measure outcomes is also sometimes due to a lack of functioning physical metering or monitoring systems. A WE director summarized the dilemma:

"The technical improvements are real, but without broader reforms, we still face limits on how much we can apply them systematically."

#### Sustainability

The sustainability of capacity-building efforts is the most significant challenge. Gains are consistently undermined by the skill drain and a lack of institutional mechanisms for knowledge retention. WEs lack training-of-trainers programs, documented SOPs, and dedicated budgets for specialized roles, preventing the systematic onboarding of new staff. A lack of commitment to structured processes from some WEs, notably BWE, further hinders long-term progress. The inability to fund permanent specialized positions is a key barrier, as one official stressed:

"We don't have the financial ability to hire or retain specialized renewable energy engineers permanently."

This creates a dependency where resilience relies on Oxfam's continued presence. Without addressing these root causes, valuable knowledge and skills will continue to dissipate.

#### 3.2. Infrastructure Systems & Solar Power

#### Effectiveness

Oxfam's infrastructure interventions were effective in expanding water access. Network extensions connected previously unserved communities, directly reducing their reliance on expensive water trucking. One technical staff from Bekaa noted:

"Several villages were completely unconnected; these network expansions allowed us to finally reach people who relied entirely on water trucking."

A WE manager confirmed the economic benefit: "Families used to pay for water trucks; now with the network extension, they receive regular water at much lower cost." These interventions also improved operational efficiency by stabilizing pressure and reducing water losses. Such interventions are, however, increasingly uncommon and deprioritized in favor of targeting production systems.

#### Relevance

The infrastructure projects were highly relevant, targeting vulnerable communities and aligning with Oxfam's commitment to equitable service. These interventions also helped mitigate local tensions over scarce resources. A local official emphasized:

"The new pipelines reduced tensions because both Lebanese and Syrians in the village were struggling with water shortages before."

Network upgrades were also relevant to broader system performance, stabilizing pressure and allowing the increased water production from solarized stations to be reliably distributed.

#### **Impact**

The impact of solarization has been transformative, improving water supply continuity and providing strategic resilience. Solar power allowed stations to dramatically increase daily pumping hours. For instance, in Ras Baalbeck, Hour Taala, and Al Ain in the Bekaa, the stabilization of water supply had visible impacts on communities. A BWE engineer noted:

"Before solar, the station operated for only 4 to 6 hours a day... Now, with solar, we often reach 18 to 20 hours."

This had a visible impact on communities, as a WE manager in NLWE highlighted: "Before, people were buying water daily from trucks or private wells. Now the station works day and night, and they rarely need to purchase additional water."

Financially, while diesel remains largely unaffordable, solarization has helped WEs stretch their limited diesel reserves. In quantitative terms, data collected from NLWE indicates that at several stations, reliance on generator fuel dropped by more than 40%, resulting in significant monthly cost reductions. Similar figures were alluded to for Zahle. Moreover, by preventing service interruptions, solarization avoids the loss of revenue potential from water fees, a significant opportunity cost for the WEs, which may otherwise not invest in systems that cannot recover their operating costs or maybe driven out by municipalities. Strategically, solarization was a lifeline during the fuel crisis. As one WE manager stated:

"If not for the solar plants, most of our pumping would have completely stopped during the fuel crisis in 2021. It allowed us to keep essential services running when the whole country was paralyzed."

Field observations and reports from WEs also suggest that Oxfam-implemented solar systems are more downtime-proof and resilient compared to those of other partners.

#### Efficiency

The interventions demonstrated strong efficiency in procurement and delivery, attributed to transparent processes and careful market engagement that ensured competitive pricing while maintaining quality. An officer noted:

"We made sure to request full technical submittals and vet supplier experience before awarding contracts — this helped avoid some of the quality problems we've seen in other projects."

Efficient coordination with WEs and other NGOs minimized duplication. As one WE focal point emphasized, "Oxfam sat with us from the beginning to map out priority sites. This helped prevent having three NGOs working on the same station while others had nothing." This efficiency meant that during the fuel crisis, solarized facilities remained operational. A BMLWE manager stated:

"We never reached the point of full water cuts like other areas because of the solar system. Without it, people would have fought over water."

#### Sustainability

Despite operational success, the long-term sustainability of infrastructure is fragile. The primary challenges are the lack of institutionalized preventive maintenance and difficulties in procuring spare parts. Many WEs have no formal maintenance schedules or equipment, with one operator admitting:

"We clean the panels when we can, but we don't have a formal schedule... When inverters give errors, sometimes we have to call for external help."

In some locations, Oxfam supported the establishment of community-led WaSH committees to support minor maintenance and foster local ownership. In Badawi, for example, local committees were formed to handle routine cleaning of panels and coordinate with WE staff when technical issues arose. While this improved response times for minor issues, it remains insufficient for complex technical failures and has not been institutionalized as a standard practice.

The challenge is deepened by the fact that operators are often hired not based on skills but on succession or other factors, and they typically receive only basic commissioning training from suppliers. The lack of standardized equipment brands and spare parts makes intervention difficult without established and flexible framework contracts. A seconded engineer explained, "When a component fails, it can take weeks to find replacements... Delays mean entire systems sit idle for long periods." Financial sustainability is also a key constraint, as few WEs have created dedicated budget lines for ongoing maintenance or accounted for the full lifecycle costs of solar facilities and associated SCADA systems. This creates an "artificial resilience." As one person noted:

"We are more resilient now, but it's still fragile. If the solar system breaks or the pump fails, we can't fix it on our own."

#### 3.3. Humanitarian Emergency & Crisis Response

The evaluation separates Oxfam's emergency-related interventions into two distinct but complementary components: **Emergency Rehabilitation**, covering institutional support to WEs

during the protracted national crisis, and **Conflict-Related Emergency Response**, focusing on the recent humanitarian response in South Lebanon.

#### Effectiveness

Oxfam's emergency interventions were highly effective at stabilizing WASH services. The rehabilitation of failed equipment allowed WEs to maintain operational continuity. A WE engineer explained:

"When inverters failed or chlorination stopped, Oxfam stepped in with spare parts and repairs. Without this, many stations would have remained out of service."

In conflict-affected areas, the rapid delivery of tanks and spare parts mitigated the immediate risk of a total service collapse. Oxfam's presence was widely recognized, with one respondent noting: "We wouldn't have recovered if not for Oxfam's presence — others waited for the shelling to stop; Oxfam showed up during."

#### Relevance

The emergency response was directly relevant to the urgent needs arising from conflict and infrastructure failure. In South Lebanon, the provision of storage tanks and repairs was a critical lifeline. A municipal official stated:

"When our station was hit, Oxfam stepped in within weeks. They fixed what they could, provided tanks, and helped us resume pumping."

#### **Impact**

The immediate impact was the rapid stabilization of WASH services in frontline communities. The interventions also had a clear impact on local resilience; pre-existing Oxfam-supported assets enabled municipalities and WEs to reactivate systems quickly during the 2024 conflict escalation. One stakeholder highlighted this link:

"We had everything in place because of Oxfam's earlier support. When the crisis came, we just had to clean the tank and switch the solar back on."

However, this also highlighted the sector's systemic fragility and lack of robust contingency planning.

#### Efficiency

The timeliness of the emergency response was generally strong. For rehabilitation work, a WE manager stated, "Oxfam's response was fast. They secured the parts we couldn't access or afford." However, delays sometimes occurred due to the need to source specialized parts internationally or,

in conflict zones, due to administrative and security bottlenecks. As one informant described, "Oxfam maintained presence in coordination but at times material support came later due to delays."

#### Coherence

Oxfam's emergency activities were coherent with broader humanitarian efforts, implemented within the LCRP coordination framework. The integration of the emergency response with Oxfam's ongoing development partnerships with the WEs strengthened the internal consistency of its programming. Oxfam is also active in relevant coordination forums and partakes in (voluntary) assessments.

# 4. Cross-cutting Themes

#### 4.1. Sector Coherence and HDP Nexus

Oxfam's program has passively decoupled its humanitarian, development, and peace work, with peacebuilding becoming deemphasized in water programming. While initiatives like the Lebanon Water Forum contribute to sector coherence, a central challenge remains reconciling urgent humanitarian responses with long-term development and peace imperatives. Peacebuilding, while crucial, is often an implied but unaddressed element of WaSH programming. While addressing water access can mitigate inter-community tensions, Oxfam's engagement with conflict-affected municipalities is not formally integrated into peace-sensitive planning or explicitly linked to social cohesion and stabilization initiatives, representing an untapped pillar of the HDP nexus.

**Parallel Systems and Integration Gaps:** Humanitarian organizations often operate independently of national systems. WEs frequently receive fragmented aid lacking a unified recovery strategy.

**Unsustainable Donor-Driven Resilience:** Resilience-building activities, such as solar installations, often proceed without robust financial or institutional sustainability strategies, creating an "artificial resilience" vulnerable to collapse when aid ceases.

**Lack of Nexus-Oriented Coordination:** A strong coordinating structure that unites humanitarian, development, and peace-building actors around a shared WaSH recovery strategy is absent.

As emphasized by the IRC WaSH Journal:

"Sustainability is not just a technical issue. It's a governance challenge, a financing question, and a political process. If we ignore that, we build systems that work — until they don't."

#### 4.2. Institutional Impact & Resilience

Oxfam's sustained engagement has yielded noticeable institutional improvements. However, these advancements are fragile and, as one staff member noted, "still thin." While there are pockets of

improved practice and localized crisis response capacity, the reliance on Oxfam's continued involvement points to a resilience that is not yet deeply institutionalized. Key challenges include:

**Weak Knowledge Retention:** Without staffing stability or formalized training programs, crucial expertise is often lost.

**Unsustainable Resilience:** Much of the observed resilience relies on Oxfam's (or other partners, such as UNICEF) continued involvement, with WEs often lacking internal O&M budgets.

**Deficient Learning Mechanisms:** Formal processes for documenting and internalizing lessons learned are lacking.

As noted by an Oxfam Program Staff member:

"We've seen real improvement — but it's still thin. One wrong turn, one departure, and things unravel."

#### 4.3. Equity and Inclusion

While gender disparity exists, the core challenge observed in WE projects is not primarily one of gender exclusion but a broader lack of equitable, merit-based opportunities. The selection of staff for training and certain operational roles is often influenced by political or personal factors rather than the functional needs of the institution. This leads to a mismatch between skills and roles and limits the effectiveness of capacity-building interventions. Women remain significantly underrepresented in technical roles, but this is symptomatic of these deeper, systemic issues in HR practices. Projects often did not systematically incorporate equity analysis or monitor differential impacts on population segments. As noted by a municipal official in Bekaa:

"It's not that women can't do the job — it's just that no one ever planned for them to be part of the system."

#### 4.4. Alignment with the National Water Sector Strategy (NWSS)

Oxfam's WaSH activities demonstrated notable alignment with the 2020 NWSS, however systemic challenges impeded full adherence to the strategy's broader objectives.

**Strong Conformity Areas:** Oxfam's initiatives strongly aligned with priorities in Renewable Energy, Capacity Strengthening, Emergency Preparedness & Response, Network Expansion, Community Engagement, and Institutional Support.

**Partial Conformity & Shortcomings:** Several areas exhibited significant shortcomings, including Sustainability & O&M, Monitoring & Data Systems, Equity in Planning, and Gender & Social Inclusion.

Projects often lacked long-term funding plans and equitable participant selection. As a BWE Engineer noted:

"Oxfam aligned with the strategy — more than others. But without national leadership, we're all building in silos."

#### 4.5. Contribution to Sustainable Development Goals

Oxfam's water interventions have contributed to several Sustainable Development Goals (SDGs). These multi-dimensional efforts, encompassing infrastructure rehabilitation, solarization, capacity building, and emergency response, addressed key targets. Specifically, Oxfam's work supported:

**SDG 6 (Clean Water and Sanitation)** by expanding access to piped water, ensuring service continuity through emergency repairs and solar systems, and improving water quality.

**SDG 7 (Affordable and Clean Energy)** by substantially increasing the use of renewable energy through widespread solar-powered pumping systems, reducing reliance on fossil fuels.

**SDG 13 (Climate Action)** by contributing to climate change mitigation through reduced fuel dependency and strengthening the operational resilience of Water Establishments (WEs) against various crises.

**SDG 16 (Peace, Justice, and Strong Institutions)** by fostering more effective, accountable, and transparent institutions through support for procurement processes, technical oversight, and capacity building within WEs.

#### 5. Conclusions

#### 5.1. Overall Performance

Oxfam's interventions were highly relevant and effective, responding to urgent infrastructure needs and capacity gaps while improving service continuity. The organization's technical leadership in solarization was a particular strength, enhancing the WEs' operational resilience. The combined approaches of technical secondments and on-the-job coaching led to tangible improvements in technical competencies.

#### 5.2. Sustainability and Resilience

Despite strong operational gains, long-term sustainability remains fragile. This is driven by persistent financial constraints, a continuous skill drain from the WEs, and the absence of systemic preventive maintenance frameworks. Institutional learning is informal and highly exposed to personnel changes. While Oxfam's support enhanced local resilience, the WEs remain structurally vulnerable without broader sectoral reforms.

## 5.3. Policy and Sector-Level Engagement

Oxfam has contributed constructively to sector coordination, particularly in shaping technical standards. However, its direct influence on national policy has been limited. Critically, over the years, Oxfam's role has shifted from being a prominent leader in policy and advocacy research to one focused on a larger implementation footprint. A significant policy window is now opening due to ongoing governmental reforms, including the passing of executive decrees for the new water law and a restructuring of the ministry and WEs. This presents a critical opportunity for Oxfam to reengage and influence policy from an evidence-based, technically-informed standpoint.

#### 6. Recommendations

The intersection of direct implementation, policy influence, and capacity building should guide Oxfam's future strategy. Instead of pursuing standalone projects, Oxfam should develop a multi-year, holistic program that is broken down into modular components that can be marketed to donors.

#### 6.1. Systemic and Institutional Strengthening

**Formalize Knowledge Transfer:** To "turnover-proof" knowledge, support WEs in developing internal training-of-trainers models and Standard Operating Procedures (SOPs). Create simplified, accessible handover documentation for operators and use modern channels (e.g., cloud storage, WhatsApp groups) for knowledge retention and support.

**Embed Sustainability in Project Design:** Mandate that all future projects include full lifecycle costing and costed O&M plans. Advocate for dedicated O&M budget lines within WE financial plans and support the development of framework contracts for standardized spare parts.

**Invest in Human Capital:** Focus secondment programs on phased skills transfer with clear exit strategies. Shift from event-based capacity building to periodic, continuous learning programs with structured onboarding for new staff. Demand WEs recruit as a precondition for continued support.

**Promote WE-led Planning:** Support WEs in conducting more extensive assessment and prioritization processes that balance technical needs with political realities, moving towards greater ownership and impartiality. Support WE-led initiatives to tackle the broader energy challenge.

# 6.2. Technical and Operational Priorities

**Develop and Formalize Technical Standards:** Lead the development of national solarization standards to guide design and implementation for all actors. These standards should account for future grid hybridization and engage the private sector (suppliers, contractors) to improve quality and influence donor budgets.

**Expand Preventive Maintenance Frameworks:** Collaborate with WEs to establish and implement formal preventive maintenance schedules and asset management systems for all key infrastructure. Support in the carrying out of assessments of existing infrastructure regardless of Oxfam's involvement (or not) in its installation, rehabilitation, or optimization.

**Adapt Emergency Response Modalities:** Formalize successful rapid rehabilitation approaches into scalable emergency response protocols. Develop contingency plans with WEs, including the prepositioning of critical spare parts where feasible. Focus on resilience-centered interventions.

#### 6.3. Policy, Coordination, and Governance

**Re-engage as a Policy Thought Leader:** Rebuild internal capacity for technically-informed WaSH policy and advocacy to leverage the current policy window. This requires investing in research and evidence to resume an influential role, effectively driving from the backseat.

**Build partnerships and consortia**: Leverage Oxfam's proven capacity and reputation to reestablish partnerships with advocacy allies and build consortia with organizations whose programming complements that of Oxfam, such as those tackling Non-Revenue Water, Agricultural Water Management, Disaster Risk Reduction, and Water Resource Management.

**Reintegrate the HDP Nexus:** Deliberately reintegrate humanitarian, development, and peace-building objectives in specific geographic localities and within the overall approach to research, policy, and advocacy. Emphasize playing a direct role in peacebuilding through water.

**Secure WE Financial Autonomy:** Advocate for tariff reforms that enable financial independence. Explore transitional funding mechanisms and assist WEs in improving billing and collection systems. Collaborate with partners to demonstrate, through pilot projects, how this can be achieved.

**Strengthen Local Governance:** Support the transition to full WE ownership and mandate, clarifying the relationship with municipalities to ensure they are partners, not competitors, in service delivery. Develop exit strategies that center WE graduation towards independent service provision.