



## **Evaluation Report of UNDA Project**

# **UP-SCALING ENERGY EFFICIENCY IN THE RESIDENTIAL AND SERVICES SECTORS IN THE ARAB REGION**

Target Countries: Jordan & Tunisia

Project Duration: June 2018 – December 2021

*Prepared by*

Nahed Freij

Advance Consulting Services

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## List of Abbreviations

ANME	Tunisian Agency for Energy Conservation
DA	Development Account
EA	Expected Accomplishment
EGM	Expert Group Meeting
EQ	Evaluations Questions
ESCWA	The United Nations Economic and Social Commission for West Asia
FGD	Focus Group Discussions
IA	Indicators of Achievement
IDECO	Irbid District Electricity Company
INDC	Intended Nationally Determined Contributions
JEA	Jordan Engineers Association
JREEEF	Jordan Renewable Energy and Energy Efficiency Fund
JSMO	Jordan Standards and Metrology Organization
LAS	League of Arab States
MEMR	Ministry of Energy and Mineral Resources
MEPS	Minimum Energy Performance Standards
MS	Member State
NEEAP	National Energy Efficiency Action Plans
NERC	National Energy Research Centre
NTF	National Task Force
OECD-DAC	The Organisation for Economic Co-operation and Development/ Development Assistance Committee
OLT	Organizational Learning Team
REEE	European Union Technical Assistance to the Renewable Energy & Energy Efficiency Programmes in Jordan
SDG	Sustainable Development Goals
RSS	Royal Scientific Society
SSI	Semi Structured Interviews
STEG	The Tunisian Company of Electricity and Gas
TA	Technical Assistance
TOC	Theory of Change
UNEG	United Nations Evaluation Group

## 1. Executive Summary

Up-Scaling Energy Efficiency in the Residential and Services Sectors in the Arab Region is a four-year Development Account project that was implemented by ESCWA from June 2018 to December 2021. The project was implemented in Jordan and Tunisia. It aimed to ‘substantially enhance the capacity of ESCWA member States in improving and optimizing energy efficiency in the building sector and up-scaling energy efficiency programs in the existing residential and non-residential building stock’.

An end of project external evaluation was carried out between December 2021 and April 2022. to provide objective, evidence-based assessment of the project against four OECD-DAC evaluation criteria namely, Relevance, Effectiveness, Efficiency and Sustainability. Development best practices regarding promoting gender equality and a human rights-based approach, including the rights of with persons with disabilities were employed to the extent possible throughout the evaluation.

A hybrid evaluation design drawing on a combination of reflexive and theory-based approaches was utilised in undertaking the evaluation. A qualitative participatory approach was applied comprising of mix of tools including desk review, individual and collective interviews and observation of the final closing workshop of the project. A total of 32 participants helped inform this evaluation through twenty SSIs and three collective group discussions.

### Main conclusions

1. The project is highly relevant and in line with ESCWA’s mandate, country and regional development needs, and SDGs. The project-maintained relevance and response to target countries’ needs thanks to its flexible design that helped inform interventions in each country. Project plausibility and logic are sufficiently established, but it’s work on the policy front would have benefitted from further targeted actions and could be plausible if viewed within ESCWA’s wider programme of work on energy and climate change.
2. Despite unprecedented challenges caused by the outbreak of COVID-19 and other challenges at country-level, the project realized almost all its target indicators, outputs and EAs thereby achieving its overall objective to enhance the capacity of target countries to improve and optimise EE in the building sector and up-scale EE programs in the existing residential and non-residential building stock.
3. The project made highly efficient utilization of its resources and positioned itself in a complimentary and value addition capacity in both countries. The arrangement with the hired consultants proved an innovative mean of delivering the project and it became even more relevant during difficult conditions to drive project implementation.
4. The project helped build greater and new capacities, awareness and ownership amongst MS in promoting EE in the existing building stock and the specific areas of work it focussed on. Work on the policy aspect could not (have) materialized amidst the Pandemic. Nevertheless, it helped establish a roadmap for countries future actions while also enabling customized work and produced outputs and knowledge products that will continue to act as reference for MS and other supporting actors.
5. Issues of gender, human rights and disability were incorporated in the project design, implementation, and monitoring to an adequate extent, but room for improvement in terms of their integration more systematically remains.

## **Main Recommendations**

1. Consolidate and disseminate project experience within ESCWA and member States including through LAS and other inter-ministerial meetings as a resource knowledge and to promote political to support EE measures in the sector and the region.
2. Build on the work performed with the two target countries through;
  - a. Catalyzing a regional network of EE practitioners including those engaged from participating member States to network, exchange, promote collective learning and co-creation amongst MS on EE measures.
  - b. Support Jordan especially in following up through manual of procedures, quality control for the developed implementation schemes.
  - c. Support Tunisia and Jordan in their resource mobilization efforts to implement project outputs such as the survey.
  - d. Follow up and document the learning from the countries on their implementation and financial schemes.
  - e. Consider follow up actions to addressing policy gaps and supporting country-level coordination and sector governance needs.
3. Consolidate learning on energy sector governance for future programming. Consider for example exchanging Tunisia's experience in the regulatory framework and governance with Jordan as the project made important inroads/ ground to recognizing the need for an enabling governance.
4. Consider promotion of operational efficiency within ESCWA more systematically especially when interventions target similar stakeholder institutions to better anchor and institutionalize the capacity building work.
5. Apply a systematic approach to integration of gender, human rights, and disability mainstreaming especially during the implementation of the project. Consider providing technical backstopping and support to consultants/experts when needed and integrating these issues in the scope of work/ mandate of national task forces.
6. Consider a regional programming that promotes enforcement of buildings codes in EE (Tunisia and Jordan are both challenged in enforcement) to help reduce needed investments in the existing buildings stock.

## 2. Introduction

### 2.1 Background

Rapidly expanding populations, increasing rates of urbanization, economic and industrial expansion, and rising standards of living associated with aspirations for greater comfort, exacerbated by low energy prices due to widespread energy subsidies at the end-user levels, have largely contributed to a rapidly rising demand for energy in the Arab region. Analysis of energy consumption patterns in the region shows that the residential and services sectors represent an important part of the total consumption of energy with a share of at least one third of all the total primary energy consumed, and over 60 percent of the electrical energy consumption, of which the domestic sector represents about 70 percent. Forecasts indicate that electricity demand is set to rise drastically soon. A World Bank study estimated the potential for energy savings from energy efficiency (EE) at 21 percent of projected total primary energy supply in Middle East and North African countries by 2025. Over 30 percent of these savings, or 100 of 300 million tons of oil equivalent (Mtoe), are from **greater efficiency in the residential and services sectors**.

### 2.2 Project Overview

Up-Scaling Energy Efficiency in the Residential and Services Sectors in the Arab Region is a four-year Development Account (DA) project that was implemented by ESCWA from June 2018 to December 2021. The project objective was to 'substantially enhance the capacity of ESCWA member States in improving and optimizing EE in the building sector and up-scaling EE programs in the existing residential and non-residential building stock'. The Project sought to realise this objective by achieving the following **two main outcomes** and their respective outputs and activities.

**Outcome (OC) 1:** Enhanced capacity of government/ national institutions of the three selected ESCWA member States to optimize energy consumption patterns in the existing residential and services sectors' building stocks in their countries.

#### **Main Activities:**

- **OP1.1** Conduct a Baseline Mapping Study in each of the three selected countries including identification of stakeholders, current status of residential and services sectors energy consumption, existing programmes, policies and strategies etc.
- **OP1.2** Provide technical assistance to relevant national institution(s) in each of the three selected countries in developing, short, medium, and long-term strategies and appropriate EE policies for the existing building stock in the residential and services sectors
- **OP1.3** Produce guidelines and trainings material to establish long-lasting and systematic schemes to improve the state of knowledge of energy consumption patterns in the residential and services sectors.
- **OP1.4** Set up specialized task forces (STF) at national levels in each of the three selected countries.
- **OP1.5** Provide technical assistance to at least two of the participating countries to ensure enacting or reinforcing of existing household and other equipment energy labelling systems and MEPS.

**Outcome (OC) 2:** New opportunities for building stock owners, and end users, in the three selected ESCWA member States to access large-scale dissemination schemes for improving the thermal quality of their buildings and for using more energy efficient equipment and appliances.

- **OP2.1** Initiate the design and development of one effective large-scale implementation scheme, based on innovative financial instruments, in at least two participating countries for improving the thermal quality of large segments of the existing building stock, involving private and public resources.
- **OP2.2** Initiate the design and development of at least one effective large-scale implementation scheme based on innovative financial instruments in at least two participating countries for dissemination of higher EE equipment and appliances and involving private and public resources.
- **OP2.3** Organize an end-of-project workshop to bring together officials from the region along with major domestic and foreign financial institutions.

The project intended to pave the way for a regional initiative whereby implemented activities made available to pilot ESCWA Member Countries that are representative of the three Arab sub regions. Tunisia, Jordan, and Kuwait were proposed to be the focus of the project. Due to issues encountered during the project implementation, only **Tunisia and Jordan** were the focus of project. The UN DA project had however aimed for realization of target indicators in **at least two countries**.

### Evaluation Purpose and Scope

**Purpose:** This end-of-cycle evaluation was carried out in line with the UNEG evaluation guidelines, and the DA evaluation guidelines. Through systematic and objective assessment of the project's design, implementation, outputs, and outcomes, the evaluation serves two main objectives:

1. **Learning** – By contributing to lessons learned on the implementation and results of the project, as well as developing the existing knowledge base; and
2. **Improving evidence for decision making** – By providing credible and reliable evidence to ESCWA and project partners to facilitate decision-making to improve developmental outcomes.

**Scope:** This **forward-looking evaluation** covers the project's duration from June 2018 to December 2021. It aims to provide objective, evidence-based assessment as to whether the project achieved its objective and Expected Accomplishments (EA) in accordance with the project's original Indicators of Achievement (IA). The evaluation scope seeks to answer Evaluations Questions (EQ) against four **OECD-DAC evaluation criteria** namely, Relevance, Effectiveness, Efficiency and Sustainability (Annex 1- Evaluation TOR). Also, the evaluation strived to employ development best practices regarding promoting **gender equality** and a **human rights-based approach**, including the rights of with **persons with disabilities**.

## 3. Evaluation Methodology

**Evaluation design and approach:** In accordance with the purpose and objectives of the evaluation, a hybrid evaluation drawing on a combination of reflexive design and theory-based approaches was utilised. A participatory, qualitative methodological approach that takes into account human **rights, disability inclusion and gender considerations** was maintained throughout the planning, design, and execution of the evaluation.

The sampling parameters and criteria aimed to ensure proper representation. The evaluation used **Multistage Cluster Sampling**: starting strata by selecting actors according to their **role in** relation to the project (project staff, expert/ consultant, beneficiary-governmental or nongovernmental); then **location/** country and their involvement in the project per scope of project activities and received services. Subsequently, **gender consideration** (Male: Female) was also considered. All rights and confidentiality of information providers were prioritized and safeguarded as per UNEG ‘Ethical Guidelines for Evaluation’.

The evaluation was undertaken in three-stages: the inception phase encompassed review of the project documents and design of the evaluation. It culminated in an inception report that was reviewed and approved by ESCWA. This was followed by data collection stage, then synthesis and report drafting. The following are the data collection tools which were applied in the evaluation:

- **Desk review/ analysis of secondary documents:** These include documents related to the project including planning, reporting, project outputs/ activities and publications. Documents that were consulted include the project document, annual progress reports and project outputs as listed in Annex 2.
- **Semi Structured Interviews (SSIs) and Focus Group Discussions (FGDs):** The consultation strategy incorporated the key principles of inclusion, participation, and fair power relations. Perspectives of all project stakeholders, both direct and indirect, were taken into consideration in the sampling and analysis. Individual and collective interviews served as the primary source of data to complement missing information and validate preliminary findings from the literature review. FGDs also aimed to engage with the national taskforces and to accommodate wider participation of stakeholders on different aspects of the evaluation questions and followed a similar line of questioning to the semi-structured interviews. A total of **32** participants helped inform this evaluation through **twenty SSIs** and **three collective interviews/FGDs**.
- **Observation:** The evaluator virtually attended and observed the online closing workshop of the project which was held in December 2021. The workshop presented a valuable opportunity to hear perspectives of stakeholders who were not all sampled/ reached in the evaluation. It also served as a good opportunity to learn of the project’s progress and achievements.

Completion of the field phase was followed by data analysis whereby the evaluation utilised analytical and empirical methods. **Triangulation** was maintained through cross verification from different sources/ stakeholders to arrive at findings and conclusions that answer all the questions and issues stipulated in the TOR. A draft evaluation report was shared with ESCWA’s Organizational Learning Team (OLT) and the project team to validate findings, provide explanations and clarifications, and receive comments that were considered in finalizing the task.

Table 1: Profile of consulted stakeholders						
Stakeholder/ Role in the Project	Scope/ Involvement			Number of Informants		Method
	Project-wide	Tunisia	Jordan	Male	Female	
ESCWA	Energy Section/ Climate Change and Natural			1	2	SSI (3)



	Resource Sustainability Cluster					
Main Institutional Partners/ Country Focal Points		Tunisian Agency for Energy Conservation (ANME)-2M	Ministry of Energy and Mineral Resources (MEMR)-1M	3	0	SSI (3)
Stakeholders engaged in project activities & Technical Assistance (TA)		<i>The Tunisian Company of Electricity and Gas (STEG) -4F, 4M</i> <i>Centre Technique des Industries Mécaniques et Electriques (CETIME)- 1 M</i> <i>Local Operator (1M)</i>	MEMR -1F,1M <i>Jordan Standards and Metrology Organization (JSMO) -1M</i> Department of Statistics (DOS) - 1M, IF Jordan Renewable Energy & Energy Efficiency Fund (JREEEF)- 1F	8	7	SSIs (7) FGD (1)
(Other) National Task Force Members (OP.1.4)		<i>The Ministry of public works and housing (Directorate of Housing and Directorate of public buildings) (1F)</i> <i>The Council of the Order of Architects(1F)</i>	<i>The Ministry of public works and housing, the Royal Scientific Society (RSS) / National Energy Research Centre (NERC), 1M</i> <i>Irbid District Electricity Company (IDECO) 1F</i>	1	3	FGDs (2)
Experts/ Consultants	<i>2 International consultants</i>	3 local consultants	2 local consultants	5	2	SSIs (7)
<b>Total</b>				<b>18</b>	<b>14</b>	<b>SSIs: 20 FGDs:3</b>

**Limitations and Considerations:** The evaluation did not encounter any major limitations. Financial and time resources influenced the evaluation's reliance on qualitative approach, but the evaluation methodology used a combination of data collection tools to mitigate limitations that could arise in case of using one of the tools in isolation.

Changes in the context and namely the outbreak of coronavirus disease (COVID-19) pandemic had impacted the smooth running of the project. The evaluation considered the extent to which such developments affected the project's implementation and realization of project objectives- as required in the TOR- and referred to it in the report when relevant.

The field phase was conducted remotely due to the COVID-19 pandemic-imposed travel and movement restrictions. The response rate to requests for interviews was overall sufficient to ensure objective findings across both EAs and all counterpart focal institutions were successfully

reached. The nature of the observed webinar/ workshop also enabled the evaluator to capture supporting input drawing on views from the wider group/ workshop participants.

**Quality Assurance:** The evaluation adhered to the systematic application of evaluation principles during the evaluation process and in the delivered products. Principles of independence, credibility, utility, and quality are interrelated and underpin the evaluation objectives of:

- Accountability in that they provide the framework to ensure independent, credible, high-quality, and useful evaluation of results, whether they are successes or shortfalls.
- Learning in so far that it requires independent, credible, high-quality, and useful evaluation to generate essential lessons that will help improve performance and outcomes.

The below internal quality assurance mechanism was applied in this evaluation ensuring completeness of all elements requested in the TOR, logical presentation, objectivity, justification, and user-friendliness of the report.

### Quality Checkpoint Control Process

**Completeness:** Checklist of all elements requested in the TOR, compared with elements included in the deliverables. This is necessary to ensure that all aspects requested in the TOR have been duly incorporated.

**Logical presentation:** Deliverables/reports follow a logical presentation: Objectives are described. The used methodology is described, and evaluation criteria well understood. Judgement criteria/indicators used are well described; findings are related to the objectives; findings derive from the analysis of the indicators/ non-bias data.

**Objectivity:** Conclusions derive objectively from the findings; lessons learnt & the recommendations derive directly from the conclusions.

**Justification:** The judgment assertions are duly justified based on objective judgement criteria/ and/or information.

**User-friendliness:** Review of the report's reader-friendliness. The main report presents the essential elements of the study, while details are put in annexes; out-of-context sentences are avoided; excessive abbreviations and jargon are avoided; and unusual terms included in the report are explained in footnotes.

## 4. Findings

Based on the primary and secondary data collection and analysis, the evaluator has reached the following findings that were explored, triangulated, and validated. The below evaluation findings are presented under each evaluation criteria and clustered around the evaluation questions. There has been no evidence of any differences in opinions and views among female and male respondents.

## 4.1 Relevance

### Evaluation Questions

- Were the objectives and expected accomplishments of the project clearly aligned with the strategic needs and priorities of member States, the sustainable development goals (SDG), and regional development agendas?
- Were the activities and outputs of the project clearly aligned with the strategic needs and priorities of member States?
- Do the objectives and expected accomplishments of the project align with ESCWA's mandate?
- Did the design of the activities and outputs ensure that they contributed to achieving the expected accomplishments and objective of the project?
- Did the achievement of the planned results address the identified needs of member States?
- If the results were different than the ones planned, did they still contribute to addressing the identified needs?

### Main Findings:

1. The project fits well with ESCWA's mandate. Project objectives and EAs concerning optimizing energy consumption patterns in the existing residential and services sectors' building stocks align with the strategic needs of MS, SDGs, and regional development agendas.
2. The DA project would have benefited from a clearly defined Theory of Change (TOC) that explains project logic, links its interventions and intended changes, and supports monitoring of its underlying assumptions and risks to make timely correction actions to achieving higher level results.
3. Project activities and outputs contributed to the achievement of EAs and objective, however higher-level results on the policy front lacked sufficient targeted action and were further challenged by the outbreak of Covid-19.
4. The project design allowed needed flexibility which helped contextualise and attend to particularities and needs in each target county.

**Alignment with SDGs, regional development agendas and ESCWA's mandate:** The project objectives and EAs align with SDG 7<sup>1</sup> concerning access to energy of the 2030 agenda. It is in line with target 7.3; "By 2030, double the global rate of improvement in EE" and target 7.1 "By 2030, ensure universal access to affordable, reliable and modern energy services" since upscaling EE in the building sector would free up energy resources that can be used to extend energy services to other potential end users. Also, the project is in line with Paris Agreement on Climate Change and the work of the recently established ESCWA's Arab Center for Climate Change Policy. The project also contributes to climate change mitigation efforts in the region in support of Goal 13<sup>2</sup>, Target 13.2; "Integrating climate change measures into national policies, strategies and planning", and Target 13.3; "Improve education, awareness-raising, and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning".

The project fits broadly within ESCWA's mandate in its work on promoting economic social and development, *strengthen cooperation between its member States and address regional*

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<sup>1</sup> SDG 7 "Ensure access to affordable, reliable, sustainable and modern energy for all"

<sup>2</sup> Goal 13 calls for "taking urgent action to combat climate change and its impacts"

*development challenges*. At the time of its design, the project objective aligned with the ESCWA Sub-programme 1<sup>3</sup> and its EAs:

- EA(a) Increased alignment of member States' national plans with the Sustainable Development Goals through drawing upon the water-energy-food nexus
- EA(c) Strengthened resilience of member States to climate change and natural disasters and of vulnerable communities.

The nature of project outputs is also in line with ESCWA normative work (research and analytical expertise as evident in the mapping studies and TA provisioned to key stakeholders such as the National Energy Conservation Agency (ANME) and the National Electricity and Gas company (STEG) in Tunisia and to the Ministry of Energy and Mineral Resources (MEMR) and the Department of Statistics (DoS) in Jordan). The project's knowledge sharing activities and plan for scaling at a regional level also align with ESCWA's convening power and advocacy capabilities to promote debate, develop consensus and help achieve economic and social development for the people of the Arab region.

### **Responsiveness to member States' needs and priorities**

#### **The project was designed in response to member States' request for support from ESCWA.**

As evidenced in the project document, in its 10th Session, Member States (MS) recommended ESCWA's Committee on Energy "to conduct specific activities and events for building the capacity of MS in the implementation of the SE4-All objectives within their national programs and policies, and addressing related topics that are of interest, such as the rationalization of energy subsidies, promoting EE and renewable energy" and requested more details about the project concept that was also presented during the session. Also in its 11th session, member States again requested ESCWA to assist them in setting up national programs to improve the sustainability of their energy systems and help them meet the energy related SDGs.

The project comes **in response to participant member countries' interest in receiving ESCWA** support following Expert Group Meeting (EGM) "Promoting Large –Scale Energy Efficiency Programs in The Existing Building Sector in The Arab Region" (organized on 12-13 May 2015). The EGM highlighted the potential for implementation of large-scale EE programs in the existing building sector and during the EGM, target countries' representatives expressed their support and interest in the kind of activities that would be initiated in this UNDA project.

Despite **the broadly formulated objectives**, the project **aligns with strategic priorities of Jordan and Tunisia** as expressed national EE action plans (NEEAP) commitments<sup>4</sup> national Energy Sector plans and Intended Nationally Determined Contributions (INDCs). Energy efficiency is an emerging priority in Jordan and while its Energy Strategy 2030 encompasses priorities pertaining to EE, renewable energy, and energy management, Jordan's EE objective targets all sectors, including residential and services and remains general regarding the building sector lacking specific indicators or measures<sup>5</sup>. Nevertheless, the project and its outputs align

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<sup>3</sup> Integrated Management of Natural Resources for Sustainable Development

<sup>4</sup> (NEEAP) commitments are formulated in response to the League of Arab States "Arab Guideline for Improving Electricity Efficiency and Rationalize its Consumption at the End User" approved during the twenty sixth meeting of the executive bureau of the Arab Ministerial Council for Electricity on 23/11/2010 (resolution number 195)

<sup>5</sup> Jordan's INDC states that one of the axis of its mitigation actions would be "*Rationalizing energy consumption in all sectors and improving their efficiency and raising awareness about the long-term financial benefits of EE: Improving the collection of data on energy use patterns and identifying the most useful data on the efficiency of energy use for*

with Jordan's Master Strategy for Energy Sector<sup>6</sup> strategic priority regarding promoting energy conservation and EE and awareness as well as its respective Energy Sector Sectoral Actions<sup>7</sup>. More particularly, the mapping study that was produced by the project serves as a strong benchmark on the building sector and the studied subsectors. Consulted stakeholders in Jordan consider the study vital to help more effective policy especially considering the country's weak generation and availability of energy-data which is also emphasized in the Energy Sector Strategy. Therefore, the mapping as well as the TA interventions with JREEEF and the consumer survey methodology that was developed through the UNDA project are strongly in line with the country's priorities and needs.

**Tunisia** has a proactive mitigation scenario that incorporates ambitious programmes for developing EE and renewable energies. Tunisia's INDC<sup>8</sup> aims **to intensify the promotion of EE in all consumer sectors and for all energy usages** (target to decrease demand for energy by 30 percent from baseline by 2030); increasing the use of renewable energies and triple the solar water heater distribution rate. Tunisia's Buildings Strategy and regulatory framework applies only to the public sector and hence stakeholders strongly validated the relevance of the project and its outputs such as the mapping in focusing on other vital building sectors. The country is also challenged in implementation/ enforcement of the law beyond the public sector, which the mapping sheds light on and helps inform policy gaps.

In both countries, **stakeholders confirmed** the relevance of the project and its interventions that they helped identify. They noted that existing energy subsidies, products prices, and consumer awareness and behaviours do not create **incentives to end users to choose more energy efficient solutions or equipment** and hence the need to create incentives for their change and help reduce and make more efficient utilization of national expenditures. Stakeholders at responsible institutions regulating and overseeing these schemes, ANME, MEMR/JREEEF confirmed their countries/institutions need for support to help build their capacities in developing implementation and financial mechanisms in the building sector as these institutions HR are mostly engineers lacking economic expertise and financial resources.

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policy makers; providing appropriate financial incentives for EE projects; and providing funding to allow schools, hospitals and other facilities assessing the potential of saving energy, and making energy-related capital improvements in their facilities. (Jordan's INDC, <http://www4.unfccc.int/submissions/INDC> )". According to its latest National Energy Efficiency Action Plan (NEEAP), Jordan targets a reduction of final energy consumption of 10% by 2020 and 20% in 2030, with respect to the Reference scenario. Furthermore, Jordan has a National Energy Strategy including targeted programmes and measures for energy use rationalisation in all economic sectors and has promulgated the Renewable Energy and Energy Efficiency Law (REEEL) as a legal framework for this strategy, and set up The Jordan Renewable Energy and Energy Efficiency Fund (JREEEF) to support the financing of these efforts.

<sup>6</sup> Fehler (unfccc.int) . Accessed on March 22,2022

<sup>7</sup> Actions namely include; **Rationalizing energy consumption in all sectors and improving their efficiency and raising awareness about the long-term financial benefits of EE; Improving the collection of data on energy use patterns** and identifying the most useful data on the efficiency of energy use for policy makers; **providing appropriate financial incentives for EE projects**<sup>7</sup>; Encouraging the use of solar energy for water heating through the provision of short-term support for the purchase of solar water heaters; Requiring the implementation of green building codes by setting clear standards for construction, materials and land based on best practices. Action plans also include to **advise public people including professionals in how to save energy in all aspects, attracting private sector investment to the energy sector and reducing administrative obstacles in order to take advantage of the JREEEF to support investment in early stage**

<sup>8</sup> [CIRCONSTANCES NATIONALES ET DISPOSITIFS INSTITUTIONNELS \(unfccc.int\)](https://unfccc.int) accessed on March 22, 2022

**The strong and continued relevance of the project interventions has been largely due to the project's adopted approach** which also helped ensure feasibility of project interventions and activities in both countries (**good practice**). The adopted approach is characterized by:

- 1) **Regionally responsive and country- specific informed design-** whereby the mapping helped understand country context and stakeholders and design implementation schemes that are relevant to each country.
- 2) The **consultative approach** through the formation of the National Task Forces (NTF). NTFs played a major factor to ensure responsiveness to countries and institutions' needs and identification of arising needs.
- 3) **Flexibility in addressing gaps that were identified during implementation.** By keeping its outputs broad, the project allowed countries the opportunity to address unstated/newly discovered gaps that were identified during the project implementation. A prime example was the developed survey methodology to monitor energy consumption patterns in the residential sector that was developed during the project (unplanned additional support). MEMR strongly values the survey to help inform national policies in this field as further explained in the Effectiveness section.

### **Project design and Intervention Logic**

The project did not articulate a theory of change (TOC) that establishes a plausible linkage between interventions and intended changes, accounts for other contributory factors, and captures unintended effects. The evaluation constructed the project's TOC to explain the project's Impact pathway and how project objective was expected to be achieved<sup>9</sup>. The below TOC is based on the project document including project log frame, activities description and Risk Matrix (R).

#### ***Project (implicit) Theory of Change***

**IF**, ESCWA/ project interventions:

- Produce appropriate knowledge products via guidelines, training materials and tools in support of improving energy performance in the existing building sector-including establish long-lasting and systematic schemes to improve the state of knowledge of energy consumption patterns in the residential and services sectors- in target MS (A1.1, A1.3).
- Provide technical assistance to participating countries to ensure enacting or reinforcing of existing household and other equipment energy labelling systems and MEPS (A1.5).
- Provide technical assistance to member States to develop new opportunities for building stock owners, and end users, to access immediate, simple and proven large-scale EE actions/ dissemination schemes for improving the thermal quality of their buildings and for using more energy efficient equipment and appliances (A2.1, A,2.2).
- Provide platform for exchange of EE know-how between MS (A.1.5).

**THEN**, the capacity of target ESCWA member States in improving, optimizing EE in the building sector and up-scaling EE programs in the existing residential and non-residential building stock will be substantially enhanced.

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<sup>9</sup> The evaluation reconstructed the project logic and impact pathway for this evaluation based on the project log frame, activities description and Risk Matrix in the project document

**THEN** national institutions and respective stakeholders of target MCs will be able to recognise and define policy related priorities for optimizing and upscaling EE in the building sector and upscaling EE programs in the existing residential and non-residential building stock.

**AND THEN** MS would request and/or welcome ESCWA's policy shaping efforts to help them develop strategies and policies for the existing building stock in the residential and services sectors that will be endorsed by decision makers (A 1.2).

**And this will CONTRIBUTE** to member states adopting policies and programmes that 1) strengthen their energy situation (Energy productivity and efficiency and decreased vulnerability to international energy price fluctuations) 2) benefit national budgets and efficient use of revenues for development efforts, 3) benefit end use consumers and help alleviating "energy poverty" and 4) benefit the environment.

**BECAUSE enhanced** capacities and policies in the existing building stock will accelerate the pace of implementing EE measures in the sector and upscale their reach in beneficiary member states.

*(Conditions being: 1) empowered (by mandate and scope) and committed national institutions (Risk 1, R2, R3) institutional framework and governance enables coordination and policy making process, R3) no serious changes in the political situation leading to important disturbances in the functioning of its national institutions (R4).*

The **project design allows needed flexibility which helped contextualise and attend to particularities in each target county.** Specific actions in each country were based on the Mapping results although there is no evidence that the project developed Country-specific workplans after completing the mapping exercise<sup>10</sup>. However, as demonstrated in the TOC, **policy change is a higher-level result than** increased capacities as currently the case in project log frame-under EA1. As such, project plausibility can be established when viewed within the overall programme of work i.e., DA projects being tied to and contribute to regular budget work and results especially in the policy sphere (through advocacy, inter-ministerial processes and consensus building that are unaccounted for in this project).

Excluding the policy shaping work, **the achieved results were not notably different than the ones planned and still contribute to the project objective** in terms of building MS capacities while also addressing the needs that were identified together with members the national task forces. **Several factors affected the work and achieved results on the policy front (IA 1.2** see Effectiveness section) due to time constraints caused by delays in implementation amidst a period of Pandemic Outbreak; limited targeted engagement with the countries regarding their EE policies; and complex institutional framework and governance set up (especially Jordan)- **Lesson Learnt.**

## Effectiveness

### Evaluation Questions

- Did the project substantially enhance the capacity of target countries to improve and optimise EE in the building sector and up-scale EE programs in the existing residential and non-residential building stock?

<sup>10</sup> Project Document, Page 23 "Country-specific workplans will be developed after completing the mapping exercises to be carried out in the context of the UN DA. The associated budget (ref. to Table A1 in Annexe) will eventually be adjusted to accommodate the finalized workplans. These revisions will be shared with the Development Account Team as part of the first progress report for the project, due at the end of January 2019"



- What were the major factors that influenced the achievement of the project's objective, and what adjustments were made throughout the project's implementation to account for these factors?
- Was the project implemented according to plan? If not, was timely corrective action taken where necessary?
- Was additional support identified or provided to overcome implementation challenges?
- What adjustments, if any, were made to the project as a direct consequence of the COVID-19 situation, and to what extent did the adjustments allow the project to effectively respond to the new priorities of member States that emerged in relation to COVID-19?
- How did the adjustments, if any, affect the achievement of the project's expected results as stated in its original results framework?
- Has the project made use of innovative means of delivery? How did this influence the achievement of results?

### Main Findings:

1. The project realized almost all its target indicators, outputs and EAs thereby achieving its overall objective to enhance the capacity of target countries to improve and optimise EE in the building sector and up-scale EE programs in the existing residential and non-residential building stock.
2. The project faced several challenges but measures to reduce their effect on realization of its objective are found overall sufficient and appropriate driven by the project governance and management as well as its implementation modality that leverages NTF members and local consultants over the course of its implementation.
3. Variance in countries' sector governance influenced the type and scale of project interventions such as supporting MEPS and the implementation schemes.
4. MS highly value the project interventions and support. They remain keen for continued cooperation with ESCWA to support their planning for EE in the existing building stock.
5. The project applied innovation in its work through focussing its resources on high-leverage points, developing innovative tools customised for country-specific contexts. Innovation in delivering the project through the work modality with the consultants and focal points that served as project staff in the country.

In assessing project effectiveness in realisation of its objective, reference is made to the extent the project realised its intended outcomes/ EA and outputs as set in its logical framework and review of the project progress against its TOC. Facilitating and hindering factors that influenced project effectiveness are also discussed in this section.

- **OC1: Enhanced capacity** of government/ national institutions of the three selected ESCWA member States **to optimize energy consumption patterns in the existing residential and services sectors' building stocks** in their countries.

Review of the project outputs and interviews with stakeholders reveal that **the project has progressively achieved most OC 1 targets indicating enhanced institutions' capacities** to optimize energy consumption patterns in the existing residential and service sector's building stocks in both countries.

Referencing 2017 as the base year, the mapping reports (IA 1.1) provide a comprehensive account of energy use and performance in the sector and its subsectors as well as the regulatory framework and gaps in financing or regulations. Achievement of this first indicator was **fundamental to ensuring continued project relevance** through customisation of project interventions based on the findings of the study as well as reception of the project and its interventions amongst concerned stakeholders and institutions. Stakeholders also **value the**



**reports for enabling their commitments to SDGS and COP 25** by serving as basis for identifying the targets of the EE measures and programmes in the sector and for helping inform potential policy incentives for users to improve their energy consumption. In Tunisia for example, stakeholders appreciate the studied subsectors and findings that reveal opportunities for EE such as the commercial consumption/ commercial retailers who are large in numbers and the recommendations to policy making and STEG to zoom on small businesses. Also, the reports are commended for **helping initiate the monitoring process and the weight of the building sector in the country's energy balance and energy bill** by ANME and MEMR.

*“For the first time Tunisia has a comprehensive baseline study of the building sector and subsectors according to type and consumption which is useful for upcoming planning 2030-2050 and the national strategy on buildings” ANME representative*

The second target indicator (IA 1.2- outlining policy reinforcement needs for each country) was approached through capacity building workshops/ training on methodologies and instruments for developing, implementing, and evaluating EE policies in the buildings sector (Tunis, 25 April 2019 and in Jordan on July 22, 2019). Building on the findings from the mapping, the workshops served countries' relevant institutions explore and define needed instruments and tools to set up effective large-scale implementation schemes for improving the existing buildings thermal quality and for dissemination of higher EE appliances and products which were later initiated under indicator IA3. Moreover, the project produced two guideline' brochures on applied good practices in EE in the building envelop, on household appliances: on EE and Low Carbon/Energy Buildings and EE of equipment in buildings. The produced material target professionals and the public. Stakeholders find them useful and informative though plans for dissemination of these are not clear. Compared to the produced brochures, stakeholders voiced recommendations for **more user-friendly and innovative material in targeting the public**, such as through infographics and use of social media, amongst others.

There is insufficient evidence that policy reinforcement needs were clearly defined for each country (for the project or beyond). **Project interventions under this indicator were technical in nature**. Some stakeholders also view that policy dialogue could have been further leveraged had the project been implemented under 'usual' circumstances and would have then followed the project logic outlined in the TOC which would have also required more targeted actions, negotiations, and exchange with national stakeholders. Certain delays in completing the mapping reports, followed by the outbreak of the pandemic and project delivery via online methods **affected conducive multistakeholder policy influencing platforms for project's intervention on policy level**.

On a more positive note, the project provided an unplanned TA to developing a survey **methodology for monitoring energy consumption patterns** in the residential sector and the services low-voltage segment of end users. This survey, once implemented, will be Jordan's first of its kind and **would comprise a fundamental input to Jordan's policymaking needs in the longer run**. This is because Jordan's monitoring used to focus on the residential sector as a whole but not within households. The results of the survey will help the country define evidenced based, informed and targeted policies to promote energy efficiency consumption patterns and MEPS. In Tunisia, STEG enhanced its exiting methodology for monitoring of energy consumption patterns as well. Tunisia's survey now collects other important variables such source of purchase of appliances which also complements the work in the digital platform. The survey will continue to help Tunisia forecast demand for electrical power and other ANME programmes. Training sessions regarding the different elements of the methodology that were also provided to relevant

participants from the Jordanian and Tunisian institutions are strongly appreciated for supporting the institutionalisation of its monitoring process.

Under indicator (IA. 1.3- endorsement of MEPS Concept) Tunisia benefited from the development of a digitalized platform for energy performance labelling certification of household<sup>11</sup> equipment covering refrigerators, room air conditioners and washing machines. **The digital platform is unanimously appreciated amongst Tunisian stakeholders** including governmental, accreditation institutions, importers, and local producers for its value in streamlining the certification process and more innovatively empowering consumers in market regulation through providing them with a tool to verify the accuracy and authenticity of the labels on equipment. The platform also provides access to useful information on EE and serves concerned relevant stakeholders such as ANME, CITEME and others to streamline and improve the efficiency of the labelling certification process beyond the project period and the three piloted products.

In Jordan, the project supported development of material for a **media campaign on reinforcing the energy performance labelling system**<sup>12</sup>. Understanding the complexity of **Jordan's** institutional framework and coordination structure (i.e., Governance of the energy sector and interventions of other actors such as the World Bank in MEPS related work<sup>13</sup>) and while the intervention serves endorsement of MEPS in the country, **the evaluation questions ESCWA's value addition in this type of support i.e., helping design media campaign collateral**. Jordan does not have its local energy performance labelling system and rather adopts one of the European MEPS standards. The evaluation found anecdotal evidence of some stakeholders/ national institutions stating their increased recognition for the need for a more relevant performance labelling scheme (due to difference in climatic zones and consumption behaviors and patterns) which also indicates increased recognition of the importance of the MEPS to some extent.

- OC2: New opportunities for building stock owners, and end users, in the three selected ESCWA member States to access large-scale dissemination schemes for improving the thermal quality of their buildings and for using more energy efficient equipment and appliances.

Indicator IA 2.1 (implementation scheme for improving thermal quality of existing building stock) was achieved in both countries. The project supported Tunisia to develop a financial and organizational mechanism for the implementation of a nation-wide program targeting households to install **roof insulation on existing buildings**. The proposed mechanism includes logistical and financing instruments to cover several thousand households by the program. In Jordan JREEEF is the responsible body for activating codes such as those pertaining to roof insulation but was challenged by lack of data about the market and its maturity and lack capacity in implementation mechanisms that could also be costly especially when targeting poor families. The project supported Jordan developing an implementation scheme<sup>14</sup> based on market analysis and economic assessment of roof insulation of existing residential buildings. The developed

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<sup>11</sup> The platform includes a mobile application that consumers can download to their smartphones, allowing them to scan any labelled product through a QR-Code displayed on the product's energy performance label. The mobile application allows the consumer to verify the accuracy and authenticity of the label and provide access to useful information on EE.

<sup>12</sup> Material included posters and rollups to display at selected household equipment stores, as well as leaflets to be distributed to potential customers

<sup>13</sup> Jordan is currently working with WB on technical regulations for new electronics and a component of the project focusses on MEPS.

<sup>14</sup> Missaoui, Rafik. "Energy efficient financing mechanisms : Roof insulation of existing residential buildings in Jordan" December 2021.

mechanism includes specific financial and organizational mechanisms as well as accompanying measures and implementation roadmap. The mechanism has been developed and is currently pending approval from JREEEF higher management due to JREEEF's time constraints as confirmed during the interview with JREEEF representative.

IA 2.2 (Implementation scheme for more energy efficient equipment and appliances): In **Tunisia**, the project supported ANME to develop a financial and organizational mechanism that includes logistical and financing instruments for the implementation of a nation-wide program targeting households **to replace old refrigerators by new higher efficiency ones**. The scheme is an updated version of a previous scheme, but it could not be implemented due to capacity limitations of the recycling plant which is managed by the Ministry of environment. According to interviews with ANME, the Italian government will help fund 10,000 units. In Jordan, in collaboration with JREEEF, a similar mechanism was developed for disseminating solar water heaters<sup>15</sup>. The financial part of the mechanism offers a 30% subsidy from JREEEF complimented by loans from banking partners or civilian consumer corporations. The developed mechanism also includes operational guidelines though there remains a need for a detailed manual of operations for implementation of the mechanism as noted in the report and confirmed with the consultant.

**While the project has achieved both indicators under OC2, variance in energy sector governance** affected the process and focus of the developed schemes. Tunisia enjoys a more conducive and organized sector governance with higher clarity in terms of role and coordination structures amongst actors than in Jordan. The developed schemes were therefore more mature in terms of ideas and implementation potential. The project effectively supported the needed TA to make these mature schemes more attractive to stakeholders and especially consumers while also presenting a win-win opportunity for all stakeholders (**Lesson Learnt**).

**The project faced several challenges but measures to reduce their effect on realization of its objective are found overall sufficient and appropriate.** Some of these challenges are crosscutting across outcomes and activities such as those arising from COVID-19 which reduced the project rhythm, delivery, and engagement modalities. The project was adequately pivoted to online delivery and bilateral engagement and one on one follow although such conditions are not conducive for trainings or working with governmental counterparts especially policy engagement and influencing work. Moreover, implementation of schemes under OC 2 was complicated by tough political and economic context and **limited remaining time for the project to continue to engage and support their implementation** as these were developed in the project's final months (**lesson learnt**). Almost all interviewed stakeholders believe that tough times are rather ideal for piloting the schemes and ESCWA's support in accompanying their implementation remains highly anticipated in both countries. Other challenges that the project encountered were specific to certain outputs or country contexts such as data constraints for the mapping and a 4-month engineer strike in Tunisia. The project adequately dealt with these through the support of task force members in providing consultants with needed information and facilitating their access to data and stakeholders as well as to consultants' own investing significant efforts in primary data gathering to fill data gaps -such as through surveys with banks and other actors. While the delay in mapping still paid off through the much-lauded quality of the reports, it caused a delay in consequential activities, most notably the remaining time to more effectively engage in policy

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<sup>15</sup> Missaoui, Rafik Financing mechanism for developing Solar water heater market in Jordan December 2021

enforcement that require more targeted dialogues and implementation of schemes that were highly valued and appeared to have created a strong momentum in countries to be piloted during the project period.

The project applied **innovation in its work through identifying and working on leverage points** (by targeting the building as a strategic sector, and appliances consuming most energy such as refrigerators). **Innovative tools** were also produced such as the fridge replacement scheme provides consumers with the needed tools while also protecting registered and certified EE goods suppliers and other actors in the market system. Also the digital platform is considered an innovative solution for combatting parallel market and supporting the much-constrained governmental market enforcement capacity. The development of the consumer survey and its application methodology can also be considered an innovative output as it will not only support governments monitor consumption patterns, but its door-to door application will serve as an awareness campaign to consumers (direct reach). Lastly, the project work with academia universities proved innovative in **convening local partnerships amongst different stakeholders** that may continue beyond the project lifetime and serve governance and coordination needs.

## 4.2 Efficiency

### Evaluation Questions

- Did the implementation of the project make effective use of time and resources to achieve results? Were there other implementation approaches that were likely to have been more economical?
- To what extent and in what ways was the project successful in improving its operational efficiency, i.e., increased usage of integrated planning, monitoring, and reporting tools, efficiency of program management systems and tools, etc?
- Were there synergies or complementary efforts within ESCWA and with partners and other relevant entities that created efficiencies? To what extent was the work of the project duplicative or supportive of the work of other entities?
- Was ESCWA the entity best positioned to conduct the project? If the project had not been initiated, would member States have been able to achieve the results without it?

### Main Findings:

1. The project budget is sufficient for customised project implementation and realization of targets in two countries.
2. Despite the time delay in producing the mapping reports, the project made effective use of available resources to achieve its planned results mainly due to its innovative governance and implementation set up which helped drive operational efficiency.
3. Synergies or complementary efforts with partners and other relevant entities at country level helped capitalise on project resources, avoid duplication, and in support of country level coordination when feasible.
4. Operational efficiency within ESCWA has been limited and could have been further leveraged.
5. ESCWA was well positioned to conduct the project. ESCWA's entity strengths in terms of understanding needs of the region, Know-How, resourcefulness and networking, ability to organise and cooperate on country level were all evidenced and highly appreciated by MS.

The project governance and implementation approach encompassed the designating of institutional focal points at MEMR and ANME, the setup of NTF in each country, and the

arrangement with hired consultants. The institutional focal points helped ensure necessary country-level support for project implementation including access to stakeholders and information, review of outputs and coordinating project activities and in-country consultations. There was some variance between the countries whereby one country's focal point appeared overwhelmed by the number and load of interventions to follow up for this UNDA project alone which required further efforts from the project team and consultants to keep the momentum for the project implementation (**lesson learnt**). The **task force served as a local facilitation team** for the project which also helped promote ownership and increased evolution of the project at country/ Ministers' level.

The project **optimised on designated human resources of its project staff including consultants** that were strongly received by interviewed stakeholders. According to almost all consulted stakeholders, project staff from ESCWA and those hired for the project were **technically and contextually strong** which helped deliver high quality outputs. **The project arrangement with the consultants** also helped drive the project delivery through their accompaniment of the project even beyond the scope of completion of their tasks i.e., participate in meetings, trainings, and workshops with stakeholders, and updating their deliverables. This very good practice **proved effective in localizing the project at country level** (i.e., project consultants and focal points serving as project staff in the country in the absence of ESCWA presence at country level). **The value of such approach was magnified during difficult circumstances** such as the engineer strike in Tunisia that lasted 4 months and Covid-19 which required follow up and implementation at sub-par circumstances. As these developments slowed the project rhythm and caused disruption to the process, project staff and consultants' **resourcefulness and pre-existing relations with institutional stakeholders helped reduce their effect on the project and continue its momentum.**

The project made efficient use of financial resources of which over 80 percent is designated to project activities and implementation. **The budget is sufficient for project implementation and realization of targets in two countries.** Savings realized during implementation due to pivoting project delivery to online for example, were reallocated to serve identified needs to support reinforcing countries' EE measures such as the development of the survey methodology as per interviews with project staff. Nevertheless, stakeholders in Tunisia and Jordan both note that time and efforts needed to mobilise **financial resources for supporting the implementation of developed schemes (including private sector and financial institutions/ mechanisms) would have been valuable** though they still value **ESCWA's continued support** in helping network to mobilize resources for their implementation.

Aside from the project management set up, **synergies or complementary efforts with partners and other relevant entities at country level helped capitalise of its resources, avoid duplication, and in support of country level coordination when feasible.** The project design had included potential partnership with UNEP, but this did not materialize due to the focus of the project and constraints regarding needed tools and project management requirements. Still, the project complimented the work of others in each country. Project investment in building up the institutional set up and NTF during its first year and the **undertaking of the mapping helped understand and coordinate the landscape of interventions and actors** working on EE in the buildings sector in each country **and position the project intervention** in support of existing efforts. Notable example of synergies and complementarities that the project helped drive are Jordan's baseline mapping which was coordinated with EU Technical Assistance to the

Renewable Energy & Energy Efficiency Programmes in Jordan (REEE II) regarding overall consumption patterns and calculation of total energy use in buildings. Tunisia's Baseline was also approached in synergy with the German International Cooperation for Development (GIZ) – Programme for Energy Efficiency in Buildings (PEEB) that was targeting public buildings whereby the UNDA project studied the remaining buildings.

**Operational efficiency within ESCWA has been limited** to some support in design of the media tools. There has been limited if any evidence intra/inter-departmental or sub-programme operational efficiency in regard to gender mainstreaming. A few project consultants note that they would have benefited from some backstopping in ensuring adequate mainstreaming and consideration the gender and HR in their work. Also, since the project worked with national statistics offices, the evaluation finds that future programming could work with the statistics division to support and institutionalize the work on the survey.

### **ESCWA Value Added and Positioning**

ESCWA was **well positioned to conduct the project**. Consultations with stakeholders strongly support ESCWA's position in implementing the project due to its **strong alignment with its mandate and role in the region**. The evaluation captured a wide consensus on ESCWA's **credibility and reputation** compared to some other actors that also well positioned it to implement the project.

"Other actors bring technologies and mechanisms that are not necessarily suitable to the country and context. ESCWA's added value is in strategic gearing and finding suitable solutions fit to Arab citizens" Project consultant

In this UNDA project, **ESCWA's entity strengths** in terms of **understanding the region's needs and those of its MS** that it can scale at regional level, its **resourcefulness** and ability to bringing in the **needed know how** although room remains for it leveraging the policy influencing sphere as earlier noted. As evident in the project experience also, ESCWA demonstrated its **ability to organise and cooperate on country level**, which is necessary for example in developing financial mechanisms that would sustain beyond projects and individuals who engage in the project. **ESCWA convened important relationships among institutions in the same country** that have previously not cooperated with each other on relevant matters such as DOS and MEMR in the survey. ESCWA is also widely appreciated for its **networking and its work on exchanging experience amongst countries in the region and elsewhere**.

As widely perceived by interviewed stakeholders, ESCWA's **financial resources are relatively smaller** than country-level development programs by other actors **but the designated resources were optimized** through leveraging the selection of intervention, know-how and highly credible subject matter experts and consultants from the region, the use of Arabic language which is particularly valued when working with public sector servants, all of which were critically needed and had prevented local institutions from undertaking similar initiatives on their own.

### **4.3 Sustainability**

#### **Evaluation Questions**

- Do project beneficiaries and/or member States and/or stakeholders have ownership, capacity and resources to maintain the activity results after external funding ceases?



- Did the project contribute to capacity building of local institutions and/or member States to continue to deliver quality services?
- What are other major factors that influenced the achievement or non-achievement of sustainability of the project?
- Were there mechanisms built into the project design to ensure it provides ongoing benefits? Were there additional actions that should have been taken to address this?
- Were any areas of the intervention clearly unable to be maintained over the long-term, and what lessons could be learned from these?
- Are the beneficiary member States now able to build on the results achieved? Has the project led to the identification of future directions?

### Main Findings:

1. Stakeholders from target MS demonstrate high ownership to maintain and build on the results that were achieved by the project enabled by their enhanced capacities and the project participatory approach that were factored in the project design.
2. The project also helped establish a roadmap for countries future actions, including with other actors, while also enabling customized work.
3. MS Stakeholder's continued abilities to build on project benefits remains subject to several variables namely the country level sector- governance and coordination landscape and their institutions' role in the sector and capacities.

The project realization of its goal in building **greater and new capacities, understanding and awareness** amongst MS in promoting EE in the existing building stock and the specific areas of work it focussed on comprises its central sustainability. The DA project helped build capacities and introduce new capacities in developing implementation schemes and financial mechanisms amongst some stakeholders like JREEEF and ANME. In Jordan, the development and training on the consumer survey comprises new capacities that were promoted at DOS and MEMR. Also, trainings that were delivered on stakeholders' utilization, maintained and scaling of project outputs such as the digital platform in Tunisia, should also help anchor sustainability of project results.

*"The project helped build JREEEF capacities through providing much needed data that was severely lacking to feed policy making and through our firsthand experiencing and understanding of the potential and challenges and size of funding needed to develop financial and implementation schemes"* JREEF/MEMR representative

**Some of the project outputs are also replicable** and can be adapted in other countries, such as the survey, training materials and brochures as well as implementation schemes in countries with conducive sector governance like that of Tunisia. Through the project, ESCWA produced ready -made tools on energy labelling/ ESCWA training tools/models that it can make public on demand for other MS to access.

The project also **helped establish a roadmap for countries future actions** while also enabling customized work through building on its outputs such as the mapping and policy training recommendations, findings from the consumer survey upon its implementation, etc. This is leveraged through high MS ownership to building on the achieved project results to develop policies, business models and regulations. The produced **outputs and knowledge products** including the mapping reports, readymade tools on energy labelling, and training material **will continue to be used post the project period and act as reference for MS and other supporting actors**. The implementation of the consumer survey is anticipated to also open a

range of potentials especially in Jordan as it will be its' first detailed baseline on residential energy consumption as earlier noted.

The evaluation captured **strong ownership to maintain the results after external funding ceases** which **was highly influenced by the project's participatory approach and implementation model** (participatory, building interest and ownership over ideas, accompaniment through technical backstopping and internal advocacy, etc.). Stakeholders from countries revealed several new opportunities that they plan to further explore, building on the results of the mapping report. ANME plans to replicate the mapping study in 2030 and MEMR reports that it plans to undertake the mapping in a five-year period as well. There are also initial evidences of stakeholders seeking to build on the project outputs by **attempting to secure funding for their implementation** such as the consumer survey in Jordan and Tunisia. STEG also reports to plan launching the revised consumer survey methodology in 2024 in a digitalized format.

The project experience facilitated **actions that can help improve coordination at country level**. This was particularly the case in Jordan where building on the TA provided by the project through the international expert and consultant from the German Jordanian University, MEMR, DOS and the university are in the process of signing an MOU for collaboration on energy surveillance and monitoring aspects, as well as the implementation schemes. MEMR notes to be referring and using the project outputs in signing MoU with other support actors and countries in the sector.

Stakeholders' continued abilities to build on project benefits **remains subject to several variables** namely the country level sector- governance and coordination landscape and their institutions' role in the sector and capacities. For example, while MEMR and ANME are anticipated to continue monitoring energy consumption and producing reports to inform their policy making, their continued ability to launch initiatives and schemes remains constrained technically and financially. They would require further support and different partnerships including with the private sector to continue to deliver schemes in the building sector in the future. On a more positive side however, the evaluation finds some evidence of the project **supporting internal advocacy within institutions to prioritize EE** as in the case with JREEEF where similar studies were insufficiently resourced by the MEMR. Project work on policy influencing sphere such as the work initiated with JREEEF could have further anchored sustainability of its results but was especially challenging amidst the Pandemic outbreak. Overall however, all stakeholders confirm that project interventions, though mainly on technical aspects have been appropriate amidst rapidly changing market dynamics that may precede policy and regulatory needs and thus the project building of capacities supports MS abilities to understand and plan necessary policies.

#### 4.4 Gender, Human Rights and Disability Inclusion

##### Evaluation Questions

- To what extent were issues of gender, human rights and disability inclusion incorporated into the design, planning, implementation, and monitoring and evaluation practices of the project, as well as the results achieved?
- To what extent did the project respond to and affected the rights, needs and interests of different stakeholders, including women, men, youth, people with disabilities and other marginalized groups?



## Main Findings:

1. The project was not particularly gender relevant in terms of influencing policy or decision making but it adhered to HRBA approach and principles.
2. Issues of gender, human rights and disability were incorporated in the project design, implementation, and monitoring to an adequate extent, but room for improvement in integrating them more systematically remains.

Beyond balanced participation of men and women stakeholders in the project, the project can be said to not be significantly gender relevant in terms of influencing decision-making since issues of existing building stock and solutions to EE concern all household members including women and men. Mainstreaming and **consideration to gender issues in project outputs varied**; the mapping reports are gender-neutral and some of the interviewed consultant's report needing further clarity and support from ESCWA to ensure sufficient mainstreaming of gender issues in their work with the project. More consideration has however been paid in the focus on female headed households and vulnerable groups in the implementation mechanisms that were developed during the project as well as the consumer survey methodology. **Gender consideration** could thus be **improved in the future** through **backstopping and guidance from ESCWA**.

**From a Human Rights lens, the project adheres to HRBA approach and principles** as its objective supports governments as duty bearers to respond to the rights, needs and interests of different stakeholders, including women, men, youth, people with disabilities and other marginalized groups. This is achieved by supporting national governments uphold citizens as right holders' access to energy services. Upscaling EE in the residential sector should lead to lower energy consumption, thus lower energy bills, allowing access to additional energy services (or free up national resources to other basic services) by vulnerable segments of households, and avoiding the risk of energy poverty for these segments, in case of foreseeable increase in energy prices in the region.

Consideration to human rights was also considered during the planning and implementation of the project. For example, it was evident in the inclusion of consumer protection groups (in Tunisia) and civil society organizations **as members in the project task forces** of the two countries. These organizations' representation enabled their input/contribution to project outputs including developing implementation schemes targeting marginalized and vulnerable households and supporting local community development. **National Task Forces' role in mainstreaming human rights would be a good lesson to build on in systematic adherence and mainstreaming of human rights, gender, and disability inclusion in future programming.** It can be operationalised through including relevant organizations in the membership as well as reflecting their role in guarding and promoting mainstreaming of these issues in scope of work and MOUs of the NTFs. **(Lesson Learnt)**

## 5. Main Conclusions, Lessons Learnt, and Recommendations

### Main Conclusions

1. Relevance: The project is highly relevant and in line with ESCWA's mandate, country and regional development needs. and SDGs. During implementation, the project-maintained relevance and response to target countries' needs thanks to its flexible design that helped inform interventions in each country. Project plausibility and logic are sufficiently established,

but it's work on the policy front would have benefitted from further targeted actions and could be plausible if viewed within ESCWA's wider programme of work on energy and climate change.

2. Effectiveness: Despite unprecedented challenges caused by the outbreak of COVID-19 and other challenges at country-level, the project realized almost all its target indicators, outputs and EAs thereby achieving its overall objective to enhance the capacity of target countries to improve and optimise EE in the building sector and up-scale EE programs in the existing residential and non-residential building stock. It applied innovation in its work through focussing its resources on leverage points, producing some innovative tools and convening new partnerships with longer lasting potential.
3. Efficiency: The project made highly efficient utilization of its resources and positioned itself in a complimentary and value addition capacity in both countries. The arrangement with the hired consultants proved an innovative mean of delivering the project that became even more relevant during difficult conditions and helped drive project implementation. **Financial resources for supporting the implementation of developed schemes would have been valuable** partnering with other support actors to help offer a more comprehensive package that taps onto organizational mandates and resources
4. Sustainability: The project helped build greater and new capacities, awareness and ownership amongst MS in promoting EE in the existing building stock and the specific areas of work it focussed on. Work on the policy aspect could not (have) materialized amidst the Pandemic. The project also helped establish a roadmap for countries future actions while also enabling customized work and the produced outputs and knowledge products will continue to act as reference for MS and other supporting actors.
5. Issues of gender, human rights and disability were incorporated in the project design, implementation, and monitoring to an adequate extent, but room for improvement in terms of their integration more systematically remains.

### **Summary of good practices applied by the project**

1. Project governance enabling continued consultative process with national level-task force enabling co creation and innovation.
2. Thinking regionally and operationalizing locally; enabling project design to allow realistic offering/ways to realize the goal.
3. Making up for not having sustainable country presence; Contracting model of experts enables updating and follow up, resourcefulness and relations that came handy in times of Covid 19/ strike, and FPs acting as the project team.

### **Summary of lessons learnt from project experience**

1. Importance of governance infrastructure; especially in developing the schemes that require mature governance and clear process.
2. Implementation schemes require time to be developed and innovation requires time to be implemented during the project time.
3. Gender can be promoted through national taskforces with targeted role.
4. Empowered focal points are instrumental in driving effective and efficient implementation and maximizing on project results. Time and resource requirements should be factored in when

working with focal points at their existing institutions to ensure their capacities to engage on several projects at the same time especially those of convening nature with multiple stakeholders.

## **Recommendations to ESCWA**

1. Consolidate and disseminate project experience within ESCWA and member States including through LAS and other inter-ministerial meetings as a resource knowledge and to promote political to support EE measures in the sector and the region.
2. Build on the work performed with the two target countries through:
  - a. Catalyzing a regional network of EE practitioners including those engaged from participating member States to network, exchange, promote collective learning and co-creation amongst MS on EE measures.
  - b. Support Jordan especially in following up through manual of procedures, quality control for the developed implementation schemes.
  - c. Support Tunisia and Jordan in their resource mobilization efforts to implement project outputs such as the survey.
  - d. Follow up and document the learning from the countries on their implementation and financial schemes.
  - e. Consider follow up actions to addressing policy gaps and supporting country-level coordination and sector governance needs.
3. Consolidate learning on energy sector governance for future programming. Consider for example exchanging Tunisia's experience in the regulatory framework and governance with Jordan as the project made important inroads/ ground to recognizing the need for an enabling governance.
4. Consider promotion of operational efficiency within ESCWA more systematically especially when interventions target similar stakeholder institutions to better anchor and institutionalize the capacity building work with them (for example national statistics offices in the field energy data).
5. Apply a systematic approach to integration of gender, human rights, and disability mainstreaming especially during the implementation of the project. Consider providing technical backstopping and support to consultants/experts when needed and integrating these issues in the scope of work/ mandate of national task forces.
6. Consider a regional programming that promotes enforcement of buildings codes in EE (Tunisia and Jordan are both challenged in enforcement) to help reduce needed investments in the existing buildings stock.
7. Aside from traditional communications tools (brochures, etc.), consider member states' utilization of more innovative means in their awareness raising actions to their citizens such as social media and infographics.

## **6. Annexes (separate files)**

**Annex 1- Evaluation TOR**

**Annex2- List of People Consulted**

**Annex 3- List of Documents Reviewed**

**Annex 4- Evaluation Matrix**