**Energy Efficiency Standards and Labeling in Jordan**

**-**

**Mid-Term Evaluation**

21 October 2013

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# List of Acronyms

ACAA Agreement on Conformity Assessment and Acceptance

CO2 Carbon Dioxide

CO2e Carbon Dioxide Equivalent

EE Energy Efficiency

EESL Energy Efficiency Standards & Labelling

ERC Electricity Regulatory Commission

EU European Union

GEF Global Environment Facility

GHG Greenhouse Gas

GoJ Government of Jordan

IR Inception Report

IW Inception Workshop

JCC Jordan Chamber of Commerce

JCI Jordan Chamber of Industry

MEMR Ministry of Energy and Mineral Resources

MEPS Minimum Energy Performance Standards

MoF Ministry of Finance

MoIT Ministry of Industry and Trade

MoPIC Ministry of Planning and International Cooperation

MSP Medium-sized Project

MTE Mid-Term Evaluation

MtCO2e Million tonnes of carbon dioxide equivalent

MW Megawatt

NEEAP National Energy Efficiency Action Plan

NERC National Energy Research Centre

NIM National Implementation Modality

PAC Project Advisory Committee

PB Project Board

PM Project Manager

PMU Project Management Unit

PPG Project Preparation Grant

RCREE E Regional Centre for Renewable Energy and Energy Efficiency

RE Renewable energy

RSS Royal Scientific Society

TE Terminal Evaluation

TOR Terms of Reference

UNDP United Nations Development Programme

UNFCCC United Nations Framework Convention on Climate Change

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# Project Summary

GEF Project ID: 3215

UNDP-GEF PIMS ID: 3735

GEF Agency Project ID: 00074459

Country: Hashemite Kingdom of Jordan

Project Title: Energy Efficiency Standards and Labelling in Jordan

GEF Agency: UNDP

# Executive Summary

Project Summary

The EESL project is a Global Environment Facility (GEF)-funded Medium-Sized Project (MSP), with GEF support of US$ 965,000 (not including PPG funding of US$ 35,000), and originally proposed co-financing of US$ 1,323,615 for a total budget of US$ 2,288,615. The project is executed under the United Nations Development Programme’s (UNDP) National Implementation (NIM) modality, with the National Energy Research Centre (NERC) as the national Implementing Partner. The initially-planned project implementation period was for three years. The project implementation start, in the form of the project Inception Workshop, was 3 October 2010. A ‘no-cost’ extension of one year has already been awarded to the project. A recommendation of this evaluation is to provide an additional no-cost extension until 31 December 2014 in order to maximize the impacts of the project.

The goal of the project is to reduce greenhouse gas (GHG) emissions resulting from the energy consumption of electrical appliances in Jordan by achieving a market transformation towards high-efficiency products through the introduction of energy labels and Minimum Energy Performance Standards (MEPS) for household appliances in Jordan, with an initial focus on air conditioners, refrigerators, freezers and washing machines.

The project objective is planned to be achieved through the following five outcomes:

**Outcome 1** - Capacity enhancement in Government and energy agency units for appliance EE policy development, implementation and market surveillance;

**Outcome 2** - Structuring of verification & enforcement of appliance EE labels and standards;

**Outcome 3** - Consumer and retailer awareness-raising and improved marketing of appliance EE standards and labels;

**Outcome 4** - Improvement of manufacturers’ capacity to produce and market EE appliances;

**Outcome 5** - Project Management

Methodology of mid-term evaluation

This mid-term evaluation (MTE), which was a planned activity in the project, reviews the actual performance and progress toward results of the project against the planned activities and outputs, based on the standard evaluation criteria: relevance, efficiency, effectiveness, results and sustainability. The evaluation methodology is based on a participatory mixed-methods methodology, including: (i) a desk review of project documentation and related documents; (ii) a questionnaire survey, and (iii) interviews with key project participants and stakeholders. The combination of methodologies has provided an evidence-based approach to carry out this evaluation. The review period covers the start of project implementation (i.e. inception in October 2010) to August 2013, and it includes an assessment of issues prior to approval, such as the project development process, overall design, risk assessment, and monitoring and evaluation planning. The desk review was initiated prior to the in-country mission that took place between 26 August 2013 and 5 September 2013. The Annual Work Plans and an updated calculation of the global environmental benefits of indirect reductions in GHGs were made available on 1 October 2013.

Main findings of MTE

The MTE has found that the project design carried out a good analysis of risks, although a more recent review has revealed an increasing reluctance of local manufacturers of household appliances to engage with the project. Although the project has identified means of communication and options for local manufacturers to enhance their facilities to produce more efficient appliances, it does not have the financial means to support the local manufacturers to implement these options. This will have an important bearing on the sustainability and replicability of the project.

At the mid-point, the project is behind schedule compared to the timeline planned originally. Despite implementation delays in 2010 and 2011, there are good indications that the EESL project is on track for achieving its expected outcomes by the recommended extension date of 31 December 2014.

There are socio-political and financial risks to sustainability that might present challenges for the remaining implementation period, especially concerning the adoption of MEPS to transform the market for EE electrical appliances in Jordan.

Based on the evaluative evidence collected during this MTE, the **overall performance** of the project is rated ***satisfactory***. The project “**Progress Toward Overall Project Achievement and Impact”** is rated ***satisfactory***. The project faced significant start-up delays due to a lack of institutional coordination, but there are concrete signs that the efficiency in the pace of implementation has increased year on year. This offers confidence that the project is relatively well-positioned for the remaining implementation period, although it is not expected to deliver any direct GHG emission reductions. This is explained by the fact that the labels and MEPS will very likely not to be in place before the project closure; any emission reductions arising from them – which could, in principle, be substantial (approximately 2.6 million tonnes of CO2 (tCO2) emission reductions over a 15-year timeframe) – will necessarily be classified as indirect emission reductions according to GEF accounting principles. Based on the new market data and the anticipated timeline for the adoption of MEPS in Jordan, the cumulative indirect emission reductions will have to be recalculated and verification carried out during the terminal evaluation.

The **relevance** of the programme is considered ***highly satisfactory***. EE is undoubtedly a least-cost option for addressing the mismatch between power supply and demand in Jordan, particularly given the context where the country is facing a critical debt level which is not conducive to large investments in power generation. The project is supportive of the Renewable Energy and Energy Efficiency Law No. (13) 2012, as well as the Bylaw No. (73) 2012 - Bylaw on Regulating Procedures and Means of Conserving Energy and Improving Its Efficiency. The project is also supporting the relevant GEF strategic objectives, and forms part of Jordan’s contributions to the United Nations Framework Convention on Climate Change (UNFCCC) to stabilize greenhouse gas emissions below dangerous anthropogenic levels.

Based on all aspects of project implementation and financial management, project **efficiency** is rated ***moderately satisfactory***. Overall project disbursement is at a relatively low 28.6% but committed expenses for activities that will be completed by the end of 2013 will increase the disbursement up to 35.2%. The project management cost is currently 26.2%, which is above the GEF threshold of 10%. Nevertheless, the current level of project management spending from GEF funds represents only 7.5% of total GEF funds. UNDP has so far contributed US$ 26,008 in cash co-financing, and it has committed an additional US$ 74,000 between September 2013 and June 2014 that should be used henceforth to cover all project management costs as per the Project Document. In this scenario, GEF project management cost should certainly be kept under the 10% level by the end of the project.

The project involves all of the main national stakeholders and it provides a platform for coordinating the efforts of the key partners involved, including various ministries, the National Energy Research Centre, the Jordan Standards and Metrology Organization (JSMO), the Energy Regulatory Commission, the Jordan Chamber of Commerce, the Jordan Chamber of Industry, the Royal Scientific Society, UNDP, the EU delegation and NGOs, among others. The list of stakeholders was revised at the beginning of the project to make it more responsive to country needs. The project has not had a regional reach so far, except for a study tour that was carried out in Egypt in late 2011. Interactions with the Regional Centre for Renewable Energy and Energy Efficiency (RCREEE) based in Cairo would be beneficial on many levels, as is further discussed below.

UNDP’s oversight and monitoring have been well conducted, and the project’s finances are managed according to UNDP’s institutional fiduciary norms and quality standards. A unique strength of the project is the flexibility in its implementation to respond to changing assumptions and circumstances. While the outcomes of the project have remained unchanged, its outputs were comprehensively reviewed at the end of 2011 in order to account for circumstances that were not identified at the design, conceptualization and inception stages of the project. This situation has been attributed to the low level of institutional coordination that prevails in Jordan and the lack of communication between institutions and development partners at the highest management levels.

Progress made to date has been spread across all the outcomes of the project, and a significant work volume remains to be accomplished by June 2014. In order to maximize the impacts of the project, a recommendation is made here to grant a further ‘no-cost’ extension to the project until 31 December 2014. Given the circumstances, project **effectiveness** is rated ***satisfactory***, with outputs that are expected to have significant impacts beyond the lifetime of the project being achieved under Outcomes 1, 2, 3 and 4.

*Outcome 1:* The project is on track to enhance the capacity of JSMO to carry our market surveillance of EE appliances, especially fraudulent imports and locally manufactured products. The project is supporting JSMO to develop an innovative web-based tool and database to harmonize its surveillance capacities that will be compatible with EU norms.

*Outcome 2*: The project has developed the laboratory and equipment specifications for testing EE appliances. The RSS has taken this output forward and approached another donor (USAID) to fund the laboratory equipment for air conditioners, and USAID is also anticipating funding equipment for testing refrigerators and freezers. USAID adopted the specifications developed by the GEF project without any changes. Concurrently, the EESL project will fund the testing laboratory for washing machines. The capacity to carry out accredited tests of the minimum energy performance standards of EE appliances is an integral component of ensuring that electrical appliances meet the regulatory EE standards – i.e. ensuring conformity.

*Outcome 3*: A survey of 1,000 households distributed across the country has been completed. It has revealed the low-level of awareness of EE among the population, especially outside Amman. The study has also identified income, education, gender and others as factors associated with the usage behaviour of household appliances. The results of this survey are now being used to develop the communication campaign to enhance the awareness of customers and retailers of EE appliances.

*Outcome 4*: Two very important studies that will be instrumental in informing the timeline for introducing MEPS in Jordan are being finalized. The first has investigated the macro-economic impacts of introducing standards and regulations in order to understand the long term market transformation. The second study has assessed a number of policy options for supporting local manufacturers to adjust their manufacturing facilities to meet the requirements of the MEPS. The two studies will be used by JSMO and the Ministry of Industry and Trade to establish a timeline for the introduction and enforcement of MEPS on household appliances, while taking into account the special needs of local manufacturers.

The MTE concludes that although the project implementation has suffered from delays, it is well-placed to produce lasting results during the remainder of its lifetime.

Sustainability

Usually, an MTE is not well-placed to provide ratings on sustainability. However, since this MTE is being carried beyond the half-way mark, there is visibility about the likelihood of sustainability beyond the project lifetime. Consequently, this evaluation report includes a sustainability rating, based on an analysis of the four components of sustainability: the overall **sustainability** of project results is considered ***moderately likely***. The most significant risk to sustainability has been identified by the project as the considerable opposition from manufacturers and importers to the mandatory implementation of the standards. The response from local manufacturers stems from the fact that their current technologies do not allow manufacturing of EE appliances, and upgrading of production lines will be costly and financially unsustainable. The risk is tempered by the government’s insistence on enforcing the standards while providing a sufficiently long transition period to upgrade their production facilities. However, actions or mechanisms to mitigate the financial risks associated with the transition are not yet in place (Section 5.1).

Lessons learned

The project has produced the following lessons learned that should be captured as best practices (Section 6.1).

* Adaptive management: There is evidence that the project has been run in a flexible and adaptive manner. The outputs of the EESL project were reformulated late in 2011 when it became known to the PMU and project stakeholders that JSMO would adopt the EE regulations and standards of the EU;
* Usefulness of the results framework: While the project has been adaptive in reformulating the results framework, it has not fully capitalized on its usefulness as a tool for the proper implementation and monitoring and evaluation of the project. The main lesson learned is the need to also cover the outputs of the project in the results framework;
* Catalyst: The EESL project is expected to play a catalytic role to promote EE in Jordan beyond its lifetime by setting up an EE testing laboratory for washing machines, supporting JSMO to set up an online surveillance tool, providing alternative policy options for supporting local manufacturers in upgrading their production facilities and by increasing the awareness of end-users and retailers of appliances. As discussed below (**Table 2**), the project will require additional time – i.e. until 31 December 2014 - so that its full catalytic effect can be realized;

Priority issues and priority actions

Priority issues are identified as high-level administrative matters that will have to be addressed during the remaining part of the project. Priority actions relate to the specific outputs and activities towards which the project should allocate its scarce resources in order to maximize project impacts.

**Table 1** below provides a summary of the priority issues for the remaining implementation period, as well as recommendations to address them. The stakeholders responsible for acting on the recommendations are provided in brackets in the right-hand column.

Table 1. List of priority issues and recommendations.

| **Priority Issue** | **Summary** | **Recommendations** |
| --- | --- | --- |
| Emission reduction calculations | Although the project was expected to deliver direct emission reductions, it will most certainly not deliver any such emission reductions during its lifetime. The baseline for emission reductions in the Project Document was calculated using data for years between 2001 and 2005. Given (i) the delay accruing in implementation; (ii) that more reliable data has subsequently been generated by the project through market surveys; and (iii) that there has been a natural evolution in the efficiency of appliances, it is recommended that indirect emission reductions are calculated in order to better capture the global goal of the project, and to calculate the cost of CO2 abatement. Since Jordan now has registered CDM projects, the calculation of emission reductions from avoided electricity use from EE appliances can be obtained using the Grid Emission Factor of the national grid.  The project is still expected to deliver indirect emissions beyond its lifetime. | The mid-term evaluator has discussed the methodology to calculate the cumulative indirect CO2 emission reductions that will accrue from the enforcement of MEPS in Jordan using update data and new assumptions. The Grid Emission Factor for Jordan (0.67 tCO2e/MWh) has been used in the calculations. Cumulative indirect benefits of the order to 2.64 MtCO2e have been calculated for a post-project period of 15 years. The validity of the calculations should be revised during the Terminal Evaluation of the EESL project.  [PMU and Consultant] |
| Co-financing (cash) | To date, the co-financing from GoJ and UNDP stand at 64% and 26%, respectively. These figures are relative to the commitments given in the Project Document. To date 26.2% of GEF funds have been used to cover project management costs, which is equivalent to 7.5% of total GEF funds. While there is still a margin of 2.5% of total GEF funds to be used for project management costs, caution must be exercised to better manage the remaining GEF funds. | Both UNDP and GoJ have to contribute their outstanding cash co-financing to the project.  [UNDP and GoJ] |
| Annual work planning | AWPs for 2012 and 2013 were reviewed. Since the Project Board (PB) is expected to approve AWPs, and since it has met only once in April 2012, it is concluded that there has been little quality assurance provided to AWPs and budgeting processes. The 2013 AWP was not approved by the PB because it was not consulted – i.e. there have not been any PB meetings after April 2012 when the 2012 AWP was approved. | Based on these observations, it is strongly recommended that the PB should meet more regularly (at least every 3-4 months) until the closure of the project, and that the 2014 AWP, including budget, be approved by the PB.  [PMU, UNDP, MoPIC and NERC] |
| Use of results framework | The results framework of the EESL project is of a poor quality that does not allow the effective and efficient scheduling, implementation and M&E of outputs. The results framework is detailed only at the level of outcomes while completely leaving out the outputs. There are neither baselines nor indicators for monitoring and evaluating results. | The management team missed two opportunities to modify the results framework. The two opportunities were: (1) the inception workshop; and (2) late in 2011 when the results framework was reformulated at the level of outputs and validated by the Project Board. While developing the next AWP, it would be useful for the management team to address this issue. It is also a shortcoming that should not be repeated in future project development.  [UNDP, PMU] |
| Regional collaboration | The EESL project seeks to achieve several outputs that can be enhanced through closer collaboration with the Regional Centre for Renewable Energy and Energy Efficiency (RCREEE) which is based in Cairo, Egypt, and, of which, Jordan is a member through MEMR. For instance, RCREEE already has a regional project[[1]](#footnote-1) on developing EE indicators that the EESL project can piggy-back on for developing baseline data and benchmarking techniques (Target 15, Section 4.1.2). Through this collaboration, the EESL project will also be better placed to share its lessons learned and best practices to a wider regional audience (Target 10, Section 4.1.2). Since the focal point for RCREEE is MEMR, engagement of the EESL project with RCREEE could be another means for enhancing collaboration between NERC and MEMR. | The PMU should seek to collaborate with RCREEE through MEMR to enhance its delivery.  [PMU] |
| Project termination date | Looking at the progress made towards completion of objectives and outcomes of the project, it is clear that the EESL project cannot be completed successfully by the expected due date of 1 June 2014. There are two critical elements of the project that will need more time for their impacts to be fully revealed. The first relates to the commissioning of the testing laboratory for washing machines and training of technical staff to operate the equipment. This laboratory is a critical asset for the subsequent enforcement of MEPS. Second, the awareness campaigns for end-users and retailers is not anticipated to start before January 2014, in which case a period of 4-5 months will certainly not be sufficient to achieve the full impacts of awareness raising. More details are given in **Table 2** below. | It is recommended that the project should be extended by 7 months to 31 December 2014 in order for the project to maximise sustained impacts. There need not be an increase in funding as long as pledged cash co-financing is obtained. GoJ, through MoPIC, has already contributed 64% of cash co-financing, and the UNDP Country Director has committed around US$ 74,000 towards the project for 2014.  [UNDP, GoJ] |

**Table 2** highlights the priority actions that should be the focus of the project until its closure. The priority actions should ensure the effective and efficient allocation of the resources of the project in order to maximize its impacts. **Table 2** should also be used to inform the development of the 2014 AWP.

Table 2. Priority actions and their impacts.

| Priority action | Corresponding activities in results framework | Expected impacts |
| --- | --- | --- |
| Development of awareness materials and implementation of awareness campaigns | 3.1.2 3.1.4; 3.2.2 – 3.2.3; 4.3.1 – 4.3.3 | Based on completed sociological field research, the development of awareness materials is currently being carried out. All forms of awareness materials proposed by the project should be completed by the end of 2013 so that the awareness campaigns can be implemented at the beginning of 2014. It is known in marketing theory that goods and services are purchased only when they form part of the awareness set of the consumer. The market penetration of EE appliances, therefore, requires that such products from part of the awareness of purchasers. The combination of conventional and innovative social marketing techniques will help shift consumer purchasing behaviour towards more energy efficient appliances. The awareness campaigns will also allow retailers and manufacturers to better market the benefits of EE appliances. |
| Completion of the technical market assessment and finalization of policy options for local manufacturers to restructure their manufacturing facilities to be compliant with the introduction of MEPS | 3.2.4; 4.1.1 – 4.1.2; 4.2.1 – 4.2.3 | A better understanding of the macro-economic benefits of EE appliances brings several benefits, including, among others: (1) more evidence of their socio-economic and environmental benefits that can be used to promote their marketing; and (2) assistance to policy makers to design cost-effective fiscal and economic instruments to incentivize consumers to purchase EE appliances. Although the second benefit does to form part of the imminent objective of the project, the results to the market assessment will pave the way for more policy support for EE appliances in the future.  The policy options concerning the implementation of MEPS and labels in Jordan is a crucial outcome of the project that will be decisive during the negotiations between GoJ and the EU for introducing EU-harmonized standards in Jordan. A central outcome of the policy options study will be a recommendation on the transition time that will be required to allow local manufacturers to upgrade their facilities to produce higher efficiency appliances. This is a critical issue for protecting local manufacturing and jobs at a crucial juncture when the export market for locally manufactured appliances has virtually collapsed because of ongoing political instability in countries neighbouring Jordan. |
| Procurement of testing equipment for washing machines and training of technical staff at RSS | 2.3.3 – 2.3.5 | Enforcement is a critical element of any successful implementation of MEPS and labels, and for which the capacity for carrying out accredited performance tests is a requirement. By developing accredited laboratories (as more are expected through USAID financial support) and skilled technicians, Jordan will also be able to position itself as a regional centre of excellence for carrying out energy efficiency tests on home appliances. |
| Product surveillance database for tracking illegal border declaration and second hand products | 2.1.1 – 2.1.5; 2.2.1 – 2.2.2 | Enforcement is a critical element of any successful implementation of MEPS and labels. There are several elements that are necessary in order to facilitate enforcement. While the capacity for carrying out accredited performance tests is one such requirement, the ability to track the movement of illegal and/or sub-standard second-hand appliances is another important requirement. Developing a product surveillance database and associated systems and procedures, and including human and institutional capacity building, will allow the latter to be achieved. Once developed, the capacity of the database to track additional products may be increased in the future, thereby providing sustainability beyond the lifetime of the project. |
| Training for the energy sector on tools to harmonize energy planning | 1.4.2; 1.4.3; 1.4.5 | Energy policy analysis, including the impacts of alternative policy scenarios on the reduction of GHG emissions, are necessary for charting out the low-carbon development of Jordan. Consequently, the project should endeavour to harmonize the use of integrated energy modeling tools across key institutions (NERC, ERC and MEMR), and to enhance human skills in using the modeling tools through appropriate capacity building. |
| Publication and wide dissemination of lessons learned | 1.3.2 | This will ensure replication of the best practices arising from the project by capitalizing on its lessons learned, including avoiding pitfalls. For greater impact, the lessons learned should be disseminated beyond the borders of Jordan, and using the RCREEE network may prove to be a useful strategy in this respect. A regional dissemination strategy of lessons learned will also support the objective of the project to position NERC and RSS as regional centres of excellence for the testing of EE in home appliances. |
| Monitoring systems put into place | 1.4.4; 1.5.1;1.5.2 | In general, monitoring systems are necessary to track performance and to carry out adaptive management – i.e. to make necessary changes when expected outcomes are not achieved. They also allow the assessment of efficiency of achieving planned objectives and targets. Therefore, the project should strive to establish EE project baselines, indicators and benchmarking techniques, as well as databases for monitoring the evolution of the markets for EE appliances. Well-designed monitoring systems will be a determining element of the sustainability of the project beyond its lifetime. |

Summary of mid-term evaluation

The following table summarizes the mid-term evaluation. The ratings for the project results are based on those indicators of the logical framework that would be applicable for the mid-term review. For instance, targets that need to be completed by end of the project are not included in the evaluation.

Table 3. Mid-term Evaluation Rating Summary.

| **Project Component or Objective** | **Rating** |
| --- | --- |
| **Project Formulation** |  |
| **Relevance** | HS |
| Conceptualization/design | MU |
| Stakeholder participation | MS |
| **Project Implementation** |  |
| **Implementation Approach (Efficiency)** | MS |
| The use of the logical framework | MS |
| Adaptive management | S |
| Operational relationships between the institutions involved | S |
| Financial management | MU |
| **Monitoring and Evaluation** | MS |
| Monitoring and evaluation design | MS |
| Monitoring and evaluation implementation | MS |
| Monitoring and evaluation budgeting | MS |
| **Stakeholder Participation** | S |
| Production and dissemination of information | S |
| Local resource users and NGOs participation | S |
| Establishment of partnerships | S |
| Involvement and support of governmental institutions | S |
| **Project Results** | **S** |
| **Progress Toward Achievement of Objective and Outcomes (Effectiveness)** | S |
| **Objective:** Reduce GHG emissions by supporting a market transformation towards energy efficient new appliances in Jordan | MS |
| **Outcome 1:** Capacity enhancement in Government and energy agency units for appliance EE policy development, implementation and market surveillance | S |
| **Outcome 2** - Structuring of verification & enforcement of appliance EE labels and standards | S |
| **Outcome 3** - Consumers’ and retailers’ awareness-raising and improved marketing of appliance EE standards and labels | S |
| **Outcome 4** - Improvement of manufacturers’ capacity to produce and market EE appliances | S |
| **Outcome 5** - Project Management | MS |
| **Sustainability** | ML |
| Financial sustainability | MU |
| Socio-political sustainability | MU |
| Institutional and governance sustainability | L |
| Environmental sustainability | L |
| **Progress toward Overall Project Achievement and Impact** | **MS** |

*Note: The ratings for the main evaluation criteria are narratively highlighted in the report; other ratings are not.*

*Ratings explanation: HS – Highly Satisfactory; S – Satisfactory; MS – Moderately Satisfactory; MU – Moderately Unsatisfactory; U – Unsatisfactory; HU – Highly Unsatisfactory; UA – Unable to Assess; N/A – Not Applicable.*

*Sustainability ratings: L – Likely; ML – Moderately Likely; MU – Moderately Unlikely; U – Unlikely.*

# 1. Scope of Evaluation and Methodology

## 1.1 Scope of Evaluation

According to GEF and UNDP evaluation policies, MTEs are recommended practice for GEF-funded projects, and a MTE was a planned activity of the monitoring and evaluation plan of the EESL project. The UNDP Jordan office initiated the MTE in July 2013, and the TOR for the MTE is found in **Annex 1**. The objective of this assignment is to undertake an independent review of the project based on guidelines provided by:

(a) GEF Monitoring and Evaluation Policy,[[2]](#footnote-2) and

(b) UNDP-GEF Monitoring and Evaluation Policy.[[3]](#footnote-3)

This MTE reviews the actual performance and progress toward results of the project against the planned project activities and outputs, based on the standard evaluation criteria: relevance, efficiency, effectiveness, results and sustainability. The evaluation assesses project results based on expected outcomes and objectives, as well as any unanticipated results.

More specifically, the objectives of the MTE are to:

* determine progress being made towards the achievement of outcomes;
* focus on the effectiveness, efficiency and timeliness of project implementation;
* highlight issues requiring decisions and actions;
* present lessons learnt and best practices about project design, implementation and management, and state how they can be applied to future and other on-going projects;
* examine the performance of the project since the beginning of its implementation as measured against planned outputs set forth in the Project Document in accordance with rational budget allocation and the assessment of features related to the process involved in achieving those outputs, as well as the initial and potential impacts of the project;
* address underlying causes and issues contributing to targets not adequately achieved;
* identify weaknesses and strengths of the project design;
* recommend any necessary changes in the overall design and orientation of the project by evaluating the adequacy, efficiency, and effectiveness of its implementation, as well as assessing the project outputs and outcomes to date;
* assess if there is evidence that sustainability of benefits is being built into the project (institutional and financial capacity);
* provide detailed recommendations on the work plan for the remaining project period and to assess early signs of the project success or failure, and prompt any necessary adjustments;

The MTE forms part of the adaptive learning process wherein the findings of the MTE are incorporated as recommendations for enhanced implementation during the remainder of the project’s term. The lessons learned can also be used by similar projects elsewhere, including in neighbouring countries in MENA and the South Mediterranean.

## 1.2 Methodology

In order to complete the assignment, a combination of (i) desk review, (ii) survey using a tailor-designed questionnaire, and (iii) in-person consultations has been used, as discussed below. The combination of mixed approaches favoured a more effective evaluation. The proposed approach was to carry out the questionnaire survey prior to in-country consultations, which would have allowed any queries of respondents to be answered during face-to-face meetings. However, the PM of the EESL project advised that the questionnaire should be administered during face-to-face meetings because of the generally very low response rates. This process was followed and the questionnaire was given to stakeholders to complement the in-person discussions.

### 1.2.1 Desk review

A desk review of the following documents that were provided by the staff of the EESL project was undertaken:

* Approved Project Document
* Inception Report
* Revised Results Framework (and accompanying justifications)
* Annual Work Plans (2012, 2013)
* Project Implementation Reviews (PIRs up to and including September 2013)
* Combined Delivery Reports (CDRs for 2010, 2011, 2012 and Jan-Aug 2013)
* Quarterly Progress Reports (Quarter 4 - 2011 to Quarter 2 – 2013)
* Minutes of Project Board Meetings
* Reports and other deliverables of the project

### 1.2.2 Survey

The survey was carried out by applying a questionnaire that is found in **Annex 2**. The questionnaire was designed based on prior experience with the evaluation of UNDP/GEF-funded projects, and it covers the objectives of the MTE (see Section 1.1). The questionnaire was sent electronically to the following stakeholders: National Energy Research Centre; Ministry of Energy and Mineral Resources; Jordan Standards and Metrology Organization; Energy Regulatory Commission; Focal Point (a private sector consultancy company); and PKF Accounting & business advisers / Bio Intelligence Services. A written response was obtained from Focal Point only, which confirmed the advice of the Project Manager to administer the questionnaire during face-to-face interviews with the stakeholders (see Section 1.2.3). The responses of the stakeholders are found in **Annex 3**. The results are the synthesis of both the written and oral responses.

### 1.2.3 Consultations

Face-to-face meetings were carried out with all the stakeholders identified in Section 1.2.2. During these meetings, the answers of the stakeholders to the questions in the questionnaire (**Annex 2**) were noted. The agenda of the in-country mission was organized by the staff of the EESL project, and the selection of stakeholders was based on experience of the staff with the requirements of the MTE, and the time limitations of the MTE. With additional time, more stakeholder viewpoints and relevant data could have been gathered for this mid-term evaluation. The agenda for in-country stakeholder consultations is given in **Annex 4**.

### 1.2.4 Time Schedule for the MTE

The time schedule for completing the assignment was agreed between staff of the EESL project and the consultant, and is shown in **Table 4**. The schedule for the desk review was slightly delayed since the PMU made requested documentation available to the consultant on 22 August 2013. The preliminary findings of the MTE were presented to NERC and UNDP during debriefing sessions held on Thursday 5 September 2013.

Table 4. Timeline for completing MTE.

|  |  |
| --- | --- |
| **Activity** | **Timeline** |
| 1. Request for questionnaire to be sent to stakeholders by PMU | 14 August 2013 |
| 1. Desk Review | 22 August to 31 August 2012 |
| 1. In-country stakeholder meetings | 26 August to 5 September 2013 |
| 1. First draft report of MTE submitted | 5 September 2013 |
| 1. Draft final MTE report submitted | 13 September 2013 |
| 1. Final report (incorporates feedback from stakeholders) | 11 October 2013 |

## 1.3 Structure of the Report

The MTE is logically structured to meet the requirements of the evaluation. A brief description of the structure and Sections of the report is as follows:

* **Executive summary** – This provides a concise rationale for the MTE and it summarises the main findings and recommendations;
* **Section 1** provides a detailed analysis of the scope of the evaluation and describes the methodology that has been applied to evaluate the GEF-funded project;
* **Section 2** discusses components, outcomes and outputs of the EESL project in the context of the development context of Jordan. The EE project fits into a context where power supply is constrained, and EE is seen as a way to ensure a better balance between the supply and demand for electricity. The key stakeholders of the project are also identified.
* The design and implementation of the project is discussed in **Section 3**. In particular, the relevance of the project in relation to national, regional and global benefits is discussed, together with the effectiveness in project management. This section also provides an analysis of the financial management of the project to determine its cost effectiveness and efficiency relative to project outcomes. The effectiveness of the GEF Agency is also assessed in this section.
* **Section 4** provides an assessment of the outputs achieved at the mid-project mark. The assessment is based on the expected results and indicators as per the logical framework. It concludes with identifying the priority issues that need to be addressed for the successful implementation of the remaining project.
* In **Section 5**, the sustainability of the EESL beyond the lifetime of the project is gauged based on various dimensions of risks. Also, the adequacy of the monitoring and evaluation of the project is evaluated.
* The main lessons learned thus far and recommendations for improving the delivery of the project are discussed in **Section 6**. This section also gives the final ratings of the MTE.

# 2. Project Overview and Development Context

The project overview summarizes the start and duration of the project, while the development context sets the background against which it was developed, as well as explaining the problems that the EESL project seeks to address. This section forms the reference against which the evaluation has taken place.

## 2.1 Project Start and Duration

The anticipated duration of the EESL project was 3 years, but it was subsequently granted a one-year extension that would bring the closing of the project to 1 June 2014. Following this MTE, a no-cost extension until 31 December 2014 is recommended for the project to maximize its impacts. The dates for key milestones are shown in **Table 5**.

Table 5. Timing of key Project milestones.

|  |  |  |
| --- | --- | --- |
| **Milestone** | **Expected Date** | **Actual date** |
| CEO endorsement/approval |  | 29 April 2010 |
| GEF Agency approval date |  | 28 July 2010 |
| Implementation start |  | 3 October 2010[[4]](#footnote-4) |
| Mid-term evaluation | January 2012[[5]](#footnote-5) | 27 September 2013 |
| Project completion | September 2013 | 1 June 2014 |
| Terminal evaluation completion |  |  |
| Project closing |  |  |

## 2.2 Development Context

### 2.2.1 Problems Addressed

The Hashemite Kingdom of Jordan is currently experiencing a high population growth rate of 2.2% per year. The country covers an area of about 89,200 km2, sharing borders with Iraq, Israel, Syria and Saudi Arabia. More than 80% of its population of 6.4 million (2012) lives in urban centres, particularly in the northwest of the country in areas constituting about ten percent of the country’s total land area. Amman is the largest city in the country (GoJ-UNDP, 2010).[[6]](#footnote-6)

Jordan currently faces a serious energy challenge because it lacks domestic energy resources and exhibits an ever greater demand for energy to fuel its social and economic development. The demand for primary energy in Jordan increased at an average annual rate of 8.1% between 2000 and 2011 (RCREEE, 2013). Final electricity consumption increased at an average annual rate of 6.0% between 2008 and 2012 (see **Table 6**). While per capita primary energy consumption did not change significantly between 2008 and 2012, the per capita consumption of electricity increased steadily from 1,967 kWh/year in 2008 to 2,230 kWh/year in 2012 – an average increase of 3.2% per annum.

In 2012, the generation, transmission and distribution of electricity constituted 29.6% of Jordan’s total primary energy consumption. The household sector in Jordan accounted for 43% of the total electricity consumption in the country (2012) and this is expected to increase with the growth of the population, economic growth and the number of households using electrical appliances. **Table 6** summarizes the change in electricity end-use between 2008 and 2012.

Table 6. End-use electricity consumption in Jordan, 2008-2012.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Year** | **2008** | | **2010** | | **2012** | |
| **Units** | **GWh** | **%** | **GWh** | **%** | **GWh** | **%** |
| ***Household*** | ***4,459*** | ***39*** | ***5,219*** | ***41*** | ***6,126*** | ***43*** |
| Industrial | 3,128 | 27 | 3,258 | 25 | 3,461 | 24 |
| Commercial | 1,925 | 17 | 2,184 | 17 | 2,427 | 17 |
| Water pumping | 1,713 | 15 | 1,867 | 15 | 1,955 | 14 |
| Street lighting | 284 | 2 | 315 | 2 | 305 | 2 |
| **Total** | **11,509** | **100** | **12,843** | **100** | **14,274** | **100** |

The Jordanian Cabinet first approved a National Energy Efficiency Strategy in 2004, which proposed measures to reduce the burden of imported oil on the Jordanian economy. The Energy Strategy 2007 (GoJ, 2007) has set a target of achieving economy-wide EE gains of 20% relative to the 2007 baseline by 2020, while also mentioning that this target is vital to also achieving a penetration of 10% RE in 2020. The Jordan EE Road Map 2010 explicitly mentions the establishment of policy and regulatory frameworks for labelling of machinery, equipment and appliances to facilitate customer choice based on EE (MEMR, 2010). This project responds to the EE Strategy and Road Map by proposing the introduction of technical norms that will set MEPS and energy labels for the energy efficiency of imported and locally manufactured electrical appliances in the household segment.

EESL are highly cost-effective means to assist countries to reduce energy demand and GHG emissions while stimulating economic growth. This project seeks to transform the Jordanian electrical equipment and appliances (refrigerators, freezers, washing machines, air conditioners) market by providing information that assists consumers to make informed and rational decisions based on life-cycle costs rather than initial investment cost of goods. The introduction of MEPS is expected to bring about significant improvement in EE across all sectors by phasing-out inefficient electrical appliances and equipment from the market. However, as discussed in Section 5.1, the introduction of MEPS will have to be managed carefully given the potential detrimental impacts on local manufacturers.

### 2.2.2 Immediate and Development Objectives of the Project

The project’s global objective is to reduce Jordan’s energy-related GHG emissions by removing barriers to the widespread commercialization of energy efficient appliances in the household sector. This will be achieved through the introduction of an energy labelling system and a MEPS scheme for household appliances in Jordan, with an initial focus on air conditioners, refrigerators, freezers and washing machines.

The development objectives coincide with the goals of the National Energy Efficiency Strategy, namely:

1. To reduce energy consumption without negatively affecting production or the population’s standard of living, to lower the import oil bill at the national level and to reduce the emission of harmful gases to the environment;
2. To improve the nation’s standard of living;
3. To achieve an equilibrium between imports and exports;
4. To reduce production costs and improve the competitiveness of local industries and other sectors; and
5. To reduce investments in the equipment used for the production, conversion, transport and distribution of energy.

#### 2.3.1 Overall goal of Project

The goal of the EESL project is to reduce electricity-related CO2 emissions in Jordan by supporting a market transformation towards EE in new appliances through the introduction of MEPS in Jordan.

#### 2.3.2 Specific objective of Project

The main objective of the project is to remove the barriers to rapid and widespread uptake of EE equipment and appliances in the residential sector.

### 2.2.3 Main Stakeholders

The EESL project is being implemented using a multi-stakeholder approach. The cohort of national stakeholders that were identified during the development of the project, and their roles and functions, are summarized in **Table 7**. It is pointed out that the cohort of stakeholders was modified during the IW and also once implementation began, as demonstrated by the *inclusion of four addition stakeholders highlighted in italics* in **Table 7**. These changes were positive and demonstrate the responsiveness of the EESL project to the country context. On the other hand, and as discussed in Section 3, it will be shown that having the right institutional stakeholders is not necessarily sufficient for the productive (i.e. effective and efficient) implementation of a project. Stakeholders are listed below based on their proximity to the project – i.e. on the basis of their level of involvement in project implementation.

Table 7. Stakeholders of the project and their roles and functions.

|  |  |
| --- | --- |
| **Stakeholder** | **Roles and functions** |
| National Energy Research Centre (NERC) | NERC is the implementing institution, responsible for the successful implementation of the project. It is a directive of MEMR that NERC should take the lead role in driving the Government’s EE Standards and Labelling system for household appliances to implement the Government’s Master Energy Strategy 2007. NERC coordinates activities with other Government institutions and private sector entities involved in the project, such as ERC, JSMO, consumer associations, manufacturers, and appliance distributor/retailer associations. NERC presides over the Project Board. |
| Jordan Standards and Metrology Organization (JSMO) | JSMO plays a proactive role in enhancing the competitiveness of Jordanian products in the national, regional and international markets. To achieve this, JSMO fulfils its mandate to build, implement and update systems compatible with international practices in the fields of standardization, metrology, conformity assessment, market surveillance, accreditation, information and related areas. In this project, JSMO is responsible for adopting EU standards and labels, and carrying out conformity tests and market surveillance for EE appliances. JSMO also plays a key role in establishing the specifications for laboratory testing equipment and their commissioning. |
| Ministry of Energy and Mineral Resources (MEMR) | MEMR is responsible for defining Government policies on energy efficiency, as well as proposing a legislative framework for implementing EE regulations. |
| Ministry of Finance (MoF) | MoF is concerned with the project’s objectives as its mission involves “study and analysis of the fiscal, monetary and economic conditions as well as the evaluation of policies and tax procedures”. The following public departments, whose roles are critical to the project, are connected to the Ministry of Finance: Jordan Customs, Income & Sales Tax Department, General Budget Department and the Free Zones Corporation. |
| Ministry of Trade and Industry (MoTI) | According to its organizational law, MoTI takes on the responsibility of regulating industry by type, classifying it, registering it according to an internal regulation, and preparing the programmes and studies that work on developing the industry and increasing its competitiveness. MoTI’s mission includes developing and implementing policies, legislation and programmes aimed at boosting business and the investment environment in a form that increases Jordan’s economic attraction and ensures the rights and benefits of consumers and the business sector.  Further, MoTI will be responsible for negotiating and concluding the Agreement on Conformity Assessment and Acceptance (ACAA) of industrial products (i.e. EE products) with the EU as part of the EU-Jordan Twinning Project (JO10/ENPAP/TR/15). |
| Electricity Regulatory Commission (ERC) | ERC has the responsibility for monitoring and regulating the power sector. One of the tasks performed by ERC is to ensure the compliance of activities in the sector with applicable environmental protection standards and general public safety conditions as well as to ensure that a sufficient supply of electricity is being provided to customers. ERC is also committed to participating in consumer awareness-raising about energy saving. Recommendations to save electricity have been made available through the ERC's website to inform consumers. ERC will therefore benefit from this project through its participation in project information dissemination, especially the forthcoming awareness campaigns on the benefits of EE standards and labels. |
| Jordan Engineers Association (JEA) | JEA is considered to be the largest professional association in Jordan. It incorporates a large number of Arab and foreign engineers practicing in Jordan. The JEA aims at organizing engineering practices, upgrading engineers’ professional and scientific knowledge and participating in studies of an inter-Arab nature. The Association has a long tradition of collaboration with relevant Government departments since it is officially a consultative entity in its field of specialization. Professionals such as equipment engineers, electrical appliance engineers and engineering firms involved in monitoring the construction of homes and the application of building codes will benefit from technical training and a better understanding of EE requirements in their profession. |
| Jordanian Renewable Energy Society (JRES) | The vision of the Jordanian Renewable Energy Society is to stimulate the exploitation of renewable energy resources in Jordan or anywhere, worldwide, and use that energy efficiently and feasibly for the benefit of Jordan and for all Arabic countries and invest in the now how of renewable energy technology for the benefit of the Arabic world and concentrate on the future energy from the sun. |
| Jordan Association of Consumers (JAOC) | With this project, Jordan’s urban families will improve their living conditions by improving the indoor air temperature in their homes through better air conditioning equipment as well as by operating energy efficient household appliances, thus reducing their annual electricity consumption bills. Consumer associations – and notably the leading association, the Jordan Association of Consumers – will therefore be involved in the design and delivery of public awareness campaigns related to the promotion of the energy labelling system and MEPS for household appliances. |
| Retailers and distributors of EE appliances | A detailed investigation of the household electrical appliances industry in Jordan and discussions with retailers (such as the National Company for Cooling, Abdeen Industrial Corporation, and the Muhammad Sa'eed Company) and distributors (such as Hair and Petra) are necessary to develop and implement a strategy that will help to overcome barriers and to strengthen markets for energy efficient appliances. Through a comprehensive marketing and dissemination campaign (forthcoming), the project will involve retailers and distributors in the regulatory changes and the implications of these changes. |
| Local manufacturers | Local manufacturers of electrical appliances and equipment are a special stakeholder of the EESL project. Compared to importers of appliances, local manufacturers currently do not have the capacity to manufacture electrical appliances that would meet the MEPS. The EESL project will support local manufacturers by investigating policy options that would first of all establish a transition period for allowing local manufacturers to adjust their production facilities to meet MEPS, as well as defining alternative policy instruments to support this transition. |
| *Royal Scientific Society (RSS)* | *The RSS is the umbrella institution for NERC. RSS has also been chosen to house the third-party laboratory for testing the performance of washing machines that will be funded by the EESL project.* |
| *Ministry of Environment (MoE)* | *Although the MoE was not identified as a project stakeholder during the design stage, it has been included subsequently because MoE hosts the Focal Point for climate change and the UNFCCC. MoE is a member of the PAC.* |
| *Jordanian Environment Society (JES)* | *The JES is an environmental NGO that is very active in carrying out awareness campaigns for the protection and conservation of the environment. Though the JES has not been involved in the project thus far, it will be solicited to take an active part in the forthcoming public awareness campaign.* |
| *Jordan Chamber of Commerce (JCC)* | *The key objectives of the JCC are to participate with public bodies in drawing up policies related to trade and service sectors including strategies and plans needed to be implemented, and in the efforts of promoting development and promotion of trade and service sectors including small and medium-sized enterprises. The project is working closely with the JCC to reach and support local manufacturing of electrical appliances to face the challenging task of adjusting to MEPS and labels.* |
| *Jordan Chamber of Industry (JCI)* | *The JCI is an umbrella organization that represents the manufacturing enterprises in Jordan. The mandate of JCI is to support the interests of the Jordanian manufacturing industry, including supporting its members to remain competitive and productive in a more liberalized global trading system. The EESL project is interacting with the JCI to reach local manufacturing enterprises of electrical appliances, both in terms of awareness raising and developing policy options for the restructuring of local manufacturing to adjust to more stringent EE standards.* |

It is important to note that, collectively, the key stakeholders have the technical capacity to implement the EESL project.

In the remaining lifetime of the project, it is recommended that the project should seek a closer collaboration with the Regional Centre for Renewable Energy and Energy Efficiency (RCREEE) which is based in Cairo, Egypt, and of which Jordan is a member through MEMR. The EESL project seeks to achieve a number of outputs that can be enhanced through closer collaboration with RCREEE. For instance, RCREEE already has a regional project[[7]](#footnote-7) on developing EE indicators that the EESL project can piggy-back on for developing baseline data and benchmarking techniques (Target 15, Section 4.1.2). Through this collaboration, the EESL project will also be better placed to share its lessons learned and best practices to a wider regional audience (Target 10, Section 4.1.2). Since the focal point for RCREEE is MEMR, engagement of the EESL project with RCREEE could be another means for enhancing collaboration between NERC and MEMR.

### 2.2.4 Components, Outcomes and Results Expected

The expected outcomes and results for the EESL project as shown in the logical framework given in **Annex 5**. The logical framework shows the objectively verifiable targets and indicators against which performance can be measured and progress reported as done in Section 4.1. The components, outcomes and results are summarized below. It is pointed out that the results framework shown in **Annex 5** is limited to the level of outcomes only and no details are given about the outputs. The outputs and activities were reformulated in 2011 and Section 2.2.4.2 gives the updated list of outputs. A comparison between the original – i.e. as formulated at the IW – and the updated outputs is covered in Section 3.6. The updated list of outputs and activities is given in **Annex 6** and forms the basis for performance analysis in Section 4.1. In the updated list, only four outcomes are covered (i.e. Project Management and M&E Support is not included). Consequently, the outputs of outcome 5 listed in Section 2.2.4.2 are taken from the Project Document.

#### 2.2.4.1 Components of Project

The main strategic approach of the project is to:

* Provide relevant Government ministries with technical assistance and support for the introduction of the first set of appliance standard and labeling regulations as well as support for the design and implementation of support programs;
* Provide tools and methods to the ministries responsible for enforcement so they can ensure that the new regulations are applied consistently;
* Transform the appliance market in Jordan towards more energy efficient technologies through the introduction of energy performance labelling and a set of minimum energy performance standards;
* Educate customers on the importance of selecting a high efficiency appliance to avoid medium- and long-term operating costs;
* Encourage retailers to offer more efficient products in Jordan; and
* Stimulate the introduction of cost-effective, energy efficient technology.

#### 2.2.4.2 Outcomes and Results of Project

Through execution of activities under the above components, five key outcomes and related results are expected:

**Outcome 1** - ***Enhanced capacities in Government and energy agency units for appliance EE policy development, implementation and market surveillance.***

Output 1.1: *Political and policy decision makers’ improved awareness of appliance EE options*

Output 1.2: *Increased government capacity for the development of the legal and regulatory frameworks for EE appliances, including an enabling EE law*

Output 1.3: *Increased government capacity for the development of an energy labeling strategy consistent with regional S&L efforts*

Output 1.4: *Increased government and PMU capacity in appliance EE support project development, implementation and monitoring strategies*

Output 1.5: *Enhanced data collection on appliance sales and stock and a structured monitoring system*

**Outcome 2** - ***Structured verification & enforcement of appliance EE labels and standards.***

Output 2.1: *Enhanced knowledge of state inspectors to check the compliance of appliance energy efficiency declarations*

Output 2.2: *Verification and enforcement plan for retailers developed and implemented*

Output 2.3: *Facilities for product testing developed and implemented*

**Outcome 3** - **Consumers’ and retailers’ awareness raised and improved marketing of appliance EE standards and labels*.***

Output 3.1: *Enhanced consumer awareness of appliance energy efficiency characteristics, standards and labels and the costs and benefits of more efficient products*

Output 3.2: *Enhanced awareness and knowledge of retailers’ management and retail staff on appliance energy efficiency issues and sales rationales*

**Outcome 4** - ***Increased capacity of manufacturers to produce and market energy efficient appliances.***

Output 4.1: *Enhanced capacities of manufacturers and suppliers in S&L regulations and related business opportunities*

Output 4.2: *Enhanced abilities of manufacturers in the development of more efficient appliances*

Output 4.3: *Manufacturer and supplier participation in an end-user awareness campaign about S&L*

**Outcome** **5** - ***Project management and M&E support.***

Output 5.1: *Project management and implementation support*

Output 5.2: *Monitoring and Evaluation activities*

### 2.2.5 Key Elements of Project Planning

The project document is comprehensive, and includes all of the required components, such as stakeholder analysis and participation plan, baseline analysis, assessment of risks and assumptions, monitoring and evaluation plan, sustainability and replicability analysis, replication plan, and project management arrangements. The answers given by interviewees support these observations (see **Annex 3**).

# 3. Project Design and Implementation

## 3.1 Project Outcomes

The outcomes of the EESL project mentioned in Section 2.2.4 seek to address specific country-specific barriers for the rapid and widespread uptake of EE equipment and appliances in the residential sector.

## 3.2 Project Implementation Approach

The EESL project is executed by the Government, through the National Energy Research Centre (i.e. the national implementing partner), under the UNDP National Implementation Modality (NIM). Experience has shown that NIM provides the best opportunity for project support to government priorities and to ensure national ownership. In matters of trade policies, the Ministry of Industry and Trade takes the lead, and the Jordan Standards and Metrology Organization is responsible for standards development, enforcement and market surveillance. But, as will be discussed in Section 3.4, a full NIM approach may not be the best strategy for this project because of the cumbersome procurement procedures used by the government. Indeed, all recruitments and tendering are currently carried out by UNDP.

The PMU carries out the day-to-day running of the project, and it is hosted within NERC. It has a dedicated full-time Project Manager (Mr Mohammad Maaytah) and an Administrative Assistant (Ms Farah Shammout). The remainder of the “project team” consists of the technical specialists and partner organizations contracted to deliver specific project outputs.

The Project Advisory Committee (PAC) was established to oversee project implementation and comprises the following organizations/representatives:

* Ministry of Planning and International Cooperation
* United Nation Development Programme (UNDP)
* National Energy Research Centre (NERC)
* Ministry of Environment (MoE)
* Ministry of Energy and Mineral Resources (MEMR)
* Customs Department
* Ministry of Industry and Trade (MoIT)
* Jordan Standards and Metrology organization (JSMO)
* Project Coordinator/Manager

The PAC members meet once every four months or as needed. The Project Assistant role supports the Project Board (PB) by carrying out objective and independent project oversight and monitoring functions. It is highlighted here that the PAC was established during the IW as a substitute for the Chief Technical Advisor position that was proposed in the Project Document. It has been found that this PAC approach has been more effective at: (1) capitalizing on existing human expertise in Jordan; and (2) further capacity development in EESL at both the human and institutional levels.

The PB is mandated to approve Annual Work Plans and budgets, as well as progress reports on project achievements, and to carry out meet its quality assurance role and responsibilities. As described in the Project Document, the PB is expected to meet once every four months or when the Project Manager finds it necessary. The PB consists of representatives from MoPIC, UNDP and NERC, and is responsible for making, on a consensus basis, management decisions for the project when guidance is required by the Project Manager. As discussed in Section 5.3, the evidence provided by the PMU shows that there have been shortcomings regarding the quality assurance provided by the PB.

## 3.3 Project Relevance

### 3.3.1 Relevance at National Level

The Jordanian Cabinet first approved a National Energy Efficiency Strategy in 2004, which proposed measures to reduce the burden of imported oil on the Jordanian economy. The Energy Strategy 2007 (GoJ, 2007) has set a target of achieving economy-wide EE gains of 20% relative to the 2007 baseline by 2020, while also mentioning that this target is vital to also achieving a penetration of 10% renewable energy (RE) in 2020. The Jordan EE Road Map 2010 explicitly mentions the establishment of policy and regulatory frameworks for labelling of machinery, equipment and appliances to facilitate customer choice based on EE (MEMR, 2010). The EESL project also features prominently in the National Energy Efficiency Action Plan 2013 (GoJ, 2013). This project responds to the EE Strategy and Road Map by proposing the introduction of technical norms that will set MEPS and energy labels for the energy efficiency of imported and locally manufactured electrical appliances in the household segment.

### 3.3.2 Relevance to Multilateral Environmental Agreements

Jordan, having signed the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 and ratified it in 1993 and having acceded to the Kyoto Protocol as a non-Annex-I country in 2003, has maintained a strong commitment to the objectives developed by the international community for the integrated environmental and economic response to the threat of climate change. The Convention entered into force on 28 November 1994.[[8]](#footnote-8) As discussed in Section 3.3.3, the EESL project squarely supports the GEF objective of supporting implementation of the UNFCCC for “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.”[[9]](#footnote-9)

### 3.3.3 Relevance to GEF Strategies, Priorities and Principles

The overall goal of the GEF in climate change mitigation is to support developing countries and economies in transition toward a low-carbon development path. As shown in **Figure 1**, efficiency improvement is one of the least-cost means to achieve GHG emission reductions, and hence promote low-carbon development. The project was approved under the strategic priorities for GEF-4 (July 2006 – June 2010),[[10]](#footnote-10) but is also aligned with the strategic priorities for GEF-5 (July 2010 – June 2014).[[11]](#footnote-11) The EESL project is consistent with the GEF Operational Project 5 Strategic Objective 1: Promote Market Transformation for Energy Efficiency in Industry and the Building Sector. Such transformation is sought through the introduction of appliance standards and labelling.

The EESL project supports the GEF principles as follows:

1. responsiveness to Convention guidance – incremental funding from GEF towards the project exemplifies this responsiveness;
2. consideration of different national circumstances of recipient countries – the project has established the problems in Jordan and was developed to tackle the national barriers as discussed in Sections 2.2, 3.3.1 and 3.3.2; and

(iii) cost-effectiveness in achieving global environmental benefits – the project was initially designed to deliver direct global environmental benefits of GHG emission reductions of 3.82 US$/tCO2e.[[12]](#footnote-12) However, as discussed in Section 5.4, the EESL project is not anticipated to deliver any direct GHG emission reductions during its lifetime (i.e. until 2014). Further, the adoption of MEPS in Jordan is not expected to take place before the 2017-2018 time horizon (see discussions in Section 5.4).

A recommendation has been made by the MTE regarding the re-calculation of indirect GHG emission reductions (and, hence the cost-effectiveness in achieving global environmental benefits) based on updated surveys of electrical appliances in consumer markets, assessment of the market evolution of EE appliances, annual sales volume of new appliances, and based on the grid emission factor of recently registered CDM projects in Jordan.

EE in appliances is known to be a least-cost means to achieving GHG emission reduction, as shown in the abatement cost curve shown in **Figure 1**. Through the adoption of EE technologies, countries are able to reduce the demand for electricity and hence reduce the emissions of GHGs.

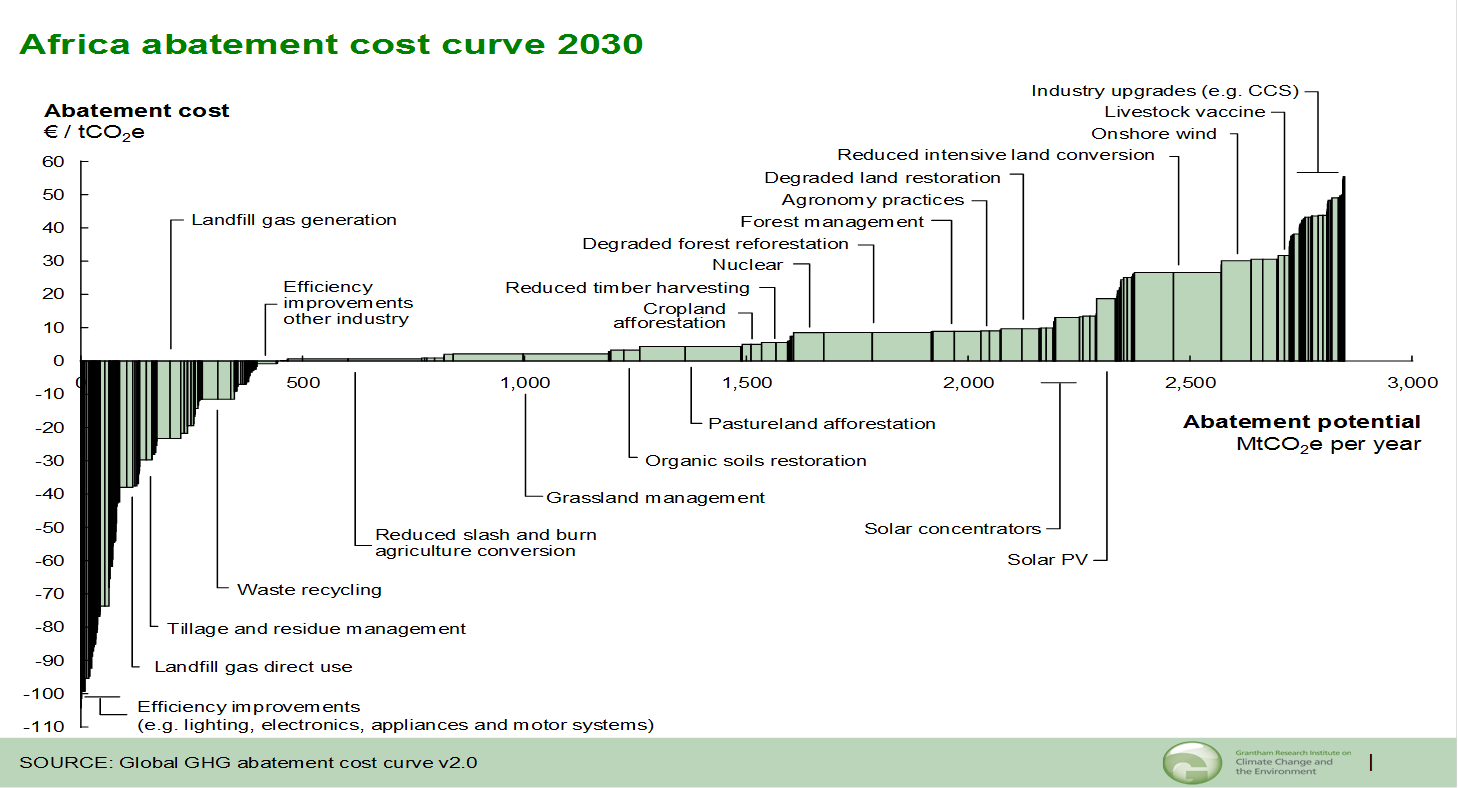


Figure 1. Marginal abatement cost curve (MACC) over the 2030 time horizon *(Sources: Grantham Institute for Climate Change (2009) and McKinsey and Company (2010))*.

### 3.3.4 Country-drivenness and ownership

Country ownership is an important feature of the project assessment since it provides an indication of the future sustainability of the project. There are several key indicators that show unambiguously that the *EESL project is fully owned and driven by GoJ*. For instance,

1. The concept of the project originated indigenously at NERC, which has been actively pursuing energy conservation since the early 2000s with an effort to reduce the cost of doing business in Jordan;[[13]](#footnote-13)
2. The project is relevant to the on-going national efforts to address mismatches between supply and demand of electricity[[14]](#footnote-14) at a crucial time when public sector debt has reached around 80% of GDP;[[15]](#footnote-15)
3. The EESL project squarely supports Renewable Energy and Energy Efficiency Law 2012 and the Energy Efficiency By-law 2012, as discussed in Section3.3.1;
4. The project staff are housed at NERC, which is the implementing institution of the EESL project; and
5. The PB and PAC are both chaired by the Director of NERC, implying the highest level of direct oversight given to the project by the implementing institution.

### 3.3.5 Stakeholder Participation in Implementation

One of the strengths of the EESL project has been the participation of a wide range of stakeholders, as noted by key stakeholders of the project (Section 2.2.3). This is further evidenced by the enlargement of the membership of the PAC (e.g. Jordan Chamber of Commerce and Jordan Chamber of Industry) to include a wide participation that has led to considerable buy-in by stakeholders. One of the key strengths of the project to date, as indicated by stakeholders, has been the multi-stakeholder participation in the implementation of the project. It is pointed out that additional stakeholders will be solicited towards the end of 2013 to actively participate and contribute towards the public awareness campaigns.

## 3.4 Project Management and Cost Effectiveness (Efficiency)

Overall the **efficiency** of the project is rated ***moderately unsatisfactory***. The project management arrangements, as discussed in Section 3.2 describing the implementation approach, do not appear have been used optimally to produce cost-effective execution of the work plan. For instance, there is no evidence that the PB has played its role and executed its responsibilities as expected, implying shortcomings in overall quality assurance of the project.

Overall project disbursement is at a relatively low 28.6%, of which management cost expenditure represents 26.2%. The management cost is currently well beyond the GEF threshold of 10% because the expected cash co-financing from UNDP to cover project management costs has not been forthcoming. There are also issues regarding the AWPs that are discussed below.

Quarterly progress reports covering only the technical aspects of the project are generated before PAC meetings. The project follows standard UNDP financial management procedures, with the project budget managed between the PMU and UNDP staff using the ATLAS system. One of the difficulties experienced during this evaluation has been the lack of access to the AWPs for 2010 and 2011. This may be explained by two factors, namely: (1) delays in the recruitment of the Project Manager; and (2) substantial review of the results framework that took place in 2011 and the changes that were validated in 2012. The latter is discussed in more details in Section 4.

Work plans and corresponding budgets are expected to be prepared annually for approval by the Project Board. The project has developed AWPs for 2012 and 2013. However, as discussed in Section 5.4, the PB has met only once – in April 2012 – to date, demonstrating that this quality assurance has not been achieved. Official annual or semi-annual budget revisions are completed as necessary (approved by UNDP), to reflect updates in the project work plan. Here again, there is no evidence that the PB was apprised of budget revisions. Although the project monitoring and evaluation (M&E) plan calls for an annual audit, the project has not yet been audited. Since UNDP manages the project financial accounts, the project is incorporated in the overall UNDP auditing procedure in which only a few projects are selected to be included in the audit, and this has not yet happened for the EESL project.

## 3.5 Financial Planning by Component and Co-financing

The EESL project is a Global Environment Facility (GEF) funded Medium-Sized Project (MSP), with GEF support of US$ 965,000 (including the GEF Agency fee but not the PPG funding of US$ 35,000), and originally proposed co-financing is US$ 1,323,615 for a total budget of US$ 2,288,615.

### 3.5.3 Financial Planning by Component

Since the EESL project was initially planned for 3 years, the mid-term evaluation should have been completed after 18 months of implementation – i.e. in March 2012. This is also the time when the financial analysis should have been carried out for the MTE. However, neither budget breakdowns nor AWPs have been provided for 2010 and 2011. Consequently, analysis of financial planning has been carried out using the expected budget delivery by the end of year 2 in the approved Project Document as a benchmark. This benchmark also caters (at least partially) to the unanticipated delays the project has experienced through redesigning in August 2011 (please see Sections 3.1 and 3.2).

According to the Project Document, 63% of total GEF funding needed to have been spent after 2 years of implementation. The CDRs show that 28.6% of total GEF funding was spent by 17 August 2013, which reflects the significant delays that have accrued in project implementation (see Sections 3.4 and 3.6). However, the committed expenses related to activities that are in progress and are expected to be completed by the end of 2013 will increase GEF expenditure to 35.2% of its total.

**Table 8** provides the breakdown of expenditures until 31 August 2013. The way that the ATLAS account was set up in 2010 and 2011 was not adequate for monitoring the cost effectiveness and efficiency of project spending. This was duly rectified for the remaining reporting years. Because of the lack of institutional history of the EESL project in 2010 and 2011, a more detailed review of the financial management has not been possible. The amount of US$ 10,637.44 which is attributed to cash-co-financing from GoJ could not be allocated to the different outcomes of the project. It has been arbitrarily allocated to outcome 3 in **Table 8**. This is not a significant shortcoming since GEF expenses for those two years amounted to only 2% of total GEF funding.

Table 8. Breakdown of expenditures to 31 August 2013.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Outcome** | **Aug-Dec 2010** | **Jan-Dec 2011** | **Jan-Dec 2012** | **Jan-Aug 2013** | **TOTAL** |
| 1 |  | 6,673.42 | 1,179.00 | 60,672.55 | 68,524.97 |
| 2 |  |  | 21,290.00 |  | 21,290.00 |
| 3 |  | 10,637.44 | 29,823.00 | 10,289.61 | 50,750.05 |
| 4 |  |  | 73,644.00 |  | 73,644.00 |
| 5 | 3,350.33 | 35,949.94 | 51,822.00 | 9,084.86 | 100,207.13 |
| TOTAL | **3,350.33** | **53,260.80** | **177,758.00** | **80,047.02** | **314,416.15** |
| GEF (62000) | 3,350.33 | 16,615.48 | 177,759.00 | 78,263.52 | 197,724.81 |
| UNDP (04000) | 0.00 | 26,007.88 | 0.00 | 0.00 | 26,007.88 |
| GoJ (30071) | 0.00 | 10,637.44 | 0.00 | 1,783.50 | 10,637.44 |
| TOTAL | **3,350.33** | **53,260.80** | **177,759.00** | **80,047.02** | **234,370.13** |

Several observations can be made from **Table 8**. These are:

* Expenditure has progressed significantly between 2010 and 2012/2013, revealing the significant efforts that have been dedicated to putting the EESL project back on track for completion in 2014;
* Except for the Inception Workshop in October 2010, no project activities were carried out in 2010;
* In 2011, expenditures increased through a South-South cooperation visit to a similar UNDP project in Egypt, where the Jordanian delegation shared their vision of the awareness campaign and legal procedures with the Egyptian counterparts who are still optimizing the procedures in their own project. Likewise, the Jordanian delegation benefitted from the work that was carried out by Egypt, especially on the procurement of testing equipment and laboratory set-ups;
* Analysis of expenditures has revealed that delivery was at 77% in 2012 (with the planned expenditure in the 2012 AWP being US$231,300) and is expected to be at least 51% by the end of 2013 when committed expenses are taken into account (the planned expenditure in the 2013 AWP is US$285,800). These figures provide evidence that implementation is proceeding well following the redesign of the project at the end of 2011;
* As of 17 August 2013, the total GEF expenditure amounted to US$275,987.33, which corresponds to 28.6% of the total GEF allocation. This figure increases to 35.2% when committed GEF-related expenses are accounted for. Although this figure is much less than the 63% benchmark identified earlier, it is expected that the: (1) development of awareness materials and implementation of awareness campaigns (by the end of 2013); (2) procurement of testing equipment for washing machines and training of technical staff at RSS; (3) completion of the technical market assessment (by the end of September 2013); (4) finalization of policy options for local manufacturers (by the end of September 2013), (5) the JSMO database for tracking illegal border declaration; (6) training for the energy sector on tools to harmonize energy planning, among others, will all bring the GEF expenditure close to 100% by the end of the project;
* In the Project Document, only 10% of GEF funds were allocated to project management activities. Analysis carried out for the mid-term review shows that close to 26.2% of project management expenditures have been source from GEF funds to date. This GEF expenditure of US$ 72,415.75 represents 7.5% of total GEF funding. With the forthcoming cash co-financing from GoJ and UNDP in 2014 (see Section 3.5.2 for details), it is expected that GEF-derived project management costs will be within the 10% threshold by the end of the project. Discussions have taken place with the UNDP Country Office[[16]](#footnote-16) during the in-country mission to ensure that its remaining co-financing is used to cover project management costs until the end of the EESL project. This issue is further discussed in the next section.

### 3.5.2 Co-financing

According to the approved Project Document, GoJ, through its ministries and public institutions, was expected to contribute co-financing of US$ 723,615, of which US$ 100,000 would be in the form of cash contributions. The in-kind contributions provided to the EESL project by GoJ to date are deemed to be highly satisfactory, with such contributions taking the form of office space, technical support staff, and office furniture and equipment. It is pointed out that the high level of technical support from JSMO, which was not anticipated in the original Project Document, has exceeded the in-kind contribution of US$ 70,000 that was expected. Because of the reformulation of the project activities (as discussed in Sections 3.1 and 3.2), the role of some institutions, such as Jordan Customs, was also revised, implying a less significant role, and hence co-financing, in project implementation.

In the original Project Document, an additional US$ 500,000 in-kind co-financing was expected from three NGOs (the Jordan Environment Society, the Jordanian Society for Renewable Energy and the Royal Scientific Society, RSS). This contribution has not been made so far. However, both the Jordan Environment Society and the Jordanian Society for Renewable Energy are expected to contribute towards the awareness campaigns to be carried out under Outcome 3 from the beginning of 2014 – i.e. after the awareness and promotional materials have been designed and developed by the end of 2013. Further, RSS will provide laboratory space to host the testing equipment for washing machines. The tendering process for the purchase of testing equipment was launched at the end of August 2013. Given the fact that RSS was not identified as hosting the testing laboratory for washing machines during the design of the project, it is expected that the cumulative in-kind contribution that is expected from the three NGOs will exceed US$ 500,000 by the end of the project. The actual in-kind contributions should be assessed during the terminal evaluation.

More detailed analysis was carried out for cash co-financing using CDRs and financial summary reports that were provided by UNDP. As of August 2013, expenses that have been covered by UNDP and GoJ amounted to US$ 26,007.88 and US$ 12,420.94, respectively. In the case of GoJ, a total of US$ 64,069 (i.e. 64% of pledged cash co-financing) has been transferred in the project account. UNDP stated that it would commit US$ 73,992 for 2014.[[17]](#footnote-17)

The PMU made a request to MoPIC to transfer all the outstanding cash co-financing on 5 March 2013. This prompted MoPIC to carry out a second payment of US$ 42,904 at the end of August 2013. Although there is around 36% of cash co-financing that remains to be effected, this second payment was most welcome, especially given the very difficult financial situation in which the government finds itself. The PMU will continue to engage with MoPIC for the remaining 36% of GoJ co-financing to be paid in 2014.

UNDP has agreed that its share of co-financing will be used to cover remaining project management costs (as per the Project Document), which will certainly keep the GEF contribution towards project management costs between 7.5% and 10% of the total GEF allocation by the end of the project.

It is also noted that the full co-financing from GoJ and UNDP will also be necessary and a pre-requirement for the project to be given an additional no-cost extension by UNDP-GEF Head Office until 31 December 2014.

## 3.6 Flexibility and Adaptive Management

The project is being implemented through a flexible, results-oriented approach, while maintaining the focus on the overall project strategy. There are a number of examples of how the EESL project has been flexible to changing (mostly unanticipated) circumstances:

1. Changes to the project work plan – The most significant change that has taken place in the EESL project is the re-formulation of the overall project work plan at the level of outputs and activities. These changes are summarized in **Annex 7**. This change was prompted by fact that while the EESL project was expected to develop MEPS and labels for the four electrical appliances for Jordan, JSMO and MoIT had meanwhile entered into a bilateral agreement with the EU for the adoption of EU standards and labels. This was done in the context of a Jordan-EU Twinning project (Phase II that started in 2011 and completed in May 2013). This made the results of Outcome 1 of the EESL project redundant, as well as the results of its other outcomes that overlapped with the Twinning Project. While the outcomes of the EESL project remained unchanged, its outputs and results were revised to be aligned with the new national circumstances. The changes were carried out at the end of 2011 and beginning of 2012, and the changes were validated by the PB in April 2012.

Discussions with JSMO revealed that a first phase of the Twinning Project was carried out between 2005 and 2007. This project and its outcomes were not captured in the Project Document. Further, while MoPIC, which carries out coordination of donor-funded projects, is represented on both the PB and PAC, and while JSMO is also a member of the PAC, it is unclear why the development of the Jordan-EU Twinning Project was not made known to the PMU or UNDP. Knowledge of the forthcoming Twinning Project at the IW of the EESL project might have avoided delays by creating more synergies between the Twinning Project and the EESL project at an earlier time. This situation revealed: (1) the need to reinforce coordination within and between institutions and donors/development partners; and (2) while an institution may be represented on a committee (e.g. JSMO on PAC), high-level representation that can deal with both technical and administrative issues is necessary for adequate decision-making to take place. Based on lessons learned, the Deputy Director (as opposed to a technical staff member) now represents JSMO on the PAC.

1. Low level of participation in PAC meetings - A recurring problem that has been highlighted by the PMU and UNDP is the poor level of commitment and participation of institutions in PAC meetings. This has been attributed to the EESL project declining to provide a stipend or ‘sitting’ fee to PAC members.[[18]](#footnote-18) In order to overcome this obstacle, the PM carries out bilateral meetings with members who do not attend the PAC meeting.

## 3.7 UNDP Project Oversight

UNDP is the responsible GEF Agency for the project, and carries out general backstopping and oversight responsibilities, as well as handling the financial accounts. UNDP is represented on the PAC and PB to ensure UNDP’s overall accountability for the project results. PAC and PB decisions are made in accordance with standards that ensure managing for development results, cost-effectiveness, fairness, integrity, transparency and effective international competition. As discussed in Section 3.4, the PB has met only once (in April 2012), which, according to this evaluation, has been one of the shortcomings of the project in terms of quality assurance. It is recommended that UNDP should take the lead to reinstate more regular PB meetings, say at a frequency of every 4 months. This should be possible since the membership of the PB is composed of only 3 institutions. The PB should also discharge its roles and responsibilities as set out in **Annex 8**.

Project monitoring is carried out by the Head of the Environment and Climate Change Unit in the Jordan Country Office and by the UNDP Regional Technical Advisor for Climate Change Mitigation in the Bratislava UNDP-GEF Regional Coordination Unit.

Financial monitoring and evaluation of the EESL project is carried out using the ATLAS tool of UNDP, which generates reports such as the CDR to gauge the level of delivery on all the outcomes of the project (see Section 3.5). One observation from the CDR is that the project funds are managed around five activities, with each activity relating to one outcome of the project. While this was done for 2012 and 2013, the same was not done in 2010 and 2011, and this makes financial analysis for those years difficult (see Section 3.5).

All evidence gathered during the evaluation mission indicates that UNDP is fulfilling its oversight and supervision responsibilities – except for the issue related to PB meetings. UNDP has worked with the project team to ensure comprehensive and timely financial and progress reporting. The project supervision has also benefited from the in-country presence of UNDP at the country level, and its dedicated Environment and Climate Change Unit.

However, one shortcoming has been the shortfall and delay in UNDP providing its pledged share of co-financing, as discussed in Section 3.5.2. Nevertheless, UNDP has committed to provide its outstanding share of co-financing in 2014.

Further, training of PMU staff should have been carried out by UNDP at the start of the project to familiarize them with its rules and regulations, as well as on the use of the results framework as a planning and M&E tool.

### 3.7.1 Mainstreaming other UNDP Priorities

In addition to energy and environment, UNDP covers other priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and gender. This section discusses how or to what extent the EESL project supports the mainstreaming of these other priorities. The first observation is that EE is not a panacea for all the priority areas. In the case of the EESL project, EE is targeted at appliances and equipment that use electricity.

The Project Document and the IR refer to the gender-differentiated role of women in promoting the use of energy efficiency standards and labels. This was related to the proactive behaviour of women in the running and well-being of their households, and their involvement in community-based activities and neighbourhoods. If this is indeed the case, then involving women equally with men in all levels of decision-making positions (in this project, in education, public awareness, capacity development and planning) will enhance the potential contribution they can make in the use of EE appliances. While the awareness campaign for the promotion of EESL is being designed, this gender differentiation should be fully captured. There are no indicators in the M&E framework that allow the gender-differentiated role of women in promoting the use of EESL to be measured, verified and reported.

Since the project does not impact other UNDP priorities, there are no indicators in the M&E framework to assess their mainstreaming.

## 3.8 Risks & Assumptions

The successful implementation of project outcomes and results depends on the validity of risks and assumptions underlying project design and formulation. In fact, the results framework shows the assumptions under which outputs are expected to be achieved. The Project Document also provides an analysis of risks that would confront the implementation of the project, and they have been found to be correct.

There are two risk areas linked to the project objective: socioeconomic stability and stakeholder commitments. The climate change risk is not likely to prevent the objectives being met but may render even more acute the need for the project (e.g. due to increased use of air conditioning).

The socioeconomic stability risk is linked to the region's broad stability, and it has been highlighted by several stakeholders as a key factor that may affect the sustainability of the EESL project (please see Section 5.1.2). Should the economic growth rate slow down, the need for the project and its achievements would be less dramatic as the capacity of households to acquire new appliances or exchange them would be constrained by the stress on their purchasing power. Nevertheless, the rationale for the project is still very relevant given the elevated price of oil price, and forthcoming increases in the residential electricity tariff that will amplify the need to adopt energy efficiency systems.

Another risk that has been identified by the project is the reluctance of local manufacturers to adjust their manufacturing facilities to more stringent EE standards. As discussed in Sections 5.2 and 5.4, the EESL project is carrying out market impact assessments for the introduction of MEPS and developing policy options to define a transition period that would ease the introduction of MEPS in Jordan. As discussed in Section 5.1.1, risks related to: (1) supporting local manufacturers to upgrade production facilities (of electrical appliances); and (2) providing incentives in a stepped fashion to promote the uptake of EE appliances, are not addressed by the EESL project.

## 3.9 Indicators for Monitoring and Evaluation

Typically, the results framework provides the road map by which the project should be implemented. It also provides the basis for M&E since it provides the indicators and sources of verification for measuring achievement of results and outcomes. Hence, adaptive learning is directly tied to the quality of the M&E system.

**Figure 2** shows the indicators that are used in measuring the impact of proposed initiatives, taken from the Project Document. It can be seen that the indicators and means of verification are given at the level of outcomes. However, as shown in **Annex 5**, the results framework is not detailed at the levels of outputs and activities, implying that the EESL project does not have indicators or means of verification to evaluate outputs and activities. This has made the evaluation of progress in Section 4.1 difficult from an objective perspective (i.e. lack of objectively verifiable indicators). The results framework was not reviewed during the Inception Workshop.

The project was expected to deliver 183,000 tCO2e of direct emission reductions during its three-year lifetime. There are several reasons why the calculations were unrealistic, including: (1) use of 2004-2005 baseline data, when the energy efficiency of appliances was lower compared to those in the project start year; (2) replacement levels and new purchases of different types of appliances were assumed and not market-tested; and, most importantly, (3) the unanticipated development of the Jordan-EU Twinning project. The IW would have been an appropriate forum for adjusting the direct global environmental benefit, but that was not carried out. A recommendation is made in this MTE to re-calculate the indirect benefits of CO2 emissions reduction and the cost-effectiveness of the project. As discussed in Section 5.4, the cumulative indirect benefits that can be expected from the project over a period of 15 years will be 2.64 MtCO2e. This compares very well with the post-project indirect benefit of 2.70 MtCO2e that is provided in the Project Document. Further, indirect emission reductions of the order of 22 ktCO2e arising from the forthcoming awareness-raising activities of the project have been calculated for 2014.

Figure 2. Indicators used in measuring impact of proposed initiatives.

|  |  |  |
| --- | --- | --- |
| **Impact to be Monitored** | **Indicators** | **Verification Means** |
| CO2 emissions reduction | Reduction in energy consumption in the household sector | * Survey of power utilities * Survey of Jordan’s Department of Statistics * Electricity bills analysis |
| Increased share of households that use energy efficient appliances | Number of households that use EE appliances | * Survey of Jordan’s Department of Statistics * Survey of enforcement agencies * Project database * Retail sales data |
| Increased use of EE appliance labels and standards by key market players (manufacturers, importers, distributors, retailers) | Number of appliances market players trained in household appliance EE improvements through S&L and applying such skills/knowledge | * Project database * Statistics of the Jordan Chamber of Commerce * Statistics of Jordan’s Ministry of Industry |

# 4. Project Performance and Results (Effectiveness)

## 4.1 Progress Towards Achievement of Expected Objective and Outcomes

### **4.1.1 Development Objective**

**Objective** : Reduce GHG emissions by supporting market transformation towards energy efficient new appliances in Jordan.

Target 1: Increase market share of energy efficient appliances in Jordan by 30% by the end of the project.

*Achievement*: Not applicable for the MTE.

*Rating*: Although this is not applicable for the MTE, the evidence-based approach used in this evaluation shows that this target will very likely not be met because the labels and MEPS that were expected to be developed and introduced by the project will most probably not be in place by the end of the EESL project. This is largely explained by: (1) delays accruing in project delivery, as explained in Section 3; and (2) the need to provide a transition period for implementation of MEPS to allow local manufacturers to revamp their production lines. Any increase in market share of EE appliances during the lifetime of the project would be due to the natural evolution of EE technologies and the awareness-raising activities that the project is designing to change consumer purchasing behaviour and retailer strategies for more EE appliances.

Target 2: Reduction of GHG emissions by 183,000 tonnes of CO2 for the improved appliances put on the market during the three year project duration.

*Achievement*: No direct GHG emission reductions have accrued to date because the labels and MEPS have not been adopted. As discussed in Sections 3.9 and 5.4, 22 ktCO2e of indirect emission reductions are anticipated in 2014, while a cumulative post-project emission reduction of the order of 2.64 MtCO2e is expected over a 15-year period.

*Rating*: Unsatisfactory concerning direct emission reductions, but expected to be highly satisfactory concerning indirect emission reductions. However, it is highlighted that any lack of direct emission reductions should be ascribed to project design and/or the unforeseen impact of the EU-Jordan Twinning Project rather than shortcomings from project implementation. Indirect emission reductions will need to be reviewed during the TE.

### **4.1.2 Outcome 1**: Enhanced capacities in Government and energy agency units for appliance EE policy development, implementation and market surveillance.

Target 3: Set up an inter-ministerial forum for policy dialogue on implementing the National Energy Efficiency Action Plan (NEEAP).

Achievement: The project supported policy dialogue through ad hoc workshops and dialogues, but an inter-ministerial forum has not been set up because the Project Manager mentioned that other institutional arrangements can achieve the same objective. No further details were provided to substantiate this position.

Rating: Target not achieved.

Target 4: Organize workshop for government decision makers outlining the achievements and goals of the project as well as the importance of a long term EE strategy for Jordan.

Achievement: One workshop is planned for Q1 2014 as it is awaiting the result of two major assignments on economic impacts of EE standards and Policy Options for introducing MEPS in Jordan (i.e. see Target 41 and 42). The workshop will target senior government staff.

Rating: On Target for completion in Q1 2014.

Target 5: Use the inter-ministerial forum for updating decision makers on project status twice per year.

Achievement: Not done since inter-ministerial forum has not been established.

Rating: The PM mentioned that the same could be partially achieved under Target 4.

Target 6: Cooperate with JSMO and the EU Twinning Project on reviewing the EU electrical appliance regulations that will be implemented within JSMO.

Achievement: This has been achieved successfully, with the EU Twinning project coming to closure in May 2013. The main outcome of this cooperation has been the review of all relevant EU regulations and the drafting of equivalent standards that are in the process of being approved by JSMO.

Rating: Achieved.

Target 7: Increase NERC’s involvement in the development of EE policies with MEMR through involvement in the committees responsible for policy development.

Achievement : NERC and the project provided comments on the 2012 EE bylaw of which one article was specific to the energy label.

Rating : Ongoing activity but no institutional arrangement exists to date that would allow NERC and MEMR to work closer on the development of EE policies in a sustainable and structured way. The working relatinship between NERC and MEMR can be enhanced by implementing the recommendatino of this MTE whereby the EESL project will seek closer collaboration with RCREEE.

Target 8: Engage PAC members and update them on project progress through quarterly meetings.

Achievement: As discussed in Sections 3.1 and 5.3, this target is an integral part of the project M&E. Eight quarterly meetings have taken place between Quarter 2 – 2011 and Quarter 2 – 2013. Issues related to the commitment of PAC members are discussed in Section 5.3.

Rating: On target.

Target 9: Support JSMO and the EU Twinning Project in the approximation of EU legislation relating to EU EE Directives through NERC’s involvement in the legal committees.

Achievement: The draft Jordanian standards based on the EU EE Directives have been drafted and the technical contents have been approved by the technical and legal committees established in JSMO with contributions from NERC. The EU-equivalent standards are being finalized by JSMO.

Rating: Completed

Target 10: NERC and JSMO, with technical input from the EU Twinning Project, to produce regional publication on Jordan’s experiences, successes and failures in implementing EU regulations in the pursuit of the open market agreement.

Achievement: To be carried out towards the end of the project.

Rating: Not applicable to MTE.

Target 11: NERC to assist MEMR with its efforts to produce a draft of an EE by-law through NERC’s involvement in the consultation process.

Achievement: The EE By-law was finalized and approved in 2012. The EE By-law provides the enabling conditions for Jordan to achieve a target of increased its EE by 20% relative to the end-use of electricity in the 2007 base year.

Rating: Completed.

Target 12: JSMO to produce an assessment of its internal procedures for the rapid adoption, implementation and maintenance of EU EE regulations.

Achievement: This has been completed in a study on policy review in 2011.

Rating: Completed.

Target 13: Harmonize through Training of Trainers (TOT) workshops the EE scenario modeling techniques used by MEMR, ERC and NERC and integrate these techniques within the evaluation process of each organization.

Achievement: This activity is being planned.

Rating: Not applicable to MTE.

Target 14: Assist the MoEnv and NERC in forecasting the project impact on the reduction of GHG emission through the LEAP software.

Achievement: This activity is being planned.

Rating: Not applicable to MTE.

Target 15: Harmonize through TOT workshops the EE project baseline, indicator and benchmarking techniques used by MEMR, ERC and NERC and integrate these techniques within the evaluation process of each organization.

Achievement: This activity is being planned. A recommendation has been made to develop synergies with a similar regional initiative of RCREEE.

Rating: Not applicable to MTE.

Target 16: Harmonize through TOT workshops the EE cost effectiveness evaluation techniques used by MEMR, ERC and NERC and integrate these techniques within the evaluation process of each organization.

Achievement: This activity is being planned. A recommendation has been made to develop synergies with a similar regional initiative of RCREEE.

Rating: Not applicable to MTE.

Target 17: NERC to establish a procedure for the collection of data on appliance sales and stock.

Achievement: Not yet achieved, but it expected to be completed by the end of the project.

Rating: Not applicable to MTE.

Target 18: NERC to establish internally hosted EE home appliance database to allow for continuous analysis of the market.

Achievement: Not yet achieved, but it expected to be completed by the end of the project.

Rating: Not applicable to MTE.

### 4.1.3Outcome 2: Structured verification & enforcement of appliance EE standards and labels.

Target 19: NERC to develop a methodology for the tracking of second-hand products.

Achievement: The methodology has not yet been developed and will be carried out within the remainder of the project.

Rating: Not applicable to the MTE.

Target 20: NERC to implement second-hand product tracking as per the methodology.

Achievement: Not yet carried out.

Rating: Not applicable to the MTE.

Target 21: Assess JSMO’s existing market surveillance structure, capabilities and human resources used for effective market inspection.

Achievement: The Web-based tool is currently being developed.

Rating: Partially completed.

Target 22: JSMO to develop an overall training plan to strengthen the state inspectors’ organizational, technical and operational capacities in compliance checking.

Achievement: This target was achieved under Phase II of the EU Twinning Project, with the collaboration of the EESL project.

Rating : Completed.

Target 23: Improve JSMO market surveillance personnel knowledge of EE regulations.

Achievement: This target was achieved under Phase II of the EU Twinning Project, with the collaboration of the EESL project.

Rating : Completed.

Target 24: JSMO to establish a procedure and database for the minimization of fraudulent compliance declarations at the border.

Achievement: This task will be integrated in the Web-based tool that is currently being developed under Target 21.

Rating: Partially completed.

Target 25: Conduct field training exercises with JSMO’s market surveillance personnel in conjunction with the EU Twinning Project on EE compliance checking.

Achievement: This task has been completed.

Rating: Completed.

Target 26: Identify the required harmonized and non-harmonized standards used in the testing of EE compliance in the appliances included within the project.

Achievement: The harmonized and non-harmonized standards used in EE compliance testing have been completed for the four appliances, and this information has been used to develop the specifications of testing equipment. The tender for testing equipment for washing machines has been launched by the EESL project, while the equipment specifications for refrigerators and air conditioners that were developed by the EESL project have been adopted by USAID for setting up testing laboratories at RSS.

Rating: Completed.

Target 27: Identify potential third-party host organizations capable of implementing quality assurance services for EE compliance.

Achievement: The RSS has been identified as the appropriate host organization for testing laboratories.

Rating: Completed.

Target 28: Develop the capability of the host organization to perform quality test procedures for EE appliances.

Achievement: The training of technical staff at RSS will be carried out once the laboratories are set up.

Rating: Not applicable to MTE.

Target 29: Conduct hands-on training for quality testing staff members to improve the performance and accuracy of performed testing.

Achievement: The training of technical staff at RSS will be carried out once the laboratories are set up.

Rating: Not applicable to MTE.

Target 30: Produce a business development plan for the quality testing organization to position the organization as a regional centre of excellence for the testing of EE in home appliances

Achievement: Not yet completed. This task may also involve collaboration with RCREEE that seeks to harmonize operations relating to RE and EE in the region.

Rating: Not applicable to MTE.

### 4.1.4 Outcome 3: Increased consumers’ and retailers’ awareness and improved marketing of appliance EE standards and labels.

Target 31: At least 50% of consumers and 80% of retailers aware of the trade-off between high purchase cost and lower running cost.

Achievement: Based on the project’s consumer survey, around 22% of the population understands the concept of EE appliances but only 2% are aware of a labelling scheme. This is probably due to the fact that no labelling scheme currently exists in Jordan. It is expected that the level of awareness will increase during the implementation of the awareness campaign that is expected to start at the beginning of 2014. A consultant has already been recruited to develop the communication strategy and materials. Preliminary market research has shown that retailers of global brands are already aware of trade-offs between high purchase cost and lower running cost. There are considerable differences between the household appliances, wherein higher purchase prices can be easily justified for, say, refrigerators (because of the prevalence of energy efficient appliances on the market) but less easily for air conditioners that are expected to cost two times more with increasing EE compared to the current market situation.

Rating: Ongoing activity that is expected to be completed by the end of the project.

Target 32: NERC to have oversight of a national EE survey executed by an external agency providing baseline data for implementing awareness campaign.

Achievement: The baseline data for implementing awareness campaigns has been completed by separating the consumers in Jordan into 3 regions (North, Amman and South) under the oversight of the PMU based at NERC.

Rating: This activity has been completed.

Target 33: NERC to develop awareness materials (leaflets, posters, brochures) in conjunction with an external agency to educate consumers on the benefits of EE appliances.

Achievement: A consultant has been recruited to develop awareness materials based on the results of Target 31. Materials are expected to be ready by the end of 2013.

Rating: On target for completion. However, it is agreed by most stakeholders that any awareness campaign would have been more effective if the EE labels were already adopted.

Target 34: NERC to develop, in conjunction with an external agency, a social media hub and website for engaging consumers using an interactive approach and tracking this engagement through established media metrics.

Achievement: This activity is expected be completed by the end of September 2013.

Rating: Partially completed.

Target 35: NERC to develop informative segments in conjunction with an external agency using the traditional media approach of radio, television and newspapers / written media.

Achievement: This has been linked to Target 32, for which a consultant has already been recruited.

Rating: Ongoing activity.

Target 36: NERC and JSMO to train existing information centre staff in JSMO on delivering information to manufacturers, suppliers, retailers and consumers about the national S&L project, new energy efficiency regulations, date of entry of these regulations, compliance requirements, support opportunities and consequences of non-compliance.

Achievement: This will be an integral part of the forthcoming awareness campaign.

Rating: Not applicable to MTE.

Target 37: NERC to develop, in conjunction with an external agency, a manual for retailers, informing corporate salesmen on basic knowledge and strategy of selling EE appliances.

Achievement: This will be an integral part of the forthcoming awareness campaign.

Rating: Not applicable to MTE.

Target 38: NERC to deliver training to retailer marketing managers using the developed retail manual.

Achievement: This will be an integral part of the forthcoming awareness campaign.

Rating: Not applicable to MTE.

Target 39: NERC to provide information to importers and manufacturers on EU electrical appliances requirements and encourage them to voluntarily adopt the EE label prior to its mandatory enforcement.

Achievement: This will be an integral part of the forthcoming awareness campaign.

Rating: Not applicable to MTE.

### 4.1.5 Outcome 4: Increased capacity of manufacturers to produce and market EE appliances.

Target 40: At least 50% of local manufacturers producing and marketing EE appliances.

Achievement: Due to the costs and complexities involved in upgrading production lines, it is impossible for manufacturers to do so during the lifetime of the project. Given time and financial assistance (i.e. technical market assessments and options for manufacturing processes that will be produced under Targets 41 and 42, respectively), it is highly likely that manufacturers will be fully compliant with EU regulations by 2017-2018.

Rating: Not expected to be realized during the lifetime of the EESL project.

Target 41: NERC to have oversight of a full economic impact analysis publication developed in conjunction with an external agency for the EE label, associated standard and regulations to allow manufacturers and suppliers to understand the long term market transformation process they will endure.

Achievement: Expected to be achieved by the end of September 2013.

Rating: Not yet achieved.

Target 42: NERC to have oversight of a technical analysis developed in conjunction with an external agency detailing the financial and operational impact on the manufacturing process of each of the project’s appliances.

Achievement: Expected to be achieved by the end of September 2013.

Rating: Not yet achieved.

Target 43: Train NERC staff on the technical aspects of upgrading manufacturer production lines to provide a sustainable knowledge base within NERC as an information hub for manufactures wishing to upgrade their facilities.

Achievement: Not yet completed. This will hinge on the outcomes of the market impacts and policy options that will emanate from Targets 39 and 40, respectively.

Rating: Not applicable to the MTE.

Target 44: NERC to deliver individual consultations for local manufacturers regarding the expected costs and technical requirements of upgrading their EE appliances manufacturing facilities.

Achievement: Not yet done. This will hinge on the outcomes of the market impacts and policy options that will emanate from Targets 39 and 40, respectively.

Rating: Not applicable to the MTE.

Target 45: NERC to organize international study tours for manufacturers to observe foreign manufacturing capabilities in the home appliances sector, aiming to implement international best practices in Jordan.

Achievement: A study tour was carried out in 2011 in Egypt. No more study tours are expected during the remainder of the project, principally because of project redesign.

Rating: Partially completed.

Target 46: NERC to approach manufacturers and suppliers to ensure their support and commitment to long-term awareness and marketing efforts encouraging consumers to switch to EE appliances.

Achievement: This will be an integral part of the forthcoming awareness campaign.

Rating: Not applicable to MTE.

Target 47: NERC to assist individual manufacturers and suppliers in identifying and simplifying appliance technical details to allow the information to be communicated to consumers with no technical knowledge of EE.

Achievement: This will be an integral part of the forthcoming awareness campaign.

Rating: Not applicable to MTE.

Target 48: NERC to assist suppliers and manufacturers in including EE as a focus of their own marketing campaigns.

Achievement: This will be an integral part of the forthcoming awareness campaign.

Rating: Not applicable to MTE.

**4.1.6Outcome 5: Project management and M&E support.**

Target 49: Provide technical assistance to NERC in the implementation of project activities.

Achievement: The PMU and PAC provide technical assistance to the NERC.

Rating: Ongoing.

Target 50: Conduct regular monitoring, evaluation and reporting.

Achievement: Quarterly reports (without financials) are produced and reported to the PAC. The PB has met only once since the inception of the project. PIRs are completed on an annual basis. No financial audits have been carried out so far.

Rating: Ongoing but requiring action as per recommendations.

Target 51: Conduct independent mid-term and terminal evaluations.

Achievement: Mid-term evaluation completed.

Rating: Terminal evaluation to be completed at the end of project.

Target 52: Organize the steering committee meetings to share information with key stakeholders.

Achievement: PAC meetings are held regularly on a quarterly basis.

Rating: Ongoing and on track.

## 4.2 Priority issues for the Remainder of Implementation

The preceding discussions have highlighted a number of issues that need to be addressed in the second half of the project. These issues will also inform the recommendations of the MTE.

**Issue 1.** Emissions reduction calculations: Although the project is not expected to deliver direct emission reductions, it will most certainly deliver indirect emissions beyond the lifetime of the project. The baseline for emission reductions in the Project Document was calculated using data for years between 2001 and 2005. Given (i) the delay accruing in implementation; (ii) that more reliable data has been generated by the project through market surveys; and (iii) that there has been a natural evolution in the efficiency of appliances, it is recommended that indirect emission reductions are calculated in order to better capture the global goal of the project, and to calculate the cost of CO2 abatement. Since Jordan now has registered CDM projects, the calculation of emission reductions from avoided electricity use from EE appliances can be obtained using the Grid Emission Factor of the national grid (0.67 tCO2e/MWh). As discussed in Section 5.4, the cumulative indirect benefits that can be expected from the project over a period of 15 years will be 2.64 MtCO2e. This compares very well with the post-project indirect benefit of 2.70 MtCO2e that is provided in the Project Document.

**Issue 2.** Cash co-financing issues: To date, the co-financing from GoJ and UNDP stand at 64% and 26%, respectively, as per the figures provided in the Project Document. Especially because of the low co-financing from UNDP, the project management costs stand at 26.2% of GEF expenditures. This is equivalent to 7.5% of total GEF funds. While there is still a margin of 2.5% of total GEF funds to be used for project management costs, caution must be exercised to better manage the remaining GEF funds.

**Issue 3.** Regional collaboration: The EESL project seeks to achieve several outputs that can be enhanced through closer collaboration with the Regional Centre for Renewable Energy and Energy Efficiency that is based in Cairo, Egypt, and of which Jordan is a member through MEMR. For instance, RCREEE already has a regional project[[19]](#footnote-19) on developing EE indicators that the EESL project can piggy-back on for developing baseline data and benchmarking techniques (Target 15, Section 4.1.2). Through this collaboration, the EESL project will also be better placed to share its lessons learned and best practices to a wider regional audience (Target 10, Section 4.1.2). Since the focal point for RCREEE is MEMR, engagement of the EESL project with RCREEE could be another means for enhancing collaboration between NERC and MEMR.

**Project Management issues**

**Issue 4.** Annual Work Plans: AWPs for 2012 and 2013 were reviewed. Since the PB is expected to approve AWPs, and since it has met only once (in April 2012), it is concluded that there has been little quality assurance provided to AWPs and budgeting processes. The 2013 AWP was not approved by the PB. Also, because of the lack of project documentation and institutional history, the AWPs for 2010 and 2011 were not made available during this evaluation.

**Issue 5.** Use of results framework: The results framework of the EESL project is of a poor quality that does not allow the effective and efficient scheduling, implementation and M&E of outputs. The results framework is detailed only at the level of outcomes while completely leaving out the outputs. There are neither baselines nor indicators for monitoring and evaluating results. The redesign of the results framework has reviewed and updated the outputs and activities of the project without providing any baselines and indicators for measuring performance (please see **Annexes 6** and **7**).

There is evidence that the logical framework is not used to its full capacity as the main tool to implement the project. In fact, most stakeholders of the project were not aware of the logical framework. The reasons are most probably a combination of: (1) lack of awareness and experience in managing such a project, especially UNDP/GoJ methodologies; and (2) lack of knowledge of GEF and UNDP operational rules. It is important that all stakeholders of the EESL project be trained to make better use of the results framework so that the quality of implementation can be enhanced going forward.

**Issue 6.** Project completion date: Looking at the progress made towards completion of objectives and outcomes of the project, it is clear that the EESL project cannot be completed successfully by the expected due date of 1 June 2014. There are two critical elements of the project that will need more time for their impacts to be fully revealed. The first relates to the commissioning of the testing laboratory for washing machines and training of technical staff to operate the equipment. This laboratory is a critical asset for the subsequent enforcement of MEPS. Secondly, the awareness campaigns for end-users and retailers is not anticipated to start before January 2014, in which case a period of 4-5 months will certainly not be sufficient to obtain the full impacts of awareness raising.

# 5. Key GEF Performance Parameters

## 5.1 Sustainability

Based on the analysis of the four sustainability components discussed below, the **overall sustainability** of the project has been rated ***moderately likely***.

### 5.1.1 Financial Risks to Sustainability

The financial risks to sustainability of introducing mandatory EESL in Jordan are real. While the EESL project will provide assistance to local manufacturers in the form of assessments of the technological upgrading and energy efficiency improvement potential and marketing support, it will not provide any financial support. Discussions with the PMU and JSMO have revealed that financial support for restructuring local manufacturing remains an outstanding issue.

Typically, a suitable performance-based mechanism for channelling resources and incentives to project participants is an essential element during the initial period of EE appliance market development. While this may not be an issue for EE refrigerators and fridges that are already affordable in Jordan, incentives would certainly support the market penetration of efficient air conditioners. Financial incentives are not included in the EESL project.

The financial risks to the sustainability of adoption of MEPS and transformation of the market for EE electrical appliances is expected to be mitigated in part by the announced increase in the residential electricity tariff by 15% in early 2014.[[20]](#footnote-20) During a meeting with the Director of the National Building Council, it was revealed that an additional increase in electricity tariff is expected in 2015.[[21]](#footnote-21) The increase in electricity tariff is an effectivedriver for the behavioural shift in buying practices towards energy efficient appliances.

### 5.1.2 Socio-political Risks to Sustainability

While most stakeholders were adamant that the EESL project was extremely relevant given the current energy security challenges of Jordan, many showed concern that MEPS and labels would be delayed or, when adopted, would not be enforced for socio-political reasons. This issue is not typical to Jordan alone, but is symptomatic of the broader socio-political circumstances prevalent in Middle Eastern countries. For instance, the influx of Syrian refugees into the northern parts of Jordan may distract government attention and resources. Options to mitigate the socio-political risks would be to provide: (1) a transition period for the adoption of MEPS and labels (which would also provide the time needed to restructure local manufacturing enterprises); and/or (2) financial and economic incentives in a stepped manner (i.e. to gradually phase out over time).

### 5.1.3 Institutional Framework and Governance Risks to Sustainability

The institutional framework and governance risks are minimized by virtue of the detailed roadmap that has been established under the EU-Jordan Twinning Project for the conclusion of the Agreement on Conformity Assessment and Acceptance (ACAA) of industrial products. The EESL project has supported the implementation of Phase II of the roadmap since the end of 2011. While Phase II of the EU-Jordan Twinning Project came to an end in May 2013, the EESL project will continue to provide technical support to JSMO to further consolidate its institutional capacity and to minimize governance risks. The two main ways in which the EESL project is minimizing institutional and governance risks are:

1. Supporting the adoption of European harmonized standards (EN) for electrical appliances: the main risk concerning the adoption of MEPS is the economic and financial impacts on local manufacturers. Through an analysis of policy options for dealing with this issue, the EESL project will propose a transition period for the adoption of mandatory MEPS in Jordan that will be used by JSMO and MoIT to negotiate the terms of the ACAA of industrial products; and
2. Establishing a market surveillance system and procedures at JSMO.

### 5.1.4 Environmental Risks to Sustainability

The environmental risks associated with the uptake of MEPS and labels are very low. First, EE improvements will result in the reduction of GHG emissions. Further, by avoiding the combustion of fossil fuels to generate electricity other gaseous emissions and particulate matter will be reduced.

Second, the adoption of MEPS in Jordan will also be accompanied by the adoption of the EU Directive 2009/125/EC for establishing a framework for the setting of eco-design requirements for energy-related products**.[[22]](#footnote-22)** In the interest of sustainable development, continuous improvement in the overall environmental impact of those products is encouraged by this Directive, notably by identifying the major sources of negative environmental impacts and avoiding transfer of pollution, when this improvement does not entail excessive costs.

One issue that has to be considered when the scaling up of EE activities in Jordan will include EE lighting is the safe disposal of mercury in used CFLs. In this case, a system of recovery of used CFLs and their safe disposal will need to be adopted. The replacement of incandescent lamps by CFLs in the residential sector is a project in the National Energy Efficiency Action Plan (NEEAP). The NEEAP states that “a mechanism for collecting the replaced incandescent lamps will be prepared and arranged prior to the distribution of lamps to ensure that all CFLs will go to the right place”.[[23]](#footnote-23) This statement may be interpreted as meaning the necessary steps will be taken to dispose of the CFLs in an environmentally-sound manner.

## 5.2 Catalytic Role: Replication and Scaling-up

Although it is too early to see the catalytic role of the EESL project, discussions with key stakeholders have shown that the time for EE in Jordan is ripe, implying there are many avenues available for replication and scaling-up.

Successful implementation of this program for air conditioners, refrigerators, freezers and washing machines will serve as a model for other priority consumer appliances such as lighting products, dishwashers, dryers, heat-pumps, pumps, hot water systems, electric irons, televisions and computers, among others. Several of these appliances are already covered under the ACAA.

The key elements of the replication strategy that is being developed by the EESL project are:

* The project will carry out a lessons-learned exercise, as well as an end-of-project impact study, that will help to identify what works, what does not and why. Lessons will be extracted from that experience and, through a comprehensive communication and outreach plan, will be disseminated both within Jordan and in the region;
* Stakeholders from industry, retailers and consumer organizations are already involved in the regulatory process regarding the implementation of the roadmap for the conclusion of the ACAA, which will be the modality under which Jordan will adopt EU MEPS and labels for electrical appliances; and
* A conformity assessment and surveillance system is being put in place at JSMO to maintain the credibility of new labels and standards adopted by the Jordanian market. The system is compatible with the requirements of the EU, and it will cover priority sectors such as toys and gas appliances in addition to electrical products. The market surveillance system will also cover electrical appliances such as electrical irons and microwave ovens.

## 5.3 Monitoring and Evaluation

The project results are regularly reported to UNDP and GEF on a quarterly and annual basis [UNDP Quarterly Progress Reports (QPRs) and Annual Progress Reports (APRs), and GEF Quarterly Operational Reports (QORs) and Project Implementation Reviews (PIRs)].

A Project Board (PB), which was expected to meet once every four months or when the Project Manager found it necessary, has been established to oversee the implementation of the project. The PB consists of representatives from the MoPIC, UNDP and NERC, and it is responsible for making, on a consensus basis, management decisions for the project when guidance is required by the Project Manager. The evidence provided by the PMU shows that the PB has met only once in April 2012. The main decision taken at that PB meeting was the validation of the changes in the results framework (i.e. outputs and activities of the project).

The PM mentioned that the PB had not met more regularly since 2012 because the project was waiting for tangible deliverables that are now being finalized. It is anticipated that a PB meeting will be held in Quarter 4 2013 to apprise the PB of progress made since April 2012, including the recommendations of the MTE. Since the PB is mandated to approve Annual Work Plans and budgets, as well as progress reports on project achievements (please see **Annex 8** for the TOR of the PB), it can be inferred that such due diligence has been lacking in the EESL project. In this respect, the oversight role that should have been provided by the PB to ensure quality M&E has been found lacking.

The PAC that provides advisory services to the project has met eight times between Quarter 2 – 2011 and Quarter 2 – 2013 at a frequency of 4 times per year. The IR shows that the first PAC meeting took place in September 2010. A recurring problem that has been highlighted by the PMU and UNDP is the poor level of commitment and participation of institutions in PAC meetings. This has been attributed to the EESL project declining to provide a stipend or ‘sitting’ fee to PAC members.[[24]](#footnote-24) As discussed earlier, the PM carries out bilateral meetings with members who do not attend the PAC meeting in order to overcome this obstacle.

This evaluation has shown that monitoring and evaluation has been partially implemented according to the GEF/UNDP practice and in line with the monitoring and evaluation plan described in the Project Document.

## 5.4 Project Impacts and Global Environmental Benefits

Given that the project has suffered from significant delays in implementation, it is too early to gauge its tangible impacts in terms of transforming the market for EE equipment and appliances. Nevertheless, it should be noted that the ACAA will not be implemented during the lifetime of the EESL project – i.e. MEPS and labels will not be mandated or enforced before the closure of the project. For instance, the policy options study, which is further discussed below, shows that the transition period for adopting the EN standards and/or eco-design would take place in 2017 or 2018. Further, it should be noted that formal negotiations between MoIT and the EU for full implementation of the ACAA will only start in 2014.

Similarly, it is not anticipated that direct global environmental benefits of the project in terms of CO2 emission reductions will be achieved during the lifetime of the EESL project. However, the project will certainly deliver indirect GHG emission reductions once the MEPS and labels have been adopted. The mid-term evaluator has proposed to the PMU that the indirect GHG emissions should be calculated based on: (1) an updated market assessment of appliances that is being finalised; and (2) the more concrete timeline for the adoption of MEPS based on the policy options (also being finalised). The mid-term evaluator has reviewed the GHG emission calculation methodology with the Project Manager and cumulative indirect GHG emission reductions accruing over a 15-year (post-project) period have been calculated as 2.64 MtCO2e. The calculations have included assumptions about: the technology improvement factor; the emission factor; the percentages of imported and locally manufactured appliances; the baseline energy efficiency of imported and locally manufactured appliances; and the market size of different appliances. For air-conditioners, additional assumptions were made regarding their use for heating and the relative usage rates during winter and summer.

The grid emission factor has been taken as 0.67 tCO2e/MWh which was taken from the database of national grid emission factors of the International Global Environment Strategies (IGES) based on registered Clean Development Mechanism (CDM) projects. The value is for the latest registered CDM project.[[25]](#footnote-25)

The value of indirect GHG emission reductions calculated by the Project Manager agrees well with the value of 2.70 MtCO2e that was calculated during the project design – i.e. given in the Project Document. Using the updated value, the cost effectiveness of indirect emission reductions over a 15-year period is 0.37 US$/tCO2e abated. These calculations demonstrate the cost effectiveness of EE measures in curbing the emission of GHGs in pursuit of stabilizing the global climate system. The global environmental benefits will need to be evaluated in the TE of the project.

While it is not possible to carry out an exhaustive analysis of project impacts during the MTE, there is evidence that the EESL project will have following legacies in transforming the market for EE appliances in Jordan:

* Impact Assessment of Potential Policy Options for Energy Efficiency Standards and Labeling in Jordan - Several policy options are being assessed by the project, and the results of the impact assessment of these policy options will allow the selection of the most suitable legislative requirements in the context of energy efficiency standards and labelling regulation in Jordan. In particular, it will recommend transition periods for mandating MEPS and eco-design standards. Discussions with JSMO have revealed that the results of the policy options study will be a critical input in deciding the entry into force of MEPS in Jordan.[[26]](#footnote-26) Further, a study on the technical market assessment of the impacts of EESL on local manufacturers seems to suggest that a transition period between 2-5 years would be required for restructuring local appliance manufacturing to meet MEPS;[[27]](#footnote-27)
* The EESL project is supporting JSMO to set up an online market surveillance tool that will be used to enforce MEPS once adopted;
* An important link in enforcing MEPS is to have the capacity to carry out conformity tests. To achieve this, Jordan needs to develop its capacity in third-party, accredited testing laboratories. The EESL project is on track to set up such a testing facility for washing machines at RSS; and
* Survey of Consumer Behaviour and Preferences Regarding Energy Efficiency Home Appliances:Market surveys have shown that the level of awareness of the benefits of EE appliances in Jordan is quite low (less than 22%).[[28]](#footnote-28) As per outcome 3 of the EESL project, increasing the level of awareness of EE appliances is a critical factor in market transformation. Based on the results of the market assessment, awareness campaigns using both orthodox media (e.g. printed media, TV and website – **Figure 3**) and social marketing are being developed (see **Figure 4**). The awareness campaigns, which will be launched early in 2014, are expected to increase awareness of the benefits of EE electrical appliances. The awareness campaigns will contribute to changes in the buying behavior of consumers towards more EE appliances that will in turn result in indirect GHG emission reductions that have been estimated as 21,800 tCO2e in 2014.

**Figure 3.** Screenshot of the homepage of the project website under development.

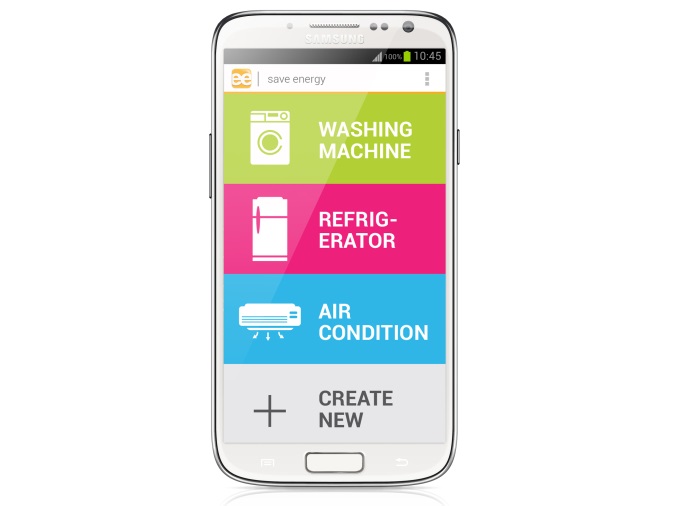


Figure 4. Illustration of mobile phone applications to promote EE appliances.

# 6. Main Lessons Learned and Recommendations

## 6.1 Lessons from the Experience of the Project

There are a few key lessons that have been derived from the EESL project and which should be captured as best practices.

* Adaptive management: There is evidence that the project has been run in a flexible and adaptive manner. The outputs of the EESL project were reformulated late in 2011 when it became known to the PMU and project stakeholders that JSMO would adopt EE regulations and standards of the EU;
* Usefulness of the results framework: While the project has been adaptive in reformulating the results framework, it has not fully capitalized on its usefulness as a tool for the proper implementation and monitoring and evaluation of the project. The main lesson learned is the need to also cover the outputs of the project in the results framework;
* Catalyst: The EESL project is expected to play a catalytic role to promote EE in Jordan beyond its lifetime by setting up an EE testing laboratory for washing machines, supporting JSMO to set up an online surveillance tool, providing alternative policy options for supporting local manufacturers in upgrading their production facilities, and by increasing the awareness of end-users and retailers of appliances.

## 6.2 Recommendations for the Remaining Implementation Period

The recommendations are proposed to address the issues identified in Section 4.2. The responsible parties to act on the recommendations are given in brackets.

**Recommendation 1:** The mid-term evaluator has discussed the methodology to calculate the cumulative indirect CO2 emission reductions that will accrue from the enforcement of MEPS in Jordan using update data and new assumptions. The Grid Emission Factor for Jordan will be used in the calculations. The validity of the calculations should be revised during the Terminal Evaluation of the EESL project. [PMU and Consultant]

**Recommendation 2:** UNDP and GoJ have to contribute their share of cash co-financing to the project. Given the current economic and political context, GoJ should contribute at least partially its pledged cash co-financing, while UNDP should commit its full share of co-financing to cover project management costs. This is important for two reasons: (1) to ensure that there is sufficient funding for project management expenses until the end of the project (this will become even more critical if a further extension until the end of 31 December 2014 is granted). The UNDP Country Director has made arrangements to commit outstanding UNDP cash co-financing to the project in 2014; and (2) so that GEF funding that is used to cover project management costs is kept to within 10% of total GEF funds. [UNDP and GoJ]

**Recommendation 3:** It is strongly recommended that the PB should meet more regularly (at least every 3-4 months) until the closure of the project. [PMU, UNDP, MoPIC and NERC]

**Recommendation 4:** The management team missed two opportunities to modify the results framework. The two opportunities were: (1) the inception workshop; and (2) late in 2011 when the results framework was reformulated at the level of outputs and validated by the Project Board. While developing the next AWP, it would be useful for the management team to address this issue. It is also a shortcoming that should not be repeated in future project development. [UNDP and PMU]

**Recommendation 5:** The PMU should seek to collaborate with RCREEE through MEMR to enhance its delivery. As discussed in Section 2.2.3, RCREEE will be a valuable stakeholder of the EESL project. For instance, RCREEE already has a regional project on developing EE indicators that the EESL project can piggy-back on for developing baseline data and benchmarking techniques (Target 15, Section 4.1.2). Further, the EESL project will also be better placed to share its lessons learned and best practices to a wider regional audience (Target 10, Section 4.1.2). [PMU]

**Recommendation 6:** It is recommended that the project should be extended to 31 December 2014 in order for the project to maximize its impacts. There need not be an increase in funding as long as promised cash co-financing is obtained. [UNDP, MoPIC]

In order for the project to maximize its impacts in its remaining lifetime, it will be imperative to allocate scarce project resources to targeted activities. **Table 9** summarizes the key activities towards which project funds should be allocated. Justifications for the selected priority actions are given based on their expected impacts both during and beyond the lifetime of the project. In order to provide better guidance for the development of future AWP, each priority action has been reconciled with the activities given in the results framework of the project given in **Annexes 6** and **7**. The priority actions identified in **Table 9** are high-level actions that correspond to activities under one or more outcomes of the project. This approach has been selected in order to highlight the close synergies between the different outcomes of the project. This approach may also facilitate the development of Terms of References (TORs) or Requests for Proposals (RFPs) in order to maximize the impacts of the project.

**Table 9.** Priority actions and their impacts.

| Priority action | Corresponding activities in results framework | Expected impacts |
| --- | --- | --- |
| Development of awareness materials and implementation of awareness campaigns | 3.1.2 3.1.4; 3.2.2 – 3.2.3; 4.3.1 – 4.3.3 | Based on completed sociological field research, the development of awareness materials is currently being carried out. All forms of awareness materials proposed by the project should be completed by the end of 2013 so that the awareness campaigns can be implemented at the beginning of 2014. It is known in marketing theory that goods and services are purchased only when they form part of the awareness set of the consumer. The market penetration of EE appliances, therefore, requires that such products from part of the awareness of purchasers. The combination of conventional and innovative social marketing techniques will help shift the consumer purchasing behavior towards more energy efficient appliances. The awareness campaigns will also equip retailers and manufacturers to better market the benefits of EE appliances. |
| Completion of the technical market assessment and finalization of policy options for local manufacturers to restructure their manufacturing facilities to be compliant with the introduction of MEPS | 3.2.4; 4.1.1 – 4.1.2; 4.2.1 – 4.2.3 | A better understanding of the macro-economic benefits of EE appliances brings several benefits, including, among others: (1) more evidence of their socio-economic and environmental benefits that can be used to promote their marketing; and (2) assist policy makers to design cost-effective fiscal and economic instruments to incentivize consumers to purchase EE appliances. Although the second benefit does not form part of the imminent objective of the project, the results to the market assessment will pave the way for more policy support for EE appliances in the future.  The policy options concerning the implementation of MEPS and labels in Jordan is a crucial outcome of the project that will be decisive during the negotiations between GoJ and the EU for introducing EU-harmonized standards in Jordan. A central outcome of the policy options study will be a recommendation on the transition time that will be required to allow local manufacturers to upgrade their facilities to produce higher efficiency appliances. This is a critical issue for protecting local manufacturing and jobs at a crucial juncture when the export market for locally manufactured appliances has virtually collapsed because of ongoing political instability in countries neighbouring Jordan. |
| Procurement of testing equipment for washing machines and training of technical staff at RSS | 2.3.3 – 2.3.5 | Enforcement is a critical element of any successful implementation of MEPS and labels, and for which the capacity to carry out accredited performance tests is a requirement. By developing accredited laboratories (as more are expected through USAID financial support) and skilled technicians, Jordan will also be able to position itself as a regional centre of excellence for carrying out energy efficiency tests on home appliances. |
| Product surveillance database for tracking illegal border declaration and second-hand products | 2.1.1 – 2.1.5; 2.2.1 – 2.2.2 | Enforcement is a critical element of any successful implementation of MEPS and labels. There are several elements that are necessary in order to facilitate enforcement. While the capacity for carrying out accredited performance tests is one such requirement, the ability to track the movement of illegal and/or sub-standard second-hand appliances is another important requirement. Developing a product surveillance database and associated systems and procedures, and including human and institutional capacity building, will allow the latter to be achieved. Once developed, the capacity of the database to track additional products may be increased in the future, thereby providing sustainability beyond the lifetime of the project. |
| Training for the energy sector on tools to harmonize energy planning | 1.4.2; 1.4.3; 1.4.5 | Energy policy analysis, including the impacts of alternative policy scenarios on the reduction of GHG emissions, are necessary for charting out the low-carbon development of Jordan. Consequently, the project should endeavour to harmonize the use of integrated energy modelling tools across key institutions (NERC, ERC and MEMR) and to enhance human skills in using the modeling tools through appropriate capacity building. |
| Publication and wide dissemination of lessons learned | 1.3.2 | This will ensure replication of the best practices arising from the project by capitalizing on its lessons learned, including avoiding pitfalls. For greater impact, the lessons learned should be disseminated beyond the borders of Jordan, and using the RCREEE network may prove to be a useful strategy in this regard. A regional dissemination strategy of lessons learned will also support the objective of the project to position NERC and RSS as regional centres of excellence for the testing of EE in home appliances. |
| Monitoring systems put into place | 1.4.4; 1.5.1;1.5.2 | In general, monitoring systems are necessary to track performance and to carry out adaptive management – i.e. to make necessary changes when expected outcomes are not achieved. Monitoring systems also allow the efficiency of achieving planned objectives and targets to be assessed. Therefore, the project should strive to establish EE project baselines, indicators and benchmarking techniques, as well as databases for monitoring the evolution of the markets for EE appliances. Well-designed monitoring systems will be a determining element of the sustainability of the project beyond its lifetime. |

## 6.3 Mid-Term Evaluation Ratings

| **Project Component or Objective** | **Rating** | **Qualitative Summary** |
| --- | --- | --- |
| **Project Formulation** |  |  |
| **Relevance** | HS | Relevant at national and regional levels and GEF levels – the project is squarely aligned with the energy priorities of Jordan, as well as the climate change mitigation priorities of GEF. |
| Conceptualization / design | MU | The project document meets all the relevant minimum standards, and the project strategy is appropriate for the context in which the project is operating. The problem statement was well articulated and based on baseline studies. However, the latter were only indicative due to lack of solid statistics. The design and conceptualization failed to identify Phase I of the Jordan – EU Twinning Project that was implemented between 2005 and 2007, and which led to a Phase II of the Twinning Project that had several overlaps with the EESL project. With hindsight, it is concluded that the direct global environmental benefits were overestimated. Updated calculations are recommended. |
| Stakeholder participation | MS | This has been a strength of the project. The project concept originated indigenously from NERC, and the project development phase included inputs from relevant national institutions and organizations. Relevant regional institutions were also included at the project formulation and early in the implementation phase. |
| **Project Implementation** |  |  |
| Implementation Approach (Efficiency) | MS | EESL is lagging behind in terms of delivery but it is on track to deliver on its main outcomes. It is important for the PB to play a more decisive role in providing quality assurance in terms of budgeting and implementation of remaining outputs and activities. |
| The use of the logical framework | MS | The project team needs to make better use of the results framework as an implementation and M&E tool as well. |
| Adaptive management | S | Project implementation is flexible and adaptive, to respond to changing conditions and risks, and to take advantage of opportunities for partnerships and actions that support the overall project objective. The main example of adaptive management and flexibility is the reformulation of the project results (outputs and activities) to accommodate the objectives of GoJ regarding the forthcoming ACAA. |
| Operational relationships between the institutions involved | S | The broad participatory and consultative mechanisms at the PAC (and bilateral meetings) have ensured adequate operational relationships between stakeholders. As mentioned above, all key stakeholders have a high buy-in the project, albeit those who will play an active role in awareness raising are yet to be engaged by the project. |
| Financial management | MU | Due to initial delays the project has disbursed only 28.6% of GEF funds, of which 22.6% have been used to cover project management costs. The financial situation is expected to recover significantly in 2014, and project management costs are expected to be contained to 10% of total GEF funds with UNDP committed to contribute cash co-financing hereon to cover these expenses. |
| **Monitoring and Evaluation** | MS | Overall, M&E is considered moderately satisfactory, though the log-frame indicator design, a critical element, could have been put to better use. For instance, there are no indicators and means of verification for outputs and activities in the results framework. |
| Monitoring and evaluation design | MS | The main M&E activities planned meet GEF and UNDP minimum standards, and conform to UNDP-GEF standard practices. The project log-frame indicators and targets only moderately conform to SMART criteria. |
| Monitoring and evaluation implementation | MS | The situation with respect to project auditing should be clarified and documented in PB meeting minutes. The PB should meet more regularly to provide better quality assurance for more effective and efficient project delivery. |
| Monitoring and evaluation budgeting | MS | Resources necessary for project M&E activities are fully budgeted at adequate levels. |
| **Stakeholder Participation** | S | Good stakeholder participation has been an important element of the project. Moving forward, it will be important to have better linkages with RCREEE. Stakeholder involvement can be increased through enhanced awareness and capacity building. |
| Production and dissemination of information | S | The project has not yet received a lot of visibility. Hence, sensitization needs to be accelerated in the second half of the project. |
| Establishment of partnerships | S | Overall, the project implementation approach represents an important partnership between key government institutions. Beyond this, the project is seeking to create private sector partnerships, but this is still in the developmental stages. The project has also developed key partnerships with USAID and the EU-Jordan Twinning project. |
| Involvement and support of governmental institutions | S | NERC is a critical stakeholder, and is fully involved in the project. NERC is Chair of both the PAC and PB. Judging from the minutes of PAC meetings, it is clear that other government institutions are well engaged with the project. |
| **Project Results** |  |  |
| **Progress Toward Achievement of Objective and Outcomes (Effectiveness)** | S | To date, most of the significant outputs (i.e. those that are expected to have impacts beyond the lifetime of the project) of the project remain to be completed. However, the foundation work has been completed that puts the project on track to reach the expected results by its end-date, albeit with an extension in end-date to 31 December 2014. |
| **Objective:** Reduce GHG emissions by supporting a market transformation towards energy efficient new appliances in Jordan | MS  To verified by TE | It is highly unlikely that any direct GHG emission reduction will take place during the lifetime of the project.  Cumulative indirect GHG emission reductions have been calculated as 2.64 MtCO2e over a 15-year post-project duration; this compares very well with the value of 2.70 MtCO2e that was expected during the design stage and is stated in the Project Document. |
| **Outcome 1:** Capacity enhancement in Government and energy agency units for appliance EE policy development, implementation and market surveillance | S | The project is on track to enhance the capacity of JSMO to carry our market surveillance of EE appliances, especially fraudulent imports and locally manufactured products. The project is supporting JSMO to develop an innovative Web-based tool and database to harmonize its surveillance capacities that will be compatible with EU norms. |
| **Outcome 2:** Structuring of verification & enforcement of appliance EE labels and standards | S | The project has developed the laboratory and equipment specifications for testing EE appliances. The RSS has taken this output forward and successfully approached another donor (USAID) to fund the laboratory equipment for air conditioners, and USAID is also anticipating funding equipment for testing refrigerators and freezers. USAID adopted the specifications developed by the EESL project without any changes. Concurrently, the EESL project will fund the testing laboratory for washing machines. The capacity to carry out accredited tests of the minimum energy performance standards of EE appliances is an integral component of ensuring that electrical appliances meet the regulatory EE standards – i.e. to ensure conformity. |
| **Outcome 3:** Consumer and retailer awareness-raising and improved marketing of appliance EE standards and labels | S | A survey of 1,000 households distributed across the country has been completed. It has revealed the low level of awareness of EE among the population, especially outside Amman. The study has also identified income, education, gender and others as factors associated with the usage behaviour of household appliances. The results of this survey are now being used to develop the communication campaign to enhance the awareness of EE appliances by customers and retailers. |
| **Outcome 4:**  Improvement of manufacturers’ capacity to produce and market EE appliances | S | Two very important studies that will be instrumental in informing the timeline for introducing MEPS in Jordan are being finalized. The first has investigated the macro-economic impacts of introducing standards and regulations in order to understand the long term market transformation. The second study has assessed several policy options for supporting local manufacturers to adjust their manufacturing facilities to meet the requirements of MEPS. The two studies will be used by JSMO and the Ministry of Industry and Trade to establish a timeline for the introduction and enforcement of MEPS on household appliances, while taking into account the special needs of local manufacturers. |
| **Outcome 5:** Project Management | MS | It has been found that while the PAC is delivering technical advisory input to the project, there have been shortcomings in terms of quality assurance provided by the PB. The performance of the Project Manager is commended, especially relating to the redesign of the results framework that has helped to redirect the project amidst a combination of poor project design and unforeseen circumstances. |
| **Sustainability** | ML |  |
| Financial sustainability | MU | While the EESL project will provide assistance to local manufacturers in the form of assessments of the technological upgrading and energy efficiency improvement potential and marketing support, it will not provide any financial support. The project does not seek to provide incentives to end-users to change their behaviour. These gaps in project coverage will, however, be partially mitigated by forthcoming increases in electricity tariffs. |
| Socio-political sustainability | MU | This has been cited as the main risk to sustainability by stakeholders given the prevailing socioeconomic and political uncertainties prevailing in Jordan (and more broadly in the Middle East region). |
| Institutional and governance sustainability | L | The EESL project (together with the Twinning Project) has provided the enabling conditions for institutional and governance to operate successfully. This is particular true in terms of institutional capacity for carrying out accredited conformity testing in Jordan, as well as to carry out market surveillance (by JSMO). |
| Environmental sustainability | L | There are no risks to environmental sustainability. In fact, a changing climate in Jordan is expected to increase the use of air conditioning that will make the EESL project even more pertinent to reducing GHG emissions. |
| **Progress toward Overall Project Achievement and Impact** | **MS** |  |

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# Annex 1 – TOR for Mid-Term Evaluation

* 1. **BACKGROUND & CONTEXT**

Please refer to Project Document pages 6-13 (Section 1.1 – 1.3)

<http://www.undp-jordan.org/uploads/projects/pd_1282122209.pdf>

**PROJECT GOAL, OBJECTIVES, OUTCOMES and OUTPUTS:**

Please refer to Project Document pages 13-15 (Section 1.4) and pages 28-36 (Section 2.5)

Note that the activities have been modified from the Project Document and the updated list is found at

<https://skydrive.live.com/redir?resid=B75380CFAEC19BBD!890&authkey=!AI84km4K6S9doqQ>

1. **Scope of work**

In the context outlined above, UNDP seeks the recruitment of an international consultant to support the achievement of the following project mid-term evaluation objectives:

Conduct a mid-term evaluation of the Energy Efficiency Project in line with internal procedures of UNDP and GEF guidelines. The scope of Objective One should cover the following:

The scope of the evaluation will cover all activities undertaken in the framework of the project. The evaluator will compare planned outputs of the project to actual outputs and assess the actual results to determine their contribution to the attainment of the project objectives. He/she will also attempt to evaluate the efficiency of project management, including the delivery of outputs and activities in terms of quality, quantity, timeliness and cost efficiency as well as features related to the process involved in achieving those outputs and the impacts of the project. The evaluation will also address the underlying causes and issues contributing to targets not adequately achieved.

The key product expected from the mid-term evaluation is a comprehensive analytical report in English that should, at least, follow the requirements as indicated in Annex E.

The terminal evaluation report will be a stand-alone document that substantiates its recommendations and conclusions. The report will have to provide convincing evidence to support its findings/ratings.

The report together with its annexes shall be presented in electronic form in MS Word format.

The consultant is expected to follow a participatory and consultative approach ensuring engagement with the project team, project partners and key stakeholders.

The consultant is expected to use project data, third-party data and interviews as a means of collecting data on the performance and success of the project. Questionnaires prepared by the consultant can be distributed to national project partners, facilitated by participating implementing agencies.

1. **METHODOLOGY**

An overall approach and method[[29]](#footnote-29) for conducting project evaluations of UNDP supported and GEF financed projects has developed over time. The evaluator is expected to frame the evaluation effort using the criteria of **relevance, effectiveness, efficiency, sustainability, and impact,** as defined and explained in the UNDP Guidance for Conducting Evaluations of UNDP-supported, GEF-financed Projects. A set of questions covering each of these criteria have been drafted and are included with this TOR ([Annex A](#_TOR_Annex_C:)). The evaluator is expected to amend, complete and include it as an annex to the final report.

The evaluation must provide evidence‐based information that is credible, reliable and useful. The evaluator is expected to follow a participatory and consultative approach ensuring close engagement with government counterparts, in particular the National Energy Research Centre and other stakeholder agencies, the GEF OFP, the UNDP Country Office, the project team, the UNDP GEF Technical Adviser based in the region and key stakeholders.

The evaluator will review all relevant sources of information, such as the project document, project reports – including Annual APR/PIR, project budget revisions, progress reports, GEF focal area tracking tools, project files, national strategic and legal documents, etc. – and any other materials that the evaluator considers useful for this evidence-based assessment.

**Evaluation criteria and ratings**

An assessment of project performance will be carried out, based against expectations set out in the Project Logical Framework/Results Framework (see [Annex A](#_TOR_Annex_A:)), which provides performance and impact indicators for project implementation along with their corresponding means of verification. The evaluation will at a minimum cover the criteria of: **relevance, effectiveness, efficiency, sustainability and impact.** The obligatory rating scales are included in [Annex C](#_TOR_Annex_D:).

|  |  |  |  |
| --- | --- | --- | --- |
| **Evaluation Ratings:** | | | |
| **1. Monitoring and Evaluation** | ***rating*** | **2. IA& EA Execution** | ***rating*** |
| M&E design at entry |  | Quality of UNDP Implementation |  |
| M&E Plan Implementation |  | Quality of Execution - Executing Agency |  |
| Overall quality of M&E |  | Overall quality of Implementation / Execution |  |
| **3. Assessment of Outcomes** | **rating** | **4. Sustainability** | **rating** |
| Relevance |  | Financial resources: |  |
| Effectiveness |  | Socio-political: |  |
| Efficiency |  | Institutional framework and governance: |  |
| Overall Project Outcome Rating |  | Environmental : |  |
|  |  | Overall likelihood of sustainability: |  |

**Project finance / co-finance**

The Evaluation will assess the key financial aspects of the project, including the extent of co-financing planned and realized. Project cost and funding data will be required, including annual expenditures. Variances between planned and actual expenditures will need to be assessed and explained. Results from recent financial audits, as available, should be taken into consideration. The evaluator(s) will receive assistance from the Country Office (CO) and Project Team to obtain financial data in order to complete the co-financing table below, which will be included in the terminal evaluation report.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Co-financing  (type/source) | UNDP own financing (mill. US$) | | Government  (mill. US$) | | Partner Agency  (mill. US$) | | Total  (mill. US$) | |
| Planned | Actual | Planned | Actual | Planned | Actual | Actual | Actual |
| Grants |  |  |  |  |  |  |  |  |
| Loans/Concessions |  |  |  |  |  |  |  |  |
| * In-kind support |  |  |  |  |  |  |  |  |
| * Other |  |  |  |  |  |  |  |  |
| Totals |  |  |  |  |  |  |  |  |

**Mainstreaming**

UNDP supported GEF financed projects are key components in UNDP country programming, as well as regional and global programmes. The evaluation will assess the extent to which the project was successfully mainstreamed with other UNDP priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and gender.

**Impact**

The evaluators will assess the extent to which the project is achieving impacts or progressing towards the achievement of impacts.

**Conclusions, recommendations and lessons**

The evaluation report must include a chapter providing a set of **conclusions**, **recommendations** and **lessons**.

**Implementation arrangements**

The principal responsibility for managing this evaluation resides with the UNDP Jordan CO. UNDP Jordan will issue and manage the contract. The Project Team and Country Office will be responsible for liaising with the Evaluator to set up stakeholder interviews, coordinate with the Government, etc.

*Although the Consultant should feel free to discuss with the authorities concerned all matters relevant to his/her assignment, he/she is not authorized to make any commitment or statement on behalf of UNDP, the GEF or the project management.*

**Evaluator ethics**

Evaluation consultant will be held to the highest ethical standards and are required to sign a Code of Conduct (Annex D) upon acceptance of the assignment. UNDP evaluations are conducted in accordance with the principles outlined in the [UNEG 'Ethical Guidelines for Evaluations'](http://www.unevaluation.org/ethicalguidelines).

**4. DELIVERABLES**

Below are the required activities and expected outputs (deliverables), based on the objectives and scope of work stated above, respective timelines/deadlines and number of working days:

|  |  |
| --- | --- |
| **Output** | **Timeline** |
| 1. Agenda of meetings and report submission time-plans | 2 days after signing the contract and dis with Project’s management team for initial sources of information |
| 1. Debriefing meeting on evaluation results with Project stakeholders, and delivery of an inception report | After conclusion of the mission |
| 1. A first draft of the evaluation report and GEF climate change mitigation tracking tool | 15 July |
| 1. Final evaluation report responding to all comments from Project stakeholders. | 30 July |

1. **REQUIREMENTS FOR EXPERIENCE AND QUALIFICATIONS**

**A) Education:**

* Advanced university degree in energy, environment, engineering, physical science or another relevant subject.

**B) Professional Experiences & Skills:**

* Preferably 10 years of professional experience in fields relevant to energy, environment or climate change mitigation.
* Preferably experience of energy efficiency.
* Minimum 5 years’ experience in conducting evaluation of similar UNDP and/or GEF projects.
* Sound knowledge of results-based management (especially results-oriented monitoring and evaluation).
* Fluency in written and spoken English. Arabic is valuable but not required.
* Full computer literacy.

**C) Competencies**

* Strong interpersonal skills, communication and diplomatic skills, ability to work with stakeholders including governments.
* Ability to plan and organize his/her work, efficient in meeting commitments, observing deadlines and achieving results
* Openness to change and ability to receive/integrate feedback
* Ability to work under pressure and stressful situations
* Strong analytical, reporting and writing abilities

1. **DOCUMENTS TO BE INCLUDED WHEN SUBMITTING THE PROPOSALS.**

* Interested individual consultants must submit the following documents/information to demonstrate their qualifications:
* 1. Proposal:

(i) Explaining why they are the most suitable for the work

(ii) Provide a brief methodology on how they will approach and conduct the work.

* 2. Financial proposal
* 3. Personal CV including past experience in similar projects and at least 3 references

**FINANCIAL PROPOSAL**

**Lump sum contracts**

The financial proposal shall specify a total lump sum amount including fees, travel cost (ticket), DSA, while local transportations (local travel means inside Jordan (IRBID, ZARQA, KARAK, MAAN, AQABA and others) will be covered by the project. Payments are based upon output, i.e. upon delivery of the services specified in the TOR. In order to assist the requesting unit in the comparison of financial proposals, the financial proposal will include a breakdown of this lump sum amount.

1. **EVALUATION**

Individual consultants will be evaluated based on the following methodologies:

Cumulative analysis

When using this weighted scoring method, the award of the contract should be made to the individual consultant whose offer has been evaluated and determined as:

a) responsive/compliant/acceptable, and

b) Having received the highest score out of a pre-determined set of weighted technical and financial criteria specific to the solicitation.

\* Technical Criteria weight; 80%

\* Financial Criteria weight; 20%

Only candidates obtaining a minimum of 60 point would be considered for the Financial Evaluation

|  |  |  |
| --- | --- | --- |
| ***Criteria*** | ***Weight*** | ***Max. Point*** |
| *Technical* | *80%* |  |
| Having carried out similar or related work |  | *40* |
| Technical approach and methodology and work plan demonstrating a clear understanding of the job to be done |  | *40* |
| *Financial* | *20%* | *20* |

1. **DURATION OF MISSION**

The expected duration of this assignment is up to 3 weeks maximum, expected to consist of approximately 11 working days to conduct necessary meetings and finalize the evaluation report.

# Annex 2 – Questionnaire for Survey Among Stakeholders

**Questionnaire for the Mid-Term Evaluation**

***Development and Implementation of a Standards & Labelling Programme in Jordan with Replication in East Africa***

by

Sanju Deenapanray, International Consultant

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(sanju@ecolivinginaction.com)

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**Explanatory note**

As a key stakeholder to the above PROGRAMME, you are most probably aware that the PROGRAMME is undergoing an independent review. It is standard procedure to carry out a Mid-Term Evaluation (MTE) as per standard UNDP/GEF Monitoring and Evaluation Policies and Guidelines.[[30]](#footnote-30) There are four objectives to this independent review, namely:

1. Monitor and evaluate results and impacts;
2. Provide a basis for decision making on necessary amendments and improvements;
3. Promote accountability for resource use (although this exercise is not a Financial Audit);
4. Document, provide feedback on, and disseminate lessons learned.

A variety of instruments is being used to undertake the TE, and one these is the use of questionnaires. In this regard, your views about the various aspects of the PROGRAMME are being sought. Please note that the International Consultant will carry out an in-country mission in the 2nd week of August 2012 during which time there will be the opportunity for face-to-face discussions.

Although you are encouraged to identify yourself, please note that you have the right to anonymity. In the event that you wish to remain anonymous, do however indicate the stakeholder group or institution that you belong to.

=========================================================================

**PART A - Details of Interviewee**

Name of person:

Affiliation (name of institution):

Address:

You or your institution’s involvement with the PROGRAMME:

Stages of involvement the PROGRAMME: Design; Formulation; Implementation; Monitoring & Evaluation; Beneficiary; Other (please state: ) – **Please *tick* as appropriate**.

=========================================================================

**PART B - General Questions (to be answered by all key stakeholders)**

1. Please provide your general feedback on the following components of the Programme using the following ratings: Highly Satisfactory, Satisfactory, Marginally Satisfactory, Unsatisfactory, or N/A. You should use one rating per component.

**Briefly justify your response (where applicable)**.

Relevance – The extent to which the PROGRAMME is suited to local and national development priorities and organizational policies, including changes over time;

Effectiveness – The extent to which an objective has been achieved or how likely it is to be achieved;

Efficiency – The extent to which results have been delivered with the least costly resources possible (while noting that this evaluation is not a financial audit);

Results – The positive and negative, and foreseen and unforeseen, changes to and effects produced by a development intervention. These include direct project outputs, short- to medium-term outcomes, and longer term impacts including global environmental benefits, replication effects, and other local effects; and

(**You may wish to strike out the inappropriate type of results**)

Sustainability – The likely ability of the PROGRAMME to continue to deliver benefits for an extended period of time after completion – i.e. project should be environmentally, financially and socially sustainable.

Stakeholder participation – How well do you believe that the relevant PROGRAMME stakeholders were involved in the project design, formulation, implementation, and monitoring?

Monitoring and evaluation – How would you rate the monitoring and evaluation of the PROGRAMME?

1. Looking back on the PROGRAMME (i.e. with hindsight), what would you have done differently, if any, regarding any one of the dimensions listed under Question 1.
2. Do you believe that the PROGRAMME has played a catalytic role in promoting Energy Efficiency in Jordan? Yes/No/Partially.
3. Are there any risks that have not been identified in the project concerning the sustainability of PROGRAMME outcomes? Yes / No. If ‘yes’ please specify.
4. (a) Have there been factors outside the PROGRAMME boundary that have assisted PROGRAMME outcomes. Yes/No. If ‘yes’ please specify.

(b) Have there been factors outside the PROGRAMME boundary that have prevented PROGRAMME outcomes. Yes/No. If ‘yes’ please specify.

(c) Have there been factors within the project boundary that have prevented project outcomes. Yes/No. If ‘yes’ please explain.

1. (a) What do you believe the strengths of the PROGRAMME have been?

(b) What do you believe the weaknesses of the PROGRAMME have been? If there are any, please mention how they could have been overcome.

(c) Are there any opportunities that the PROGRAMME failed to capitalise on? If yes, please explain how they could have been reaped.

1. How has the PROGRAMME benefited beneficiary communities / end-users of Energy Efficient equipment and appliances?
2. (a) How would you rate the level of public awareness of Energy Efficient equipment and appliances in Jordan?

(b) How would you describe the level of social acceptability of energy efficient equipment and appliances in Jordan?

1. Have there been any major changes that have affected the project since its conceptualization and formulation?

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**PART C - Specific Questions**

This part contains specific questions pertaining to the design, formulation, relevance, implementation and performance of the PROGRAMME. A ‘Yes/No’ answer may be sufficient, but **in case a ‘No’ answer is given it would be good to substantiate the response very briefly**. Please write ‘N/A’ if you are unable to answer a question.

Conceptualization/Design

1. Do you believe that the issue the programme sought to address has been clearly identified and the approach soundly conceived?
2. Have the objectives and outputs of the programme been stated explicitly and precisely in verifiable terms with observable success indicators?
3. Have the relationship between objectives, outputs, activities and inputs of the programme been logically articulated?

Relevance:

1. How relevant has the PROGRAMME been to the development priorities of the country?
2. Which institutions have received the support of the project?

Implementation:

1. Has the project made use of an appropriate institutional arrangement to deliver its outcomes?
2. Have the interests of beneficiaries (communities and institutions) been duly addressed during implementation?
3. Has the PROGRAMME been responsive to any significant changes in its environment?
4. Have the lessons learned from other relevant projects/programmes been duly taken into account during the implementation of the PROGRAMME?
5. Were the monitoring and backstopping of the programme by the Government and UNDP been as expected?
6. Has the Government counterpart inputs in terms of personnel, premises and indigenous equipment been adequate?

Programme Performance:

1. Do you think that the PROGRAMME had adequate resources (financial, physical and manpower) in terms of both quantity and quality?
2. Did the PROGRAMME use its resources effectively (i.e. produced planned results)?
3. Did the PROGRAMME use its resources efficiently to achieve planned results?
4. Do you think that the targeted energy efficient technologies covered by the PROGRAMME suitable for Jordan?
5. Have there been any environmental impacts (positive and negative) at technology deployment sites? What remedial actions were taken for any ‘negative’ impacts?
6. What have been the major social impacts (positive and negative), including impact on the lives of women at technology deployment sites? What remedial actions were taken for any ‘negative’ impacts?

# Annex 3 – Responses of Stakeholders to Questionnaire Survey

The general responses provided by participants to the questions in the survey are summarized below. Please note that all the duly completed questionnaires were submitted together with this MTE Report for validation.

|  |  |
| --- | --- |
| PART A | |
| Relevance | All respondents were adamant that the programme was highly relevant to Jordan given the power crisis. |
| Effectiveness | This was marked ‘satisfactory’ by respondents since the main outputs of the programme are yet to be had, but there is good indication that these outcomes are forthcoming and that the programme will have long-term impacts in transforming the market for EE appliances in Jordan. |
| Efficiency | Marginally unsatisfactory based on CDRs. |
| Results | The main results of the programme are yet to be achieved. |
| Sustainability | The main risk has been identified as sociopolitical. |
| Stakeholder participation | has been identified as a strength of the programme although the stakeholders related to awareness raising are yet to be involved. |
| Monitoring & Evaluation | Monitoring and evaluation would be marginally satisfactory as the main results are yet to be achieved; need to capture the views of most of the programme target groups and the beneficiaries and benefactors. |
| Catalytic Role | It was too early to know whether or not or to what extent the programme would play a catalytic role in transforming the market for EE appliances and equipment. However, most respondents were confident that this would be the case once the Standards and labels would be in place. Also, more emphasis should be devoted to sensitization. |
| Strengths of programme | Adaptive capacity of the programme. |
| Weaknesses of programme | Delays accruing due to lack of coordination and communication between key stakeholders like MOPIC, JSMO and NERC that has led to reformulation of the results framework in 2011. Another weakness relates to the delay between establishing baseline and implementation start that made project objective unrealistic. |
| Public Awareness of EE in Jordan | This has been rated to very low and fair and is related to inadequate level of educational and sensitization campaigns. |
| PART B | |
| Conceptualization of EESL |  |
| Relevance | All respondents were adamant that the programme was highly relevant to Jordan given the power crisis. |
| Implementation effectiveness and efficiency | Almost all respondents mentioned that the programme was implemented using the appropriate institutional set up, and that backstopping from UNDP was appropriate. |
| Performance |  |

# Annex 4 – Stakeholders Consulted for MTE

|  |  |  |
| --- | --- | --- |
| **Date** | **Time** | **Organization** |
| **Monday**  26th August 2013 | 12.00 PM | PMU |
| 12.45 PM | National Energy Research Centre |
| 2 PM | Jordan Standards and Metrology Organization |
| **Tuesday**  27th August 2013 | 9.30 AM to 6.30 PM | UNDP and PMU |
| **Wednesday**  28th August 2013 | 9AM | Ministry of Energy and Mineral Resources (Energy Efficiency Department) |
| 11.00 AM | USAID Public Action Plan for Energy, Water and Environment |
| 1.00 PM | Focal Point |
| **Thursday**  29th August 2013 | 9.00 AM | EU-Delegation (Environment, Energy and Water) |
| 1 PM | PriceWaterhouseCoopers (*pwc*) |
| 3.00 PM | PKF / BioIS |
| **Sunday**  1st September 2013 | 9.00 AM | Ministry of Energy and Mineral Resources |
|  |  |
| **Thursday**  5th September 2013 | 9.00 AM | Meeting with Energy Expert, MoPIC |
|  | 12.00 PM | Meeting the Director, National Building Council. |

# Annex 5 – Results Framework of the Programme

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **This project will contribute to achieving the following Country Programme Outcome as defined in CPAP or CPD:** CPAP Outcome 3.2.: Environmental policies aligned to global conventions and national implementation capacities enhanced. | | | | | |
| **Country Programme Outcome Indicators:**   * Percentage of local manufacturers involved in the production and marketing of energy efficient appliances. * Percentage increase in the sale of energy efficient appliances. | | | | | |
| **Primary applicable Key Environment and Sustainable Development Key Result Area**: Mainstreaming environment and energy | | | | | |
| **Applicable GEF Strategic Objective and Program:** (CC-SP1) “Promoting Energy Efficiency in residential and commercial buildings” | | | | | |
| **Applicable GEF Expected Outcomes:** Outcome #1: Energy-Efficient - Buildings | | | | | |
| **Applicable GEF Outcome Indicators:** Quantity of Energy saved (to be saved or MWh saved) | | | | | |
|  | **Indicator** | **Baseline** | **Targets**  **End of Project** | **Source of verification** | **Risks and Assumptions** |
| **Project Objective**:  **Reduce GHG emissions by supporting a market transformation towards energy efficient new appliances in Jordan.** | -Sales of energy-efficient appliances increase rapidly, for refrigerators / freezers, washing machines and air conditioners; A two classes (EU) improvement in average refrigerator sales is observed.  -Reduction of GHG emissions by 183,000 tons of CO2 for the improved appliances put on the market during the three years project duration. | -Number of energy efficient appliances (refrigerators / freezers, washing machines and air conditioners) sold per year in Jordan  -Current emissions of CO2 in the domestic sector. | -Increase market share of energy efficient appliances in Jordan by30%  -Significant amount of CO2 emissions are avoided per year due to the market transformation of energy efficient appliances in Jordan. | -Project final report.  -Midterm and final evaluation reports.  -Appliance sales impact monitoring report.  -Laboratory testing for refrigerators and freezers. | -Government budgets for compliance checking are present or can be raised.  -Improvement in economic situation continues. |
| **Outcome 1**:  **Enhanced capacities in Government and energy agency units for appliance EE policy development, implementation and market surveillance.** | -National appliance energy efficiency program and impact monitoring system developed and approved by the Government. | -No energy efficient policy for refrigerators / freezers, washing machines and air conditioners. | -All the energy agencies in Government are well equipped to develop, implement and enforce appliances energy efficiency policy. | -Project implementation reports. | -Government staff are willing to commit sufficient time for participation in capacity building activities, then in program preparation. |
| **Outcome 2:**  **Structured verification & enforcement of appliance EE standards and labels.** | -Verification and enforcement procedures are developed, pilot tested are implemented for retailers and product compliance checking, including yearly shop visits for major retailers and spot-checking for other outlets. | -No verification and enforcement procedures in place. | -End term target: Verification and enforcement procedures in place and functional. | -Project implementation reports.  -Retailer compliance pilot checking and product compliance pilot checking reports from the PMU. | -Government budgets for compliance checking are present or can be raised. |
| **Outcome 3:**  **Increased consumers’ and retailers’ awareness and improved marketing of appliance EE standards and labels.** | -Percentage of consumers and retailers understand the trade-off between higher purchase cost and lower running cost of EE appliances and apply this knowledge in their purchase decisions and purchasing advice, respectively. | -Current number of retailers and customers who have understood the trade-off between high purchase cost and lower running cost. | -At least 50% of consumers and 80% of retailers. | -First year and final surveys of consumer and retailer understanding and perceptions of EE appliance.  -Project implementation reports. | -Improvement in economic situation continues. |
| **Outcome 4:**  **Increased capacity of manufacturers to produce and market EE appliances.** | -Percentage of local manufacturers have developed, produced and marketed more efficient appliances. | -Current number of manufacturers producing and marketing EE appliances. | -At least 50% of local manufacturers. | -Project implementation reports. | -Manufacturers are willing to commit staff time for appliance S&L training and financial resources to improve their products. |

# Annex 6 - List of Updated Outputs and Activities

**Outcome 1: Enhanced capacities in Government and energy agency units for appliance EE policy development, implementation and market surveillance**

| **Proposed Outputs** | **Proposed Activities** |
| --- | --- |
| 1.1 - *Political and policy decision makers’ improved awareness of appliance EE options* | 1.1.1 Set up an inter-ministerial forum for policy dialogue on implementing the National Energy Efficiency Action Plan (NEEAP) |
| 1.1.2 Organize workshop for government decision makers outlining the achievements and goals of the project as well as the importance of a long term EE strategy for Jordan |
| 1.1.3 Use the inter-ministerial forum for updating decision makers on project status twice per year |
| 1.2 - *Increased government capacity for the development of the legal and regulatory frameworks for EE appliances, including an enabling EE law* | 1.2.1 Participate in the technical committee with JSMO and the EU Twinning Project on reviewing and approving the technical regulations for the EU EE Directives on home appliances as per 1.3.1 |
| 1.2.2 Increase NERC’s involvement in the development of EE policies with MEMR through involvement in the committees responsible for policy development |
| 1.2.3 Engage PAC members and update them on project progress four times per year |
| 1.3 - *Increased government capacity for the development of an energy labeling strategy consistent with regional S&L efforts* | 1.3.1 Review and approximate EU Directives into Jordanian technical regulations for energy Labeling and Ecodesign Directives |
| 1.3.2 NERC and JSMO with technical input from the EU Twinning Project to produce regional publication on Jordan’s experiences, successes and failures in implementing EU regulations in the pursuit of the open market agreement |
| 1.3.3 NERC to assist MEMR with its efforts to produce a draft of an EE bylaw and action plan through NERC’s involvement in the consultation process |
| 1.4 - *Increased government and PMU capacity in appliance EE support programme development, implementation and monitoring strategies* | 1.4.1 NERC to assist JSMO to produce assessment of its internal procedures for the rapid adoption, implementation and maintenance of EU EE regulations |
| 1.4.2 Harmonize through TOT workshops the EE scenario modeling techniques used by MEMR, ERC and NERC and integrate these techniques within the evaluation process of each organization |
| 1.4.3 Assist the MoEnv and NERC in forecasting the project impact on the reduction of GHG emission through the LEAP software |
| 1.4.4 Harmonize through TOT workshops the EE project baseline, indicator and benchmarking techniques used by MEMR, ERC and NERC and integrate these techniques within the evaluation process of each organization |
| 1.4.5 Harmonize through TOT workshops the EE cost effectiveness evaluation techniques used by MEMR, ERC and NERC and integrate these techniques within the evaluation process of each organization |
| 1.5 - *Enhanced data collection on appliance sales and stock and a structured monitoring system* | 1.5.1 NERC to establish a procedure for the collection of data on appliance sales and stock |
| 1.5.2 NERC to establish internally hosted EE home appliance database to allow for continuous analysis of the market sundry |

**Outcome 2: Structured verification & enforcement of appliance EE labels and standards**

| **Proposed Outputs** | **Proposed Activities** |
| --- | --- |
| 2.1 - *Enhanced knowledge of state inspectors to check the compliance of appliance energy efficiency declarations* | 2.1.1 NERC to develop a methodology for the tracking of second-hand products |
| 2.1.2 NERC to implement second-hand product tracking as per the methodology |
| 2.1.3 Assess JSMO’s existing market surveillance structure, capabilities and human resources used for effective market inspection |
| 2.1.4 JSMO to develop an overall training plan to strengthen the state inspectors’ organizational, technical and operational capacities in compliance checking |
| 2.1.5 Improve JSMO market surveillance personnel knowledge of EE regulations |
| 2.2 - *Verification and enforcement plan for retailers developed and implemented* | 2.2.1 JSMO to establish a procedure and database for the minimization of fraudulent compliance declarations at the border |
| 2.2.2 Conduct field training exercises with JSMO’s market surveillance personnel in conjunction with the EU Twinning Project on EE compliance checking |
| 2.3 - *Facilities for product testing developed and*  *implemented* | 2.3.1 Identify the required harmonized and non-harmonized standards used in the testing of EE compliance in the appliances included within the project |
| 2.3.2 Identify potential 3rd party host organizations capable of implementing quality assurance services for EE compliance |
| 2.3.3 Develop the capability of host organization to perform quality test procedures for EE appliances |
| 2.3.4 Conduct hands on training for quality testing staff members to improve the performance and accuracy of performed testing |
| 2.3.5 Produce a business development plan for the quality testing organization to position the organization as a regional centre of excellence for the testing of EE in home appliances |

**Outcome 3: Consumers’ and retailers’ awareness raised and improved marketing of appliance EE standards and labels**

| **Proposed Outputs** | **Proposed Activities** |
| --- | --- |
| 3.1 - *Enhanced consumer awareness of appliance energy efficiency characteristics, standards*  *and labels and the costs and benefits of more efficient products* | 3.1.1 NERC to conduct a national EE survey providing baseline data for implementing awareness campaign |
| 3.1.2 NERC to develop awareness materials (leaflets, posters, brochures) to educate consumers on benefits of EE appliances |
| 3.1.3 NERC to develop a social media hub and website for engaging consumers using an interactive approach and tracking this engagement through established media metrics |
| 3.1.4 NERC to develop informative segments using the traditional media approach of radio, television and newspapers / written media |
| 3.2 - *Enhanced awareness and knowledge of retailers’ management and retail staff on appliance*  *energy efficiency issues and sales rationales* | 3.2.1 NERC and JSMO to train existing information centre staff in JSMO on delivering information to manufacturers, suppliers, retailers and consumers about the national S&L programme, new energy efficiency regulations, date of entry of these regulations, compliance requirements, support opportunities and consequences of non-compliance |
| 3.2.2 NERC to develop a manual for retailers informing corporate salesmen of basic knowledge and strategies for selling EE appliances |
| 3.2.3 NERC to deliver training to retailer marketing managers using the developed retail manual |
| 3.2.4 NERC to provide information to retailers on EU electrical appliances requirements and encourage them to voluntarily adopt the EE label prior to its mandatory enforcement |

**Outcome 4: Increased capacity of manufacturers to produce and market EE appliances**

| **Proposed Outputs** | **Proposed Activities** |
| --- | --- |
| 4.1 - *Enhanced capacities of manufacturers and suppliers in S&L regulations and related business opportunities* | 4.1.1 Conduct a full economic impact assessment study of the project on GDP, electricity consumption (rebound effect, oil imports and other economic indicators |
| 4.1.2 Conduct technical survey outlining the current level of local manufacturers and importers relative to the mandatory MEPS to be implemented including the financial and operational impact on the manufacturers and importers |
| 4.2 - *Enhanced abilities of manufacturers in the development of more efficient appliances* | 4.2.1 Train NERC staff on the technical aspect of upgrading manufacturer production lines to provide a sustainable knowledge base within NERC as an information hub for manufactures wishing to upgrade their facilities |
| 4.2.2 NERC to deliver individual consultations for local manufacturers regarding the expected costs and technical requirements of upgrading their EE appliances manufacturing facilities |
| 4.2.3 NERC to organize international study tours for manufacturers to observe foreign manufacturing capabilities in the home appliances sector aiming to implement international best practices in Jordan |
| 4.3 – *Manufacturer and supplier participation in an end-user awareness campaign about S&L* | 4.3.1 NERC to approach manufacturers and suppliers to ensure their support and commitment to long term awareness and marketing efforts encouraging consumers to switch to EE appliances |
| 4.3.2 NERC to assist individual manufacturers and suppliers in identifying and simplifying appliance technical details to allow the information to be communicated to consumers with no technical knowledge of EE |
| 4.3.3 NERC to assist suppliers and manufacturers in including EE as a focus of their own marketing campaign |

# Annex 7 - Comparison of original and revised activities

| **Original Outputs** | | **Original Activities** | | | **Proposed Outputs** | | | **Proposed Activities** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Outcome 1: Enhanced capacities in Government and energy agency units for appliance EE policy development, implementation and market surveillance** | | | | | | | | |
| 1.1 - *Political and policy decision makers’ improved awareness of appliance EE options* | | 1.1.1 Set up an inter-ministerial forum for policy dialogue | | | 1.1 - *Political and policy decision makers’ improved awareness of appliance EE options* | | | 1.1.1 Set up an inter-ministerial forum for policy dialogue on implementing the National Energy Efficiency Action Plan (NEEAP) |
| 1.1.2 Organize training sessions for both political and policy decision makers on the benefits of EE policy options for Jordan | | | 1.1.2 Organize workshop for government decision makers outlining the achievements and goals of the project as well as the importance of a long term EE strategy for Jordan |
| 1.1.3 Monitor the outputs of the proposed project and disseminate the necessary information to decision makers | | | 1.1.3 Use the inter-ministerial forum for updating decision makers on project status twice per year |
| 1.2 - *Increased capacity of the Ministry of Energy and Natural Resources for the elaboration /adoption of the legal and regulatory frameworks for EE appliances, including an enabling EE law* | | 1.2.1 Review the current energy policy from an energy efficient product market transformation  perspective and make recommendations for improvement of the current energy efficiency policy and its implementation framework. | | | 1.2 - *Increased government capacity for the development of the legal and regulatory frameworks for EE appliances, including an enabling EE law* | | | 1.2.1 Cooperate with JSMO and the EU Twinning Project on reviewing the EU electrical appliance regulations that will be implemented within JSMO |
| 1.2.2 Increase the capacity of the National Energy Research Centre to deal with EE policies and regulations through specific training on policies and regulations | | | 1.2.2 Increase NERC’s involvement in the development of EE policies with MEMR through involvement in the committees responsible for policy development |
| 1.2.3 Organize information seminars for Government ministries and regulation bodies on the Energy  Conservation Law and EE appliance regulations | | | 1.2.3 Engage PAC members and update them on project progress through quarterly meetings |
| 1.3 - *Increased capacity of the National Energy Research Centre for the selection of a label and*  *energy classification consistent with regional S&L efforts* | | 1.3.1 Identification of EU label classifications and other label classifications for products on a short list  for further analysis to guide the selection of a label for adoption in Jordan. | | | 1.3 - *Increased government capacity for the development of an energy labeling strategy consistent with regional S&L efforts* | | | 1.3.1 Support JSMO and the EU Twinning Project in the approximation of EU legislation relating to EU EE Directives through NERC’s involvement in the legal committees. |
| 1.3.2 Selection of the most appropriate schemes, based on similarities in product designs and manufacturers and consistent with regional S&L efforts (harmonization and alignment). | | | 1.3.2 NERC and JSMO with technical input from the EU Twinning Project to produce regional publication on Jordan’s experiences, successes and failures in implementing EU regulations in the pursuit of the open market agreement |
| 1.3.3 Adoption of label classifications, for mandatory application, regarding air conditioners, refrigerators, freezers and washing machines. | | | 1.3.3 NERC to assist MEMR with its efforts to produce a draft of an EE bylaw through NERC’s involvement in the consultation process |
|  | | |  |
| 1.4 - *Increased capacity of the National Energy Research Centre and PMU in appliance EE*  *support programme development, implementation and monitoring strategies* | | 1.4.1 Assess existing institutional capacity for developing, implementing and maintaining a Standards and Labeling programme | | | 1.4 - *Increased government and PMU capacity in appliance EE support programme development, implementation and monitoring strategies* | | | 1.4.1 JSMO to produce assessment of its internal procedures for the rapid adoption, implementation and maintenance of EU EE regulations |
| 1.4.2 Carry out training courses to reinforce the capacity of the National Energy Research Centre,  Ministry of Energy and Mineral Resources and PMU in appliance EE programme development and implementation | | | 1.4.2 Harmonize through TOT workshops the EE scenario modeling techniques used by MEMR, ERC and NERC and integrate these techniques within the evaluation process of each organization |
| 1.4.3 Review existing legislation and establish framework legislation to develop a legal basis for, and political commitment to, labels and standards | | | 1.4.3 Assist the MoEnv and NERC in forecasting the project impact on the reduction of GHG emission through the LEAP software |
| 1.4.4 Develop an overall label and standards-setting plan, and assign primary responsibility to the NERC to drive each element of the programme | | | 1.4.4 Harmonize through TOT workshops the EE project baseline, indicator and benchmarking techniques used by MEMR, ERC and NERC and integrate these techniques within the evaluation process of each organization |
| 1.4.5 Adopt labels and energy classes consistent with regional S&L efforts | | | 1.4.5 Harmonize through TOT workshops the EE cost effectiveness evaluation techniques used by MEMR, ERC and NERC and integrate these techniques within the evaluation process of each organization |
| 1.4.6 Formulate separate energy conservation standards for each class | | |  | | |  |
| 1.4.7 Explore the potential for technological improvements in the design and manufacturing of energy efficient electrical appliances | | |
| 1.5 - *Enhanced data collection on appliance sales and stock and a structured monitoring system* | | 1.5.1 Identify the skills and experience required for data collection and monitoring | | | 1.5 - *Enhanced data collection on appliance sales and stock and a structured monitoring system* | | | 1.5.1 NERC to establish a procedure for the collection of data on appliance sales and stock |
| 1.5.2 Develop the capacity of the National Energy Research Centre, Ministry of Energy and Mineral Resources and PMU to collect data on appliance sales and stock and monitor the outputs of the proposed project | | | 1.5.2 NERC to establish internally hosted EE home appliance database to allow for continuous analysis of the market |
| 1.5.3 Characterize the structure of the residential appliances industry and markets (quality & quantity) | | |  | | |  |
| 1.5.4 Establish minimum data needs and develop a plan for collecting the data necessary to conduct analyses to support the programme | | |
| 1.5.5 Carry out cost-effectiveness analyses to screen the new products to be included in the programme and establish an order of priority | | |
| 1.5.6 Plan to periodically review and update the labels and standards every three years. | | |
| **Original Outputs** | **Original Activities** | | | **Proposed Outputs** | | **Proposed Activities** | | |
| **Outcome 2: Structured verification & enforcement of appliance EE labels and standards** | | | | | | | | |
| 2.1 - *Enhanced knowledge of state inspectors to check the compliance of shops and of appliance energy efficiency declarations* | 2.1.1 Assess the Jordan Customs Department’s (JCD) capacities for tracking second-hand products | | | 2.1 - *Enhanced knowledge of state inspectors to check the compliance of appliance energy efficiency declarations* | | 2.1.1 NERC to develop a methodology for the tracking of second-hand products | | |
| 2.1.2 Develop an overall plan to strengthen the state inspectors’ organizational, technical and operational capacities in compliance checking | | | 2.1.2 NERC to implement second-hand product tracking as per the methodology | | |
| 2.1.3 Training of JCD inspectors on the new regulations relating to the energy efficiency of household Appliances | | | 2.1.3 Assess JSMO’s existing market surveillance structure, capabilities and human resources used for effective market inspection | | |
| 2.1.4 Prepare the necessary decree to empower the Jordan Customs Department to ensure Compliance | | | 2.1.4 JSMO to develop an overall training plan to strengthen the state inspectors’ organizational, technical and operational capacities in compliance checking | | |
|  | | | 2.1.5 Improve JSMO market surveillance personnel knowledge of EE regulations | | |
| 2.2 - *Verification and enforcement plan for retailers developed, tested in a pilot project and*  *implemented* | 2.2.1 Establish trade inspections for distributor and retailer compliance, checking on counterfeits and fraudulent products | | | 2.2 - *Verification and enforcement plan for retailers developed and implemented* | | 2.2.1 JSMO to establish a procedure and database for the minimization of fraudulent compliance declarations at the border | | |
| 2.2.2 Assess the capacities of the JCD and Ministry of Planning and International Cooperation for checking distributors and retail outlets for product compliance. | | | 2.2.2 Conduct field training exercises with JSMO’s market surveillance personnel in conjunction with the EU Twinning Project on EE compliance checking | | |
| 2.2.3 Training of JCD inspectors for compliance checking at distributor and retail outlets | | |  | |  | | |
| 2.3 - *Verification and enforcement plan and facilities for product testing developed and*  *implemented in a pilot project* | 2.3.1 Identify IEC test procedures for the selected appliances (air conditioners, refrigerators, freezers,  washing machines) | | | 2.3 - *Facilities for product testing developed and*  *implemented* | | 2.3.1 Identify the required harmonized and non-harmonized standards used in the testing of EE compliance in the appliances included within the project | | |
| 2.3.2 Adopt national test procedures | | | 2.3.2 Identify potential 3rd party host organizations capable of implementing quality assurance services for EE compliance | | |
| 2.3.3 Identify national institutional candidates to perform the verification and testing of household Appliances | | | 2.3.3 Develop the capability of host organization to perform quality test procedures for EE appliances | | |
| 2.3.4 Create facilities for testing and monitoring compliance (test facilities must be certified) | | | 2.3.4 Conduct hands on training for quality testing staff members to improve the performance and accuracy of performed testing | | |
| 2.3.5 Adopt a significant budget for testing | | | 2.3.5 Produce a business development plan for the quality testing organization to position the organization as a regional centre of excellence for the testing of EE in home appliances | | |
| 2.3.6 Create the administrative apparatus for enforcement to incorporate testing into enforcement | | |  | |  | | |
| 2.3.7 Maintain political support for EE S&L programme development and operation | | |
| 2.3.8 Harmonize energy performance test procedures with international protocols to facilitate testing  and reduce barriers to trade | | |
| 2.3.9 Establish a legal verification and enforcement system to follow up on non-compliance with the  Regulations | | |
| 2.3.10 Develop and implement a verification and enforcement system to follow up on the noncompliance  of products with the regulations (on imports) as a pilot project | | |
| 2.3.11 Develop and implement a verification and enforcement system on the non-compliance of distributors and retailers (on sales) as a pilot project | | |
| 2.3.12 Draft practical guides for testing professionals based on best practices | | |
| **Original Outputs** | | **Original Activities** | **Proposed Outputs** | | | | **Proposed Activities** | |
| **Outcome 3: Consumers' and retailers' awareness raised and improved marketing of appliance EE standards and labels** | | | | | | | | |
| 3.1 - *Enhanced consumer awareness of appliance energy efficiency characteristics, standards*  *and labels and the costs and benefits of more efficient products* | | 3.1.1 Organize national campaigns targeting the consumers to inform them about appliance energy efficiency benefits. | 3.1 - *Enhanced consumer awareness of appliance energy efficiency characteristics, standards*  *and labels and the costs and benefits of more efficient products* | | | | 3.1.1 NERC to have oversight of a national EE survey executed by an external agency providing baseline data for implementing awareness campaign | |
| 3.1.2 Develop and promote awareness materials (leaflet, posters, brochures, websites, etc.) to provide end-users with information about appliance energy efficiency principles and the costs and benefits of more efficient products. | 3.1.2 NERC to develop awareness materials (leaflets, posters, brochures) in conjunction with external agency to educate consumers on benefits of EE appliances | |
|  | |  | 3.1.3 NERC to develop in conjunction with an external agency a social media hub and website for engaging consumers using an interactive approach and tracking this engagement through established media metrics | |
| 3.1.4 NERC to develop informative segments in conjunction with an external agency using the traditional media approach of radio, television and newspapers / written media | |
| 3.2 - *Enhanced awareness and knowledge of retailers’ management and retail staff on appliance*  *energy efficiency issues and sales rationales* | | 3.2.1 Inform importers, distributors and retailers about appliance energy efficiency in Jordan | 3.2 - *Enhanced awareness and knowledge of retailers’ management and retail staff on appliance*  *energy efficiency issues and sales rationales* | | | | 3.2.1 NERC and JSMO to train existing information centre staff in JSMO on delivering information to manufacturers, suppliers, retailers and consumers about the national S&L programme, new energy efficiency regulations, date of entry of these regulations, compliance requirements, support opportunities and consequences of non-compliance | |
| 3.2.2 Provide information to retailers’ management about the national S&L programme, new energy  efficiency regulations, date of entry of these regulations, compliance requirements, support  opportunities and consequences of non-compliance | 3.2.2 NERC to develop in conjunction with an external agency a manual for retailers informing corporate salesmen on basic knowledge and strategy of selling EE appliances | |
| 3.2.3 Develop a training course for distributor and retailer staff, focusing on the sales of more efficient  Appliances | 3.2.3 NERC to deliver training to retailer marketing managers using the developed retail manual | |
| 3.2.4 Delivery of the training programme of the sales staff of the majority of distributors and retailers (at least 85%) | 3.2.4 NERC to provide information to importers and manufacturers on EU electrical appliances requirements and encourage them to voluntarily adopt the EE label prior to its mandatory enforcement | |
|  | |  |  | |

| **Original Outputs** | **Original Activities** | **Proposed Outputs** | **Proposed Activities** |
| --- | --- | --- | --- |
| **Outcome 4: Increased capacity of manufacturers to produce and market EE appliances** | | | |
| 4.1 - *Enhanced capacities of manufacturers in S&L regulations and related business opportunities* | 4.1.1 Inform manufacturers about the new energy efficiency regulations, date of entry of other  regulations, compliance requirements, the national S&L programme and consequences of noncompliance | 4.1 - *Enhanced capacities of manufacturers and suppliers in S&L regulations and related business opportunities* | 4.1.1 NERC to have oversight of a full economic impact analysis publication developed in conjunction with an external agency for the EE label, associated standard and regulations to allow manufacturers and suppliers to understand the long term market transformation process they will endure |
| 4.1.2 Provide manufacturers with business opportunities relating to EE improvements of appliances. | 4.1.2 NERC to have oversight of a technical analysis developed in conjunction with an external agency detailing the financial and operational impact on the manufacturing process of each of the project’s appliances |
| 4.2 - *Enhanced abilities of manufacturers in the development of more efficient appliances* | 4.2.1 Assist in the assessment of the potential for energy efficiency improvements to household Appliances | 4.2 - *Enhanced abilities of manufacturers in the development of more efficient appliances* | 4.2.1 Train NERC staff on the technical aspect of upgrading manufacturer production lines to provide a sustainable knowledge base within NERC as an information hub for manufactures wishing to upgrade their facilities |
| 4.2.2 Identify the required skills of manufacturers in the development of more EE appliances | 4.2.2 NERC to deliver individual consultations for local manufacturers regarding the expected costs and technical requirements of upgrading their EE appliances manufacturing facilities |
| 4.2.3 Develop an overall plan to strengthen the organizational, technical and operational capabilities of municipal code enforcement agencies | 4.2.3 NERC to organize international study tours for manufacturers to observe foreign manufacturing capabilities in the home appliances sector aiming to implement international best practices in Jordan |
| 4.2.4 Support international study tours for manufacturer managers for best practice sharing |  |  |
| 4.2.5 Inform importers, distributors and retailers about appliance energy efficiency in Jordan |
| 4.2.6 Provide technical support during the implementation of the S&L programme |
| 4.3 - *Manufacturers’ participation in an end-user awareness campaign about S&L* | 4.3.1 Mobilize manufacturers to participate in a nation-wide consumer awareness campaign | 4.3 – *Manufacturer and supplier participation in an end-user awareness campaign about S&L* | 4.3.1 NERC to approach manufacturers and suppliers to ensure their support and commitment to long term awareness and marketing efforts encouraging consumers to switch to EE appliances |
| 4.3.2 Assist manufacturers in the development of adequate materials for the end-user awareness Campaign | 4.3.2 NERC to assist individual manufacturers and suppliers in identifying and simplifying appliance technical details to allow the information to be communicated to consumers with no technical knowledge of EE |
| 4.3.3 Help manufacturers in the delivery of the end-user awareness campaign | 4.3.3 NERC to assist suppliers and manufacturers in including EE as a focus of their own marketing campaign |

# Annex 8 – The Project Board – Role and Responsibilities

**Overall responsibilities:**

The Project Board is the group responsible for making by consensus management decisions for a project when guidance is required by the Project Manager, including recommendation for UNDP/NERC approval of project plans and revisions. In order to ensure UNDP’s ultimate accountability, Project Board decisions should be made in accordance to standards that shall ensure best value to money, fairness, integrity transparency and effective international competition. Project reviews by this group are made at designated decision points during the running of a project, or as necessary when raised by the Project Manager. This group is consulted by the Project Manager for decisions when PM tolerances (normally in terms of time and budget) have been exceeded.

Based on the approved annual work plan (AWP), the Project Board may review and approve project quarterly plans when required and authorizes any major deviation from these agreed quarterly plans. It is the authority that signs off the completion of each quarterly plan as well as authorizes the start of the next quarterly plan. It ensures that required resources are committed and arbitrates on any conflicts within the project or negotiates a solution to any problems between the project and external bodies. In addition, it approves the appointment and responsibilities of the Project Manager and any delegation of its Project Assurance responsibilities.

**Composition and organization:**

1. UNDP Jordan
2. Ministry of Planning and International Cooperation
3. National Energy Research Centre

**Specific responsibilities:**

*Initiating a project*

* Agree on Project Manager’s responsibilities, as well as the responsibilities of the other members of the Project Management team;
* Delegate any Project Assurance function as appropriate;
* Review the Progress Report for the Initiation Stage;
* Review and appraise detailed Project Plan and AWP, including Atlas reports covering activity definition, quality criteria, issue log, updated risk log and the monitoring and communication plan.

*Running a project*

* Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
* Address project issues as raised by the Project Manager;
* Provide guidance and agree on possible countermeasures/management actions to address specific risks;
* Agree on Project Manager’s tolerances in the Annual Work Plan and quarterly plans when required;
* Conduct regular meetings to review the Project Quarterly Progress Report and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans.
* Review Combined Delivery Reports (CDR) prior to certification by the Implementing Partner;
* Appraise the Project Annual Review Report, make recommendations for the next AWP, and inform the Outcome Board about the results of the review.
* Review and approve end project report, make recommendations for follow-on actions;
* Provide ad-hoc direction and advice for exception situations when project manager’s tolerances are exceeded;
* Assess and decide on project changes through revisions;

*Closing a project*

* Assure that all Project deliverables have been produced satisfactorily;
* Review and approve the Final Project Review Report, including Lessons-learned;
* Make recommendations for follow-on actions to be submitted to the Outcome Board;
* Commission project evaluation (only when required by partnership agreement)
* Notify operational completion of the project to the Outcome Board.

**Procedures**

* The PB shall conduct business through meetings convened three times per year.
* At the first meeting of the PB, the PB members will review this TOR and the PB membership, and adopt changes as appropriate
* The National Project Manager will organize the meetings and act as Secretary and will prepare and distribute all concerned documents in advance of meetings, including the meeting agenda.
* In between meetings, PB business will be conducted through e-mail, coordinated by the Project Manager

**Input**

At least 3 formal meeting per year through the duration of the project.

# Annex 9 - Evaluation Consultant Code of Conduct and Agreement Form

**Evaluators:**

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people’s right not to engage. Evaluators must respect people’s right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders’ dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study imitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

**Evaluation Consultant Agreement Form[[31]](#footnote-31)**

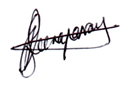
**Agreement to abide by the Code of Conduct for Evaluation in the UN System**

**Name of Consultant:** \_\_Prakash (Sanju) Deenapanray\_\_\_\_

**Name of Consultancy Organization** (where relevant)**:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.**

Signed at *La Gaulette, Mauritius* on *15 September 2013*



Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Prepared by:

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(Tel : +230 5924 3395)

1. <http://www.rcreee.org/projects/2012/11/25/energy-efficiency-indicators/> - accessed 5 September 2013. [↑](#footnote-ref-1)
2. http://thegef.org/MonitoringandEvaluation/MEPoliciesProcedures/mepoliciesprocedures.html. [↑](#footnote-ref-2)
3. http://www.undp.org/gef/05/monitoring/policies.html. [↑](#footnote-ref-3)
4. This is taken to be the date of the Inception Workshop. [↑](#footnote-ref-4)
5. This is taken to be 18 months after the implementation start date. [↑](#footnote-ref-5)
6. Statistical data reported in this section are taken from: <http://www.memr.gov.jo/LinkClick.aspx?fileticket=Z6Mx8R3-5i8%3d&tabid=244>; <http://www.memr.gov.jo/Portals/12/statistics/Electricity%20Consumption.htm> – accessed 30 August 2013. [↑](#footnote-ref-6)
7. <http://www.rcreee.org/projects/2012/11/25/energy-efficiency-indicators/> - accessed 5 September 2013. [↑](#footnote-ref-7)
8. <http://unfccc.int/essential_background/convention/status_of_ratification/items/2631.php> - accessed 30 July 2012. [↑](#footnote-ref-8)
9. GEF Secretariat (2010) GEF-5 Programming Document: Sixth Meeting for the Fifth Replenishment of the GEF Trust Fund, Paris, 12 May 2010. [↑](#footnote-ref-9)
10. For the focal area strategic approach for GEF-4, see GEF Council document GEF/C.31/1, “Focal Area Strategic and Strategic Programming for GEF-4,” July 16, 2007. [↑](#footnote-ref-10)
11. For the focal area strategic priorities for GEF-5, see GEF Council document GEF/R.5/31, “GEF-5 Programming Document,” May 3, 2010. [↑](#footnote-ref-11)
12. The Project Document quotes: “With the estimated project impact of 183,000 tonnes of CO2 reduced (for 2009-2013 period), the cost effectiveness of the GEF support can be estimated at USD 3.82 per tonne CO2 reduced. An

    additional 607 kt of CO2 through 2019 and 2,708 kt through 2029 can be achieved due to further market transformation. By taking this into account and by applying a GEF causality factor of 80% (level 4), the cost effectiveness of the GEF intervention can be further improved down to USD 0.30 per tonne of CO2 reduced.” [↑](#footnote-ref-12)
13. Meeting with Eng. Muhieddin Tawalbeh, NERC – 26 August 2013. [↑](#footnote-ref-13)
14. P. Verme (2011) Electricity Subsidies and Household Welfare in Jordan – Can households afford to pay for the budget crisis? [↑](#footnote-ref-14)
15. Please see: <http://www.worldbank.org/en/country/jordan/overview> - accessed 15 September 2013. [↑](#footnote-ref-15)
16. Discussions with Mr Mohammad Alatoom, Head of Environment and Climate Change, UNDP CO, Amman – 2 September 2013. [↑](#footnote-ref-16)
17. Meeting with Ms Zena Ali-Ahmed, UNDP Country Director – Wednesday 4 September 2013. [↑](#footnote-ref-17)
18. The prevailing practice in Jordan is to provide a fee to incentivize the participation of individuals in committees. [↑](#footnote-ref-18)
19. <http://www.rcreee.org/projects/2012/11/25/energy-efficiency-indicators/> - accessed 5 September 2013. [↑](#footnote-ref-19)
20. Meeting with the Ministry of Planning and International Cooperation - Thursday 5 September 2013. [↑](#footnote-ref-20)
21. Meeting with Dr Eng. Jamal Qtaishat, Director, Jordan National Building Council – Thursday 5 September 2013. [↑](#footnote-ref-21)
22. Directive 2009/125/EC of the European Parliament (2009) Official Journal of the European Union. [↑](#footnote-ref-22)
23. NEEAP (2013), pg. 14. [↑](#footnote-ref-23)
24. The prevailing practice in Jordan is to provide a fee to incentivize the participation of individuals in committees. [↑](#footnote-ref-24)
25. <http://pub.iges.or.jp/modules/envirolib/view.php?docid=2136> – accessed 11 October 2013. [↑](#footnote-ref-25)
26. Discussions with Ms Rula Madanat, Deputy Director, JSMO – Monday 26 August 2013. [↑](#footnote-ref-26)
27. Ernst & Young, Impact of upcoming energy efficiency standards and labeling programme on local manufacturers and suppliers of home appliances (to be finalized). [↑](#footnote-ref-27)
28. Discussions with Mr Zaid Sabbagh, Managing Director, Focal Point – Wednesday 28 August 2013. [↑](#footnote-ref-28)
29. For additional information on methods, see the [Handbook on Planning, Monitoring and Evaluating for Development Results](http://www.undp.org/evaluation/handbook), Chapter 7, pg. 163 [↑](#footnote-ref-29)
30. Guidelines for GEF Agencies in Conducting Terminal Evaluations, Evaluation Document No. 3 (Global Environment Facility, Evaluation Office, 2008); and The GEF Monitoring and Evaluation Policy, Evaluation Document No. 1 (Global Environment Facility, Evaluation Office, 2006) – both documents accessed at <http://thegef.org> - 12 July 2010. [↑](#footnote-ref-30)
31. www.unevaluation.org/unegcodeofconduct [↑](#footnote-ref-31)