### 1. PROJECT DATA

<table>
<thead>
<tr>
<th></th>
<th>Review date:</th>
<th>GEF financing:</th>
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<tbody>
<tr>
<td>GEF Project ID:</td>
<td></td>
<td>at endorsement</td>
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<tr>
<td></td>
<td></td>
<td>(Million US$)</td>
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<td></td>
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<td>at completion</td>
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<tr>
<td></td>
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<td>(Million US$)</td>
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<tr>
<td>IA/EA Project ID:</td>
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</tr>
<tr>
<td>Project Name:</td>
<td>Capacity Building for the Adoption and Application of Energy Codes for Buildings</td>
<td></td>
</tr>
<tr>
<td>IA/EA own:</td>
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<td></td>
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<tr>
<td>Country:</td>
<td>Regional (Lebanon Report)</td>
<td></td>
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<td>Other*:</td>
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<td></td>
</tr>
<tr>
<td>Total Project Cost:</td>
<td>1.249</td>
<td>1.087</td>
</tr>
</tbody>
</table>

**Partners involved:**
- Lebanese Directorate General of Urban Planning under the Ministry of Public Works; Palestine Ministry of Local Governments UNDP/PAPP
- Work Program date: 12/01/1999
- CEO Endorsement: 01/24/2001
- Effectiveness/ Prodoc Signature (i.e. date project began): 04/05/2001
- Closing Date: Proposed: February 2004
- Actual: October 2005
- Prepared by: Anna
- Reviewed by: Aaron
- Duration between effectiveness date and original closing: 2 years 10 months
- Duration between effectiveness date and actual closing: 4 years 6 months
- Difference between original and actual closing: 1 year 8 months
- Author of TE: Klinkenberg Consultants
- TE completion** date: 03/16/2006
- TE submission date to GEF EO: 05/26/2006
- Difference between TE completion and submission date: 2 months

* Other is referred to contributions mobilized for the project from other multilateral agencies, bilateral development cooperation agencies, NGOs, the private sector and beneficiaries. **Two different TE’s were submitted, one each for Palestine and Lebanon where the project was implemented. The TER is based on the consolidation of the findings of these two TEs.

### 2. SUMMARY OF PROJECT RATINGS

GEF EO Ratings for project impacts (if applicable), outcomes, project monitoring and evaluation, and quality of the terminal evaluation: Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HU), not applicable (N/A) and unable to assess (U/A). GEF EO Ratings for the project sustainability: Highly likely (HL), likely (L), moderately likely (ML), moderately unlikely (MU), unlikely (U), highly unlikely (HU), not applicable (N/A), and unable to assess (U/A). Please refer to document “Ratings for the achievement of objectives, sustainability of outcomes and impacts, quality of terminal evaluation reports and project M&E systems” for further definitions of the ratings.

<table>
<thead>
<tr>
<th></th>
<th>Last PIR</th>
<th>IA Terminal Evaluation</th>
<th>Other IA evaluations if applicable (e.g. IEG)</th>
<th>GEF EO</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Project outcomes</td>
<td>S</td>
<td>N/A</td>
<td>N/A</td>
<td>MS</td>
</tr>
</tbody>
</table>
Should this terminal evaluation report be considered a good practice? Why? No. Although each of the two TE reports submitted for Palestine and for Lebanon is satisfactory individually, lack of consolidation of the two reports before submission to the EO is not a good practice. This said, the reports are objective, complete and well balanced.

Is there a follow up issue mentioned in the TE such as corruption, reallocation of GEF funds, etc.? No.

3. PROJECT OBJECTIVES, EXPECTED AND ACTUAL OUTCOMES

3.1 Project Objectives

- What are the Global Environmental Objectives? Any changes during implementation?

According to the TE the global environmental objective of the project was to build national capacities of Lebanon and Palestine to:
1. Reduce greenhouse gas emissions.
2. Establish thermal energy standards for buildings and prepare grounds for future adoption of the standard as an energy code for buildings.
3. Initiation of a transformation in the construction industry in Lebanon and Palestine.

There were no changes in the project objectives

- What are the Development Objectives? Any changes during implementation?

**Lebanon**
1. Review the “Thermal Building Guidelines” prepared by LIBNOR and conduct an environmental, economic and social assessment of these guidelines.
2. Produce the completed and agreed-upon Thermal Building Standard Document.
3. Dissemination and Sensitization of policy makers, professionals and general public on the Thermal Building Standards Environmental, economic and social assessments through workshops and publications.
4. Capacity building of resources (information dissemination tools) and skilled manpower in thermal building standard adoption methods and designs and in certification and verification process for compliance.

In the original design, according to the TE, the project was expected to require limited technical capacities (in thermal standard development). It was expected that the technical quality of the Thermal Comfort Guidelines would be sufficient, and that a relatively easy translation of the guidelines into a standard would suffice. An assessment, early in the project, learned that this was not the case and additional technical capacities needed to be employed for the development of a climatic zoning and a thermal standard for Lebanon. It was decided to recruit the support of an international consultant for these two outputs.

**Palestine**
According to the Project Appraisal Document the project development objectives for Palestine were:
1: Establishing a Cost-effective Energy Codes for Buildings
2: Building local human and resource capacity in energy-saving modalities in the PA
3: Wide public adoption of cost-effective energy-saving modalities in buildings
It is not clear whether there were changes in the project development objectives for Palestine changed during implementation of the project as this issue was not covered in the TE for Palestine.

3.2 Outcomes and Impacts

- What were the major project outcomes and impacts as described in the TE?

**Lebanon**

According to the TE a Thermal standard has been developed, which is endorsed by the Lebanese Government and the main professional body for voluntary application, and future mandatory adoption. The Thermal standard targets the most significant elements of the building envelope, and was developed in close cooperation with national stakeholders.

Evidence of a transformation in the construction sector can only be expected in coming years. It is common, and accepted practice, that a market transformation takes time, and is initiated by a set of policies and programs. A Thermal standard can be a very important element in such transformation, but is rarely the only component.

Extensive attention was given to the development of capacities for the voluntary adoption of the thermal standard, especially with private sector professionals and in close collaboration with professional bodies and universities. The outputs in this area go well beyond the planned outputs of the project (including a software tool and a – new – design guide), and should be considered a valuable extension of the expected results of the project.

**Palestine**

According to the TE an Energy Efficient Building Code has been prepared in the project, including (fairly modest) provisions for heat loss reductions through ceilings, roofs and walls of buildings. The Code was based on a pre-existing Jordanian energy code, which was adapted to the Palestinian climatic conditions. However, the approach did not account for the fact that the Jordanian code was already fairly old and that the Palestinian climate would have required some different analyses. The Code was recently adopted as a by-law, which regulates the adoption as a mandatory standard for new public buildings, and as voluntary for all other buildings. No incentive mechanism has been created to support voluntary adoption; a verification and enforcement mechanism is yet to be prepared for the adoption of the Code.

Extensive attention was given to the development of capacities for the adoption of the thermal standard, especially with private sector professionals and in close collaboration with professional bodies and universities.

Evidence of a transformation in the construction sector can only be expected in coming years. It is common, and accepted practice, that a market transformation takes time, and is initiated by a set of policies and programs. A Thermal standard can be a very important element in such transformation, but is rarely the only component.

4. GEF EVALUATION OFFICE ASSESSMENT

4.1 Outcomes

<table>
<thead>
<tr>
<th>A Relevance</th>
<th>Rating: S</th>
</tr>
</thead>
<tbody>
<tr>
<td>In retrospect, were the project's outcomes consistent with the focal areas/operational program strategies? Explain.</td>
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</tr>
</tbody>
</table>

The outcomes are consistent with climate change and the strategies of OP5 to abate GHG emissions by promoting energy efficiency of new buildings. The Thermal standard that has been developed and accepted by the main stakeholders for voluntary adoption and mandatory adoption in 2010 will contribute to reducing CO2 emissions in buildings.
B Effectiveness

Rating: MS

- Are the project outcomes as described in the TE commensurable with the expected outcomes (as described in the project document) and the problems the project was intended to address (i.e. original or modified project objectives)?

Lebanon

According to the TE, overall the results of the project are good, given the starting point, the context and the size of the project. The evaluation takes into account that the original purpose of the project was to build national capacities for the adoption and application of thermal standards for buildings, and this has been achieved beyond the required performance level. Professional capacities have been developed and arrangements and tools (additional outputs include a software tool and a new design guide) to continue this capacity building without further support in coming years.

A Thermal standard has been developed, according to the TE, which is endorsed by the Lebanese Government and the main professional body for voluntary application, and future mandatory adoption. During the implementation of the project, the project management, in cooperation with the implementing agency and the UNDP country office, increased the scope of the project to also prepare a detailed technical analysis for the development of this thermal standard. (See Development Objectives changes in section 3.1 and section 4.1.C of this TER for more details.) Although this was a necessary step, the available resources for this addition did not match the approach chosen, and the output of this addition is at best marginally satisfactory. That is, the technical analysis supporting the standard shows some significant errors. The standard can be considered a good first step of the process, but for mandatory adoption, a revision of the technical / economic analysis would be required, according to the TE.

Palestine

Overall, according to the TE, the results of the project are good, given the starting point, the context and the size of the project. The evaluation takes into account that the project was developed in 1999, under a different political and societal scenario, and was implemented during the 2nd intifada. According to the TE that fact accounts for various differences between expected and realized outcomes, although for some objectives, the project document was overly optimistic about the impact that could be achieved with a relatively small project. Although the results are good, they are probably not sufficient for a full adoption of mandatory building energy codes for all buildings in Palestine.

According to the TE an Energy Efficient Building Code has been prepared in the project, including (fairly modest) provisions for heat loss reductions through ceilings, roofs and walls of buildings. (see section 3.2 Outcomes and Impacts above) The TE found the technical quality of the energy code not very good.

The TE notes that, due to the security situation during project implementation, all studies were conducted by national experts, without international support and typically without previous experience in energy code development or building energy efficiency regulation. This is not a desirable situation, as is shown by the analytic quality of the outputs, but it was the only option under the circumstances.

Overall, according to the TE the project has focused a lot of attention on introducing the energy code in the construction sector, and on raising awareness and knowledge of involved professionals. The project has delivered various outputs beyond what was planned (including a software tool and guidelines), that contribute considerably to the building of professional capacities.

The awareness raising campaign according to the TE has probably also had an impact on promoting a wide public adoption of energy efficient modalities, but this impact appears to be small. Stakeholders claim that the general public’s demand for energy efficiency measures is non-existent, and the acceptance of measures proposed by designer limited. In this respect, it
should be considered that a small awareness raising campaign, as was planned as part of this project, is unlikely to have much impact on the general public’s awareness and understanding of building energy efficiency, and – especially without an incentive mechanism or a legal requirement for compliance with the code – very little impact on the willingness of the public to act on the information provided. The TE says that the objective to create a wide public adoption was probably an over-estimation of what can be achieved by a project of this scope and size, and the conclusion that the impact on this aspect has probably been very small should not be considered a failure of the project.

The TE notes that a market transformation, especially of the construction industry, often takes a lot of time and effort, and the assumption (in the project document) that this project could initiate such transformation by the planned activities is very optimistic. In reality, professional attention for and voluntary adoption of the energy code requirements by a pro-active share of the market would already signify a good impact on the market given the size and duration of the project, and the result achieved should be view in this perspective and that of the unstable situation in Palestine.

C Efficiency (cost-effectiveness)  Rating: MS

- Include an assessment of outcomes and impacts in relation to inputs, costs, and implementation times based on the following questions: Was the project cost – effective? How does the cost-time Vs. outcomes compare to other similar projects? Was the project implementation delayed due to any bureaucratic, administrative or political problems and did that affect cost-effectiveness?

Lebanon
According to the TE, overall project outputs exceed the originally expected ones, and the project has kept within the budget. The actual spending on project activities was cost-effective and proportional to the project objectives with the exception of the additional technical work in preparation of the Thermal standard. Financial management was timely and adequate, and disbursement delays are justified.

During the review of the Thermal Building Guidelines, according to the TE, the project learned that the Guidelines were an insufficient basis for a Thermal standard, and additional work would be needed for the development of such standard. Consequently, the environmental, economic and social aspects of the Guidelines have not been assessed. An assessment of energy and end-user cost aspects of the Thermal standard has been included in the additional technical analysis (energy and economic analysis), but no national energy cost, greenhouse gas emissions, wider economic impact or social impact analyses. The latter two, although planned, would probably have required significantly more effort than was planned for the project, and would probably have been omitted anyway. A sound national energy cost analysis (including the effects on energy subsidy and the national budget), and a greenhouse gas emissions analysis, should have been conducted. It should be noted that the energy and economic analysis had a rather small scope, and includes some errors. For the TE, it is not considered as a sound source of information for the end-user benefits of thermal standard adoption.

Palestine
Project implementation has been challenging, according to the TE, due to a national political context that severely hindered project implementation. The political situation resulted in difficult working conditions for the project team and the executing agency, travel restrictions for project staff, stakeholders and consultants, and at times a loss of political attention for the project. According to the TE project management adapted the project adequately in response to these challenges, and has kept the project continuously on track towards its objectives. These objectives were achieved, after some delays, and with some changed project activities. The project has kept good track of changes in the project environment, outputs and other relevant issues, and activities, budgets and timing have been adapted accordingly.

The TE states that the project was implemented according to plan, although at a slower pace, and solutions were found to counteract the impact of the travel restrictions on the availability of
stakeholders and consultants. Due to travel restrictions and the security situation, it was impossible to involve an international consultancy in the technical development of the building energy code, as was planned. Instead, the project team, in consultation with UNDP, decided to hire the Jordanian Royal Scientific Society to provide technical assistance for the development of the code.

Spending appears to have been cost-effective according to the TE. Budgets are fair to low in relation to the delivered outputs, and consultants and main contractors have been selected via standard procurement procedures, with cost-competition. Overall, more outputs have been delivered than was originally agreed, within the original budget. Additional outputs not listed in the project document include the Guidelines for Energy Efficiency Building Design and a software tool to calculate the insulation performance of building shell components. A benchmark or a comparison with other, similar projects, however, could not be established, as this project is fairly new to the region and has been subject to several unique circumstances.

<table>
<thead>
<tr>
<th>D Impacts</th>
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<tbody>
<tr>
<td>• Has the project achieved impacts or is it likely that outcomes will lead to the expected impacts?</td>
</tr>
</tbody>
</table>

**Lebanon**

According to the TE it can reasonably be assumed that the developed and adopted Thermal standard will lead to significantly reduced building energy consumption, and reduced national greenhouse gas emissions. Due to a lack of reliable information, no quantification could be established.

The ultimate environmental goal of the project is the reduction of greenhouse gas emission, via the reduction of fuel and electricity demand in buildings. According to the TE the actual impact of the project on national energy demand cannot be identified now, since it will take some years for the Thermal standard to gain full impact on the market, and some more years for sufficient data to become available. Instead, the expected impact of the Thermal standard after completion of the project, and including the impact of national implementation arrangements, should be compared to the project baseline.

The TE states that unfortunately, the available calculations for building energy demand in the base case and the alternative case (part of the energy and economic analysis) contains too much error to provide a reliable overview. The reported impact (in the energy and economic analysis) is based on some (partly unfounded) assumptions about average impacts, but fails to separate the savings on delivered fuel and power (which would be needed for a national energy or CO2-impact analysis). A recalculation of the basic modeling data would be needed to provide a calculation of the national impact, which is outside of the scope of this evaluation.

**Palestine**

The ultimate environmental goal of the project is the reduction of greenhouse gas emission, via the reduction of energy demand in buildings. According to the TE the actual impact of the project on national energy demand cannot be identified now, since it will take some years for the Thermal standard to gain full impact on the market, and some more years for sufficient data to become available. Instead, the expected impact of the Thermal standard after completion of the project, and including the impact of national implementation arrangements, should be compared to the project baseline.

No calculations have been made to assess the impact of the project’s results on future building energy demand. Some initial calculations have been made to show the effects of the building energy code on some cases, but there is no indication of the share of the market that these buildings represent, and the calculations are seriously flawed.
4.2 Likelihood of sustainability. Using the following sustainability criteria, include an assessment of risks to sustainability of project outcomes and impacts based on the information presented in the TE.

<table>
<thead>
<tr>
<th>A</th>
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<th>Rating: ML</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lebanon</strong></td>
<td>The project has increased developers’ awareness of economic incentives for financing and adopting thermal building guidelines according to the TE. Contacts have been established with the financial (mortgage banks) sector. This sector has been sensitized to the concept of building energy efficiency, and has opened up to the option of supporting or demanding the energy performance of building. The banks did indicate, however, that they would rather consider thermal performance as part of a wider strategy, covering all building energy efficiency issues, than to apply separate strategies for each issue. Also arrangements have been made with the project Lebanese Centre for Energy Conservation and Planning, to communicate the benefits of better thermal performance to the public, further the market introduction of the Thermal standard and investigate options for financial instruments to support the adoption of the standard.</td>
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<tr>
<th>B</th>
<th>Socio political</th>
<th>Rating: L</th>
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<tbody>
<tr>
<td><strong>Lebanon</strong></td>
<td>The sustainability of the outcomes is very good according to the TE. The project has established various arrangements with stakeholders to sustain the outcomes, and during the project several stakeholder have initiated activities that support the impact of the Thermal standard in Lebanon. In addition a non-financial incentive has been introduced in the new building law (exemption of a land-use rule for buildings with insulated walls, linked to the thermal standard). This is expected to provide a strong push for (voluntary) adoption of the Thermal standard. The project output is well established in the Lebanese society according to the TE. It is highly likely that, after completion of the project, the voluntary adoption of the thermal standard adoption will continue and the various involved parties will sustain their support for the improvement of the thermal performance of buildings in Lebanon. Various elements are in place to sustain the impact of the Thermal standard development: • The Lebanese Government has created a regulatory benefit for the voluntary adoption of the Thermal standard, in the recently adopted building law. • The Lebanese Government is creating a verification and enforcement structure for several building quality issues. Thermal standard compliance could be added to this structure fairly easily, but arrangements have to be made. • The Order of Engineers and Architects has taken up the dissemination and endorsement, among its members and to society as a whole, of the outputs of the project. This includes that a section of their website is permanently dedicated to the results of the project. • The Order of Engineers and Architects has established an energy efficiency committee, to further to cause of building energy performance within this professional body and in society. • The American University of Beirut and the Notre Dame University have both established research groups for building energy performance, and include the concepts of the thermal standard in their regular education activities. • The Ministry of the Environment plans to include the Thermal standard adoption in their national environmental plan. • Various tools are in place to support the adoption of the Thermal standard by professionals. • The Lebanese Norms Institute (LIBNOR) is processing the Thermal standard via its regular channels, for adoption as a formal Lebanese standard. • Arrangements have been made with the project Lebanese Centre for Energy Conservation and Planning.</td>
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</tbody>
</table>
Planning, to communicate the benefits of better thermal performance to the public, further the market introduction of the Thermal standard and investigate options for financial instruments to support the adoption of the standard.

**Palestine**

There are various elements contributing to the sustainability of the project, but there are also some risks. The training of professionals and the inclusion of building energy efficiency in university training programs seem to have a lasting impact, and are likely to contribute to the further evolvement of building energy efficiency in Palestine in coming years. Teaching at universities now includes aspects of building energy consumption and energy code issues, with various courses in the regular program. This is supported by three MoUs, agreed between the Ministry of Local Government and the three universities in Palestine. Various graduation projects deal with energy efficient building designs, or with research about efficient HVAC systems.

<table>
<thead>
<tr>
<th>C</th>
<th>Institutional framework and governance</th>
<th>Rating: ML</th>
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**Lebanon**

So far, according to the TE, the initiations of the legislative procedure for mandatory adoption of the Thermal standard, and the development of a verification & enforcement system for thermal standard compliance have not been established. Both could be arranged fairly easily by the Directorate – General for Urban Planning, but so far this appears not to have been done. Meanwhile, favorable conditions have been created for subsequent uptake by the market sector. This includes the creation of a non-financial incentive in the recently adopted new building law, which includes a preferential treatment of building designs that apply the thermal standard (main technical output of the project).

**Palestine**

The Palestinian Authority has adopted the Energy Efficient Building Code as a by-law, and has set-up a small building codes unit to follow-up on the Code, specifically to liaise with other Ministries and non-governmental organizations about the implementation of the Code. Further, the unit is to work on the development of new codes in other, related areas. According to the TE the developed energy code has been formally adopted, and as such will have a lasting impact as well. The new building code unit will also continue to contribute to the further impact of the project, after its conclusion.

However, the scope of the institutional follow-up to the project is very limited according to the TE. The adoption of the Code by the Palestinian Authority only covers mandatory adoption for public buildings, but at the moment without a verification and enforcement mechanism, and voluntary adoption for all other buildings, but with an incentive mechanism. The sustainability plan lists many useful activities, which would improve the impact of the project and the continuation of building energy efficiency work after completion of the project. However, given the limited scope and level of detail, and the lack of organizational responsibilities and funding for the planned activities, there is a serious risk that this plan will either be implemented in a very limited way, or not implemented at all. Given this, the sustainability of this project, to create and implement energy codes for (all) buildings, would benefit from further attention.

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<thead>
<tr>
<th>D</th>
<th>Environmental</th>
<th>Rating: ML</th>
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**Lebanon**

According to the TE it can reasonably be assumed that the developed and adopted Thermal standard will lead to significantly reduced building energy consumption, and reduced national greenhouse gas emissions. But the planned adoption as a mandatory standard may be at risk if the political situation in Lebanon doesn’t improve.

**Palestine**

According to the TE it can reasonably be assumed that the Energy Code will lead to a reduced building energy demand, and lower national greenhouse gas emissions. The Energy Code has been adopted as a by-law however, with no enforcement mechanism at the moment.

Buildings that have adopted the Energy Code may get damaged or destroyed during times of
armed conflict.

Provide only ratings for the sustainability of outcomes based on the information in the TE:

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial resources</td>
<td>ML</td>
</tr>
<tr>
<td>Socio political</td>
<td>L</td>
</tr>
<tr>
<td>Institutional framework and governance</td>
<td>ML</td>
</tr>
<tr>
<td>Environmental</td>
<td>ML</td>
</tr>
</tbody>
</table>

4.3 Catalytic role

1. Production of a public good –

Lebanon
Prior to this project, awareness of building energy performance was minimal with the public and politicians, and low even among professionals according to the TE. Now the various stakeholders have been properly sensitized to the concept of a thermal standard, and endorsement has been solicited, and received, from all target groups. The support for the thermal standard process in Lebanon, and the Government and civil society endorsement of it, has been of a very high level. Professional capacities for the adoption of the standard have been built, and this is further supported by various, widely available tools.

Palestine
The project, according to the TE, has resulted in a significant awareness of the involved professionals of energy efficient building design, and a much increased knowledge of appropriate design principles. The project has also provided various institutions with tools to facilitate the implementation of energy efficient building design practice.

2. Demonstration –

Lebanon
There are no demonstration efforts in this project.

Palestine
There are no demonstration efforts in this project. The TE suggests that demonstration projects of buildings that have applied the Energy Code requirements could be useful to disseminate the benefits of the Code to the construction sector.

3. Replication -

Lebanon
During project implementation, according to the TE, experiences and lessons learned have been exchanged with similar ongoing projects in the region (Palestine, Tunisia, Egypt), and with an already completed project (Jordan). This has been beneficial to this project, and probably to the other projects as well.

No formal exchange of experiences is foreseen after this project, although that would certainly be recommended. This project includes some important lessons and can share some very definite good and bad experiences, which are likely to be of great interest to other countries, many of which are developing building energy efficiency regulation, or would benefit from such activity.

Palestine
The project team has established contacts with a sister-project in Lebanon, and has exchanged materials and information. Members of the Lebanese team participated in the several Palestinian meetings, and the Palestinian project team participated in a Lebanese workshop. Further, there have been contacts with related projects in Egypt, Tunisia and Jordan.

4. Scaling up -
Lebanon
According to the TE the Thermal standard has been developed, and has been accepted by the main stakeholders for voluntary adoption now, and mandatory adoption in 2010. Mandatory implementation, however, is not yet arranged. It should be noted that the technical analysis, supporting the standard shows serious flaws which should be corrected and the consequences thereof discussed for the mandatory adoption of the standard.

Palestine
According to the TE, an Energy Efficient Building Code has been prepared in the project, including (fairly modest) provisions for heat loss reductions through ceilings, roofs and walls of buildings. The Code was recently adopted as a by-law, which regulates the adoption as a mandatory standard for new public buildings, and as voluntary for all other buildings.

4.4 Assessment of the project's monitoring and evaluation system based on the information in the TE

<table>
<thead>
<tr>
<th>A. In retrospection, was the M&amp;E plan at entry practicable and sufficient? (Sufficient and practical indicators were identified, timely baseline, targets were created, effective use of data collection, analysis systems including studies and reports, and practical organization and logistics in terms of what, who, when for the M&amp;E activities) Rating: S</th>
</tr>
</thead>
</table>

Lebanon
The M&E Plan in the project document is brief and outlines the basic UNDP procedures. An M&E annex lists several progress reports and reviews planned during implementation. The logical framework has more detailed information including verifiable indicators and means of verification.

Project progress has been closely monitored, by the project management, and by the UNDP country office. According to the TE there was frequent interaction between project management, the executing agency (DG Urban Planning) and the country office regarding implementation issues, changes in the project environment and the outputs, and required adaptations. The objectives of the project have been the focal point during these interactions, and adaptations to the project activities and budgets have been implemented whenever this was required to meet these objectives.

Several tools were applied to support the progress monitoring, including (brief) three-monthly and (extensive) yearly progress reports, summary presentations to the yearly tripartite meetings and presentations to and discussions with the (government / civil society) steering group. The required adaptations to the project design, following this monitoring, have been taken swiftly and correctly. This has provided for a more than adequate oversight (by UNDP, the executing agency and the stakeholders) of the progress of the project.

A formal comparison of the progress achieved against the (originally documented and revised) objectives and performance indicators was included in the yearly progress reports, and was mainly used to document progress (thus: primarily as process monitoring). In general, it would be advisable to regularly perform a full review of the (content of the) results achieved against the logical framework and the content objectives too, to bring all parties on the same level as well as to create a regular (e.g., yearly) moment of reflection on priorities and the assignment of capacities.

Palestine
The M&E Plan in the project document is very brief and only outlines the roles of agencies involved in the project. An M&E annex lists several progress reports and reviews planned during implementation. Both a mid-term and a final (external) evaluation is included in the project design. The logical framework has more detailed information including verifiable indicators and means of verification.

According to the TE project progress has been closely monitored, by the project management,
and by the UNDP office. There has been a frequent interaction between project management, the
executing agency and the country office regarding implementation issues, changes in the project
environment and the outputs, and required adaptations. The objectives of the project have been
the focal point during these interactions, and adaptations to the project activities and budgets
have been implemented whenever this was required to meet these objectives.

According to the TE several tools were applied to support the progress monitoring, including
yearly Project Implementation Reports (PIRs), summary presentations to the tripartite meetings
and presentations to and discussions with the Steering Committee and National Code
Committee. The required adaptations to the project design, following this monitoring, have been
taken swiftly and correctly.

<table>
<thead>
<tr>
<th>B. Did the project M&amp;E system operate throughout the project? How was M&amp;E information used during the project? Did it allow for tracking of progress towards projects objectives? Did the project provide proper training for parties responsible for M&amp;E activities to ensure data will continue to be collected and used after project closure? Rating: S</th>
</tr>
</thead>
</table>

Lebanon

According to the TE a logical framework was developed during project design, but not used
during project implementation. In fact, when revising the project (in response to changing
conditions and monitoring of project progress), the logical framework was not updated, although
the revision was significant and an update would have been advisable. This seriously limited the
usefulness of the framework for further monitoring or management purposes.

The choice not to prepare an updated logical framework (or project document), however, implied
that the project has been missing a formal, integrated framework against which to track progress,
as well as an integrated tool to communicate the goals of the project with stakeholders. This is
unfortunate, and could easily have led to a loss of focus in the project. The fact that it didn’t
(instead, the project has shown a good focus on the goals to be achieved and inclusion of
stakeholders in all stages of the project), should be attributed to the quality of the project
management (including country office oversight) and not to the wisdom of this choice.

Nevertheless, the project management, in good cooperation with the UNDP country office, has
applied good adaptive management, monitoring progress and the conditions in which the project
operated, and soliciting and assessing stakeholder feedback. This was followed up by regular
reviews of the project design, and adaptations of activities and budgets to reflect changes.

Palestine

According to the TE progress was tracked, via the PIRs, against the Logical Framework,
indicating the level of performance achieved so far and – if appropriate – the actions to be taken
to stay on route towards the projects objectives. Difficulties encountered, these were recorded in
these yearly reports as well.

During project implementation, two tri-partite review meetings have taken place, in 2002 and
2004 according to the TE. Yearly meetings were planned, but couldn’t be conducted due to the
unstable political situation in the Palestinian Territories. These meetings served to present and
discuss the results achieved so far, to agree on actions to be taken to help the project move
forward and to agree on extensions of the project.

The TE states that given the relatively small scope and duration of the project, one external
evaluation might have sufficed as well. Due to the security situation, no mid-term evaluation could
be performed at the appropriate time, for this project or any other UNDP/GEF project in the
Palestinian Territories. Instead, a review of the whole portfolio was made by the GEF Secretariat.

C. Was M&E sufficiently budgeted and was it properly funded during implementation? Rating: S

Lebanon

The budget in the project document has $13,700 for M&E out of a total of $494,000 GEF funding
Palestine
The budget has $15,000 for M&E out of a total of $500,000 GEF funding (3%). Actual expenditure at the time of the TE not including the payment for the TE was $17,062 for M&E out of a total of $491,107 (3.5%).

Can the project M&E system be considered a good practice?

The M&E system, both for Lebanon and Palestine components, could be considered a good practice. Its detailing of the indicators for tracking performance could be used by others as an example.

4.5 Lessons
Project lessons as described in the TE

<table>
<thead>
<tr>
<th>What lessons mentioned in the TE that can be considered a good practice or approaches to avoid and could have application for other GEF projects?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lebanon</td>
</tr>
<tr>
<td>The first lesson is in the excellent, intensive involvement of stakeholders throughout the project. Elements of this involvement are a project steering group included all stakeholder groups, and was involved in all decision during the project; the involvement of key national stakeholders in the development of project outputs; and supporting stakeholders to develop their own links and usages of the project outputs. These elements, and the open and informative management and communication style of the project management, explain the success of the stakeholder involvement.</td>
</tr>
<tr>
<td>Secondly, the project was led by two project champions. The Order of Engineers and Architects, a professional body, was an institutional stakeholder, and the project manager has provided personal leadership well beyond her professional duties. Establishing such project champions is crucial for the success of a project.</td>
</tr>
<tr>
<td>The third lesson is that reality checking and technical backstopping on all project outputs is essential. In this project, universities and professional bodies have been very active in providing expert feedback on the reality of project outputs, which has greatly contributed to the quality of the project outputs. The lesson is also that for specific issues, independent (international) advice would be beneficial to improve the overall approach of technical work.</td>
</tr>
<tr>
<td>A last lesson is that an in-depth assessment of national regulatory infrastructure is needed, for the development of new regulatory policies. These policies rely on other regulatory and institutional aspects, and essential issues are easily overlooked during project design. A detailed analysis could reduce this risk, and allow a better inclusion of wider ranging regulatory and institutional aspects.</td>
</tr>
<tr>
<td>Palestine</td>
</tr>
<tr>
<td>A first lesson is in the good, intensive involvement of stakeholders throughout the project. Elements of this involvement are a national code committee included all stakeholder groups that was involved in all decisions during the project; the involvement of key national stakeholders in the development of project outputs; and supporting that stakeholders develop their own links and usages of the project outputs. These elements, and the open and informative management and communication style of the project management, explain the success of the stakeholder involvement.</td>
</tr>
<tr>
<td>Secondly, a project approach should be in line with the capacities of the country. Building energy code development can be very complex work, requiring experience with regulatory policy and with building energy efficiency. Experts in these fields were scarce in Palestine, making a</td>
</tr>
</tbody>
</table>
complex building energy code development difficult. The project management chose to scale
down the complexity of the work, to make the project manageable. An alternative might have
been to first improve the national capacities, and use these for a development process with a
better reflection of the national conditions and a better analysis.

A last lesson is that a better, in-depth assessment of the national regulatory infrastructure is
needed, for the development of new regulatory policies. These policies rely on other regulatory
and institutional aspects, and essential issues are easily overlooked during project design. A
detailed analysis could reduce this risk, and allow a better inclusion of wider ranging regulatory
and institutional aspects.

4.6 Quality of the evaluation report Provide a number rating 1-6 to each criteria based on:
Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory =
3, Unsatisfactory = 2, and Highly Unsatisfactory = 1. Please refer to the "Criteria for the
assessment of the quality of terminal evaluation reports" in the document "Ratings for the
achievement of objectives, sustainability of outcomes and impacts, quality of terminal evaluation
reports and project M&E systems" for further definitions of the ratings.

4.6.1 Comments on the summary of project ratings and terminal evaluation findings
In some cases the GEF Evaluation Office may have independent information collected for
example, through a field visit or independent evaluators working for the Office. If additional
relevant independent information has been collected that affect the ratings of this project,
included in this section. This can include information that may affect the assessment and ratings
of sustainability, outcomes, project M&E systems, etc.

None.

4.6.2 Quality of terminal evaluation report

<table>
<thead>
<tr>
<th>A. Does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives? The TE report on Lebanon component does not present the “significant” project revision in a clear way. The Palestine component is, however, excellent on this dimension.</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Is the report internally consistent, is the evidence complete/convincing and are the IA ratings substantiated? The TE report on Lebanon component is satisfactory on this dimension; the TE report on the Palestine component, however, has some minor inconsistencies.</td>
<td>MS</td>
</tr>
<tr>
<td>C. Does the report properly assess project sustainability and/or a project exit strategy? Yes, project’s sustainability dimensions have been assessed properly. However, no explicit rating has been given.</td>
<td>MS</td>
</tr>
<tr>
<td>D. Are the lessons learned supported by the evidence presented and are they comprehensive? Yes, but they are too general.</td>
<td>MS</td>
</tr>
<tr>
<td>E. Does the report include the actual project costs (total and per activity) and actual co-financing used? The TE assesses financial planning by objective in great detail. The analysis is somewhat limited by because project costs per objective have not been specified in the project document, making a detailed comparison of actual versus planned spending per objective impossible. The TE does not however, assesses costs of M&amp;E.</td>
<td>S</td>
</tr>
<tr>
<td>F. Does the report present an assessment of project M&amp;E systems? The TE is missing an assessment of the costs of M&amp;E.</td>
<td>MS</td>
</tr>
</tbody>
</table>

4.7 Is a technical assessment of the project impacts described in the TE recommended? Please place an "X" in the appropriate box and explain below.

Yes: X  No:
Explain: - A technical assessment of the Thermal standard developed by the project’s Lebanon component in Lebanon is recommended. The standard has been accepted by the main stakeholders for voluntary adoption now, and mandatory adoption in 2010. According to the TE, it should be noted that the current claim is the standard is based on a sound technical / economic analysis, as is good international practice. The analysis by the TE, however, shows serious flaws which should be corrected and the consequences thereof discussed for the mandatory adoption of the standard.

The TE states that overall, the planned technical analyses did not deliver the scope and/or quality that was expected, or – in some instances – did not deliver at all. The environmental and economic analysis was of a limited scope, and is not of good quality, by international standards. National energy or greenhouse gas emission analyses have not been performed and neither an analysis of the social or wider economic impacts of the Thermal standard. It should be noted that the latter two analyses are quite complicated, and it is unlikely that these would have delivered useful outputs within the scope of this project.

While such an analysis is possible for Lebanon, it might be logistically difficult to conduct for Palestine given its precarious security situation.

4.8 Sources of information for the preparation of the TE review in addition to the TE (if any)
Project document, PiR05