Terminal Evaluation Review form, GEF Independent Evaluation Office, APR 2016

1. Project Data

Summary project data			
GEF project ID		3641	
GEF Agency project ID		44099	
GEF Replenishment Phase		GEF-4	
Lead GEF Agency (include all for joint projects)		ADB	
Project name		PAS: Promoting Energy Efficiency in the Pacific	
Country/Countries		Cook Islands, Tonga, Vanuatu, Samoa, Papua New Guinea	
Region		Asia	
Focal area		Climate Change	
Operational Program or Strategic Priorities/Objectives		SP-1	
Executing agencies involved		ADB; Cook Islands: Energy Department; Samoa: Ministry of Natural Resources and Environment; Tonga: Tonga Energy Road Map Implementation Unit, Prime Ministers Department; Vanuatu: Energy Unit, Ministry of Lands and Natural Resources.	
NGOs/CBOs involvement		NA	
Private sector involvement		NA	
CEO Endorsement (FSP) /Approval date (MSP)		February 10, 2011	
Effectiveness date / project start		June 11, 2011	
Expected date of project completion (at start)		June, 2015	
Actual date of project completion		October 23, 2015	
Project Financing			
		At Endorsement (US $M)	**At Completion (US $M)**
Project Preparation Grant	GEF funding	0.2	0.2
	Co-financing	0.49	0.49
GEF Project Grant		5.25	NA
Co-financing	IA own	1	NA
	Government	3.417	0
	Other multi- /bi-laterals	2.5	NA
	Private sector		
	NGOs/CSOs		
Total GEF funding		5.45	3.85
Total Co-financing		7.40	3.99
Total project funding (GEF grant(s) + co-financing)		12.86	7.83
Terminal evaluation/review information			
TE completion date		September 30, 2016	
Author of TE		Michael Trainor	
TER completion date		January 26, 2017	
TER prepared by		Mathias Einberger	
TER peer review by (if GEF IEO review)		Molly Watts	

2. Summary of Project Ratings

Criteria	Final PIR	IA Terminal Evaluation	IA Evaluation Office Review	GEF IEO Review
Project Outcomes	S	MS	NR	MU
Sustainability of Outcomes		ML	NR	ML
M&E Design		NR	NR	MU
M&E Implementation		NR	NR	U
Quality of Implementation		NR	NR	UA
Quality of Execution		NR	NR	UA
Quality of the Terminal Evaluation Report		-	-	MS

3. Project Objectives

3.1 Global Environmental Objectives of the project:

As the project aimed to improve energy efficiency in the target areas (Cook Islands, Tonga, Vanuatu, Papua New Guinea and Samoa), it thereby sought to reduce energy demand and contribute significantly to reduced GHG emissions in these Pacific Island States, which rely greatly on diesel-combustion for energy generation.

The global environmental benefits of significant GHG reductions anywhere in the world are self-evident. The Request for CEO Endorsement further notes that due to the high vulnerability to climate change of these small island states targeted by the project, they show strong interest in addressing this global problem. While they have been and continue to be large beneficiaries of a wide range of energy related projects, most of them are focused on renewable energy, although energy efficiency measures may constitute a more cost-effective approach in this context. (CEO-ER pp. 5-6)

The Request for CEO Endorsement estimated the quantifiable (direct and indirect) emission reduction potential of the project at 642,765 tCO_2. (CEO-ER p. 15)

3.2 Development Objectives of the project:

The project's stated objective is "improved energy security, greater affordability of energy services, and reduced greenhouse gas (GHG) emissions from the power sector of the five participating countries." It aims to achieve this through 4 specific project components:

1. Establishment of comprehensive database of energy use by sector and appliance type in each participating country
2. Mainstreaming of EE practices into government processes, policies, and procedures
3. Implementation of national-scale EE programs in each participating country
4. Public awareness and information sharing

As already mentioned, the targeted island states rely almost exclusively on fossil fuel (diesel) combustion for their energy generation, which not only entails significant GHG emission savings potential from energy efficiency gains, but also tangible social and economic benefits due to volatile and high fuel prices. (CEO-ER pp. 1-2, 5)

3.3 Were there any **changes** in the Global Environmental Objectives, Development Objectives, or other activities during implementation?

Although no explicit changes to the project's objectives and activities were documented, project component 3 was substantially downscaled, from national- to pilot-scale, with a significant adverse impact on project outputs and outcomes. (TE Appendix p. 46)

4. GEF IEO assessment of Outcomes and Sustainability

Please refer to the GEF Terminal Evaluation Review Guidelines for detail on the criteria for ratings.

Relevance can receive either a Satisfactory or Unsatisfactory rating. For Effectiveness and Cost efficiency, a six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess. Sustainability ratings are assessed on a four-point scale: Likely=no or negligible risk; Moderately Likely=low risk; Moderately Unlikely=substantial risks; Unlikely=high risk. In assessing a Sustainability rating please note if, and to what degree, sustainability of project outcomes is threatened by financial, sociopolitical, institutional/governance, or environmental factors.

Please justify ratings in the space below each box.

4.1 **Relevance**	Rating: Satisfactory

The project, with its aim to reduce energy consumption and thereby fossil fuel use and GHG emissions in the power sector of the participating countries through energy efficiency measures (i.e. without a corresponding reduction in the quantity or quality of energy services), was in line with GEF-4 Climate Change Strategic Program 1: Promoting Energy Efficiency in Residential and Commercial Buildings.

The TE also notes that the project was highly relevant to national and regional environmental priorities, plans and policies of the participating countries, which recognized end-use energy efficiency as a least-cost priority measure to effectively address issues related to fossil fuel dependence, high power tariffs, and power sector GHG emissions. The project was further in line with ADB strategies and focus areas. Preceding ADB studies confirmed the potential of EE measures in the participating countries. The project was finally designed to deliver global environmental benefits (i.e. climate change mitigation) through various national-scale energy efficiency programs leading to both direct GHG reductions and indirect ones resulting from an enabling environment to be created by the project. (TE Appendix pp. 4-6)

While the TE does not provide an explicit rating of project relevance, the spirit of its corresponding discussion is clearly that of a highly relevant project. The TER agrees with this assessment and rates relevance as Satisfactory.

4.2 **Effectiveness**	Rating: Moderately Unsatisfactory

The TE does not provide an rating for project effectiveness. This TER rates Effectiveness as Moderately Unsatisfactory, because while many project activities were undertaken, several critical outputs did either not materialize or only on a substantially lower level than initially planned.

The project objective was “improved energy security, greater affordability of energy services, and reduced greenhouse gas (GHG) emissions from the power sector of the five participating countries.” The project laid out 4 components, 7 outcomes, and 13 outputs to achieve this. The project results framework also includes several performance targets or indicators, although it is not always clear how they relate to outputs and outcomes or how these relate to each other.

The TE provides a separate assessment of each project component, rating components 1 and 3 as partly successful and components 2 and 4 as successful. (TE pp. 3-4) The TER agrees with the TE’s assessment of component 1, but disagrees with the assessment of the other three components. A detailed discussion is provided below.

The project’s first component was the establishment of comprehensive database of energy use by sector and appliance type in each participating country. The planned outcome of this component was “improved and continuous monitoring of energy end use data to facilitate the rigorous evaluation of EE programs and interventions.” The two outputs planned under this outcome, namely an ongoing and comprehensive survey fielded on energy end use and major energy consuming appliances, and the establishment of a database in each country to record and regularly monitor energy consumption by sector and appliance, were partially delivered and thus the target of creating a comprehensive database of major energy consuming equipment and appliances in each participating country was partially achieved. The TE notes that a thorough stocktaking regarding data resources and gaps was undertaken under the project and surveys collecting additional data on energy use, household appliances, and street lighting were designed appropriately and executed effectively. The TE however also notes that while the energy end-use database was established using the survey results and existing data sources, its overall architecture and design met only minimum requirements, but did not fully live up to the originally proposed concept in terms of functionality and features. Continuing data updating and data service provision may also be doubtful, according to the TE. (TE Appendix pp. 7-8, 35; CEO-ER pp. 1-2, 20-21)

The second component was the “mainstreaming of EE practices into government processes, policies, and procedures”, with the planned outcomes of mainstreaming EE practices mainstreamed in government energy and environmental policies, developing and adopting suitable guidelines, codes, tariffs, and directives for EE, and developing enhanced institutional capacity to harness EE opportunities in both short and long-term planning horizons. Of five outputs under this component none of the targets were fully achieved and several were not achieved at all.

For Output 2.1: National EE targets incorporated into national energy policies by 2012, the TE notes that EE targets were established under a technically sound and well-articulated methodology for all participating countries. However, none of the relevant countries (excluding Papua New Guinea, which was not GEF-funded under this project) appear to have actually implemented these targets in their national policies by project end. Vanuatu and Tonga had already developed their energy roadmaps

before the project began, but are believed to have received and acknowledged the EE targets developed under the project well. The Cook Islands and Samoa have reviewed them and agreed to incorporate them when their energy policies are next revised. (TE Appendix p. 9) The TE notes that since under Output 2.2: Sales of energy inefficient appliances suppressed through Minimum Energy Performance Standards (MEPS) & labeling programs, activities would have overlapped with the Pacific Appliance Labelling and Standards program, funded by the Australian government and endorsed by 11 Pacific Island Nations, including the project participants, its implementation was cancelled. Since this output was to contribute more than one third to the expected GHG reductions calculated in the Request for CEO Endorsement, its non-materialization significantly impacts the emission reduction benefits attributable to the project. (TE Appendix pp. 9-10) Under Output 2.3: EE of new buildings improved through simple & enforceable EE codes, a study on potential EE technologies relevant for the building sector was undertaken, international best practices were identified and reviewed for EE building codes applicable in the participating countries, rating schemes for hotels and commercial buildings were explored by reviewing relevant international examples, and an EE assessment scorecard and framework was developed. The TE notes that these activities were well aligned with the tasks and requirements specified for this output and even exceeded what could be reasonably expected. However, the related performance indicator specified in the project documents clearly envisioned the establishment of EE building codes for residential, commercial & public buildings, leading to an actual improvement of their EE performance as a result of Output 2.3. Apparently however, this has not occurred by project end, as the EE codes were still in the exploration and development phase. (TE Appendix pp. 10-12) For Output 2.4: Delivery of training programs in energy audits and EE products and services, the TE takes note of a comprehensive energy audit training program targeting the entire energy project development cycle that was developed and implemented in 2013 and 2014. It notes that the training modules were delivered effectively, well received, and achieved good learning outcomes, as evident from the feedback provided by participants. The TE does not mention any trainings pertaining to EE products and services having taken place however. (TE Appendix p. 13) No activities related to Output 2.5: EE Service Providers motivated, organized and incentivized to implement EE activities were carried out under the project according to the TE, since local circumstances and capacities would not support the presence of serious EE service providers. (TE Appendix p. 13; CEO-ER pp. 1-2, 20-21)

Project component 3, the “implementation of national-scale EE programs in each participating country,” contained two outcomes, namely: increased market penetration and implementation of key EE technologies, practices and products in the residential, commercial, tourism, government, and social sectors, and implementation of national EE initiatives across all 5 participating countries, leading to material annual energy savings and GHG emission reductions. The outputs planned to facilitate these outcomes are difficult to assess.

The project envisioned at least 50% of street lighting being upgraded using LED or HPS technology, all incandescent bulbs installed in the residential lighting sector being replaced with CFLs, and energy audits and equipment retrofits in major public buildings, hotels and other non-residential private buildings being carried out. However, the TE notes that while 34 projects pertaining to energy efficiency

in the residential, commercial and public sector, in hotels, and with street lighting were carried out, which were expected to have the potential to achieve 3,204 tCO_2e reductions per year, virtually no reliable M&E verification is available for their actual implementation status. Furthermore, even their theoretical annual savings of 3,204 tCO_2e are significantly (83%) below the contribution that the Request for CEO endorsement initially laid out for this component to provide to overall expected emission reductions. Clearly, activities under component 3 were not implemented on the necessary scale to achieve either the national-scale aspirations or the quantitative targets (e.g. 50% of street lighting upgraded, all incandescent light bulbs replaced) of the project at inception. (TE Appendix pp. 14-28; CEO-ER pp. 1-2, 20-21)

The fourth and last project component, "public awareness and information sharing," foresaw the outcome of "improved public awareness and understanding of EE and the benefits of energy saving policies, activities and technologies."

The TE notes that for its Output 4.1: Campaign to increase awareness of EE by population and key stakeholders, energy savings tips were provided by utilities to their customers only on the Cook Island and in Papua New Guinea. However, customized home energy guides were produced and distributed in each participating country. Yet the number of copies distributed (71,000) hardly matches the specified target indicator of 50% of the population being aware of EE initiatives (Vanuatu alone has more than 250,000 inhabitants). (TE Appendix p. 28) Under Output 4.2: Information on EE best-practices and lessons learned shared between countries and major stakeholders through regular meetings and workshops, three regional workshops were held in Vanuatu, Tahiti and Samoa in 2013, 2014 and 2015. The TE also takes note of the EE Guidelines for hotels, commercial and public buildings, and street lighting in the Pacific that were developed under the project to promote the implementation of EE measures and projects in the participating countries. (TE Appendix pp. 28-29; CEO-ER pp. 1-2, 20-21)

4.3 **Efficiency**	Rating: Unsatisfactory

The TE does not provide a rating for efficiency. This TER rates efficiency as Unsatisfactory. In terms of cost effectiveness, CO_2 abatement costs were higher than expected. As noted above, the project substantially underperformed in the outputs most critical for any tangible, direct impacts on GHG emission. The Request for CEO Endorsement calculated total annual emission reductions of 30,720 tCO_2 (direct) and 12,131 tCO_2 (indirect) from those activities of the project that allowed for such quantifications (i.e. capacity building for instance was excluded). Under an assumed 15-year lifetime of energy efficiency (EE) implementation measures, the project therefore expected to generate a total of 642,765 tCO_2. With the project costing US$12,171,545, this would amount to US$18.94/t CO_2 abatement. (CEO-ER pp. 3, 8-10, 15) Ultimately, direct emission reductions came entirely from component 3: the implementation of national-scale energy efficiency programs, due to the cancellation of the output with the highest expected emission impact: sales of energy inefficient appliances suppressed through Minimum Energy Performance Standards (MEPS) & labelling programs (output 2.2). Component 3 may have contributed direct annual emission reductions of 3,204 tCO_2e, which is significantly lower than expected and has not been verified. Assuming that direct emission reductions of 3,204 tCO_2e actually did occur under component 3 and applying the replication factor and

implementation duration used in the Request for CEO Endorsement of 1.2 and 15 years respectively, the project could have at most led to total lifetime emission reductions of 105,732 tCO_2e (3,204 * 15 + 3,204 * 1.2 * 15). At a total actual project cost of US$7,149,506.59, this would translate to US$67.62/t CO2 abatement costs.

The TE also noted significant delays in procurement and installation of critical project activities, resulting in most sub-projects being completed just before or even after the official completion date in July 2015. (TE Appendix p. 15)

Finally, of the initially planned US$12,171,545 project funds (including both GEF- and co-financing), only US$7,149,506.59 or just over 58% were utilized by project end, which is largely attributable to the great delay in the implementation of several project activities or the cancellation of others.

In light of these considerations, the TE rates the project's efficiency as Unsatisfactory.

4.4 **Sustainability**	Rating: Moderately Likely

The TE discusses risks to the project's sustainability along the four dimensions financial, socio-political, institutional framework and governance, and environmental. The TE does not rate sustainability either as a whole or along the four dimensions and does not make it assessment very clear. In light of the evidence presented, this TER rates sustainability, on balance, as Moderately Likely.

Financial risks: The TE identifies substantial financial risks to the project's sustainability for components 1 and 3. The energy end-use database that was established under component 1 was originally expected to be updated, maintained and improved upon on a continuous basis even after project completion. However, at the time of the TE even the website hosting the database was under threat of becoming inaccessible due to outstanding renewal fees for the domain name and host service registration, let alone updates and improvements of the database. For component 3, the 34 projects implemented severely lacked M&E systems, which the TE mainly ascribes to a lack of financial support, creating significant risk and uncertainty in terms of the attainment and sustaining of project- and program-level outcomes. The TE further notes that the project's heavy reliance on donor agencies and limited funding from recipient governments further jeopardizes the sustainability of outcomes. (TE Appendix pp. 43-44)

Socio-political risks: The TE regards strong political commitment from the participating governments, as well as ownership and support from relevant stakeholders as a major success factor in the timely and qualitatively adequate delivery of several outputs and outcomes. It views the long-term objectives and impacts of the project as being well understood and supported by the public and private sector, as well as the general public. (TE Appendix p. 44)

Institutional framework and governance risks: The TE notes here that the project's implementation generally facilitated improvement of institutional arrangements and the policy and regulatory environment in the participating countries pertaining to energy and climate change mitigation planning. However, it also takes note of the necessity to strengthen government capacity, accountability and

transparency in managing and implementing grant-based programs, as evident from the project's under-performance in components 1 and 3. (TE Appendix p. 44)

Environmental risks: The TE did not identify any environmental risks immediately relevant to the project. It only took note of waste and disposal related issues that could become relevant in the future, as more and more appliances are being replaced due to EE measures. (TE Appendix pp. 44-45)

5. Processes and factors affecting attainment of project outcomes

5.1 Co-financing. To what extent was the reported co-financing essential to the achievement of GEF objectives? If there was a difference in the level of expected co-financing and actual co-financing, then what were the reasons for it? Did the extent of materialization of co-financing affect project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

The TE reports materialized co-financing of US$3.5 million, but does not provide any information about materialization by sources. (TE Appendix p. 41) This constitutes approximately half of the promised project co-financing of US$6,017,000 from the CEO endorsement request. (CEO-ER p. 3)

5.2 Project extensions and/or delays. If there were delays in project implementation and completion, then what were the reasons for it? Did the delay affect the project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

The TE notes significant delays in the procurement and installation of the sub-projects under component 3, which resulted in those activities being completed just before or even after the official end of the project. This has likely contributed or at least accentuated the previously mentioned lack of monitoring within that component. By and large however, the project was carried out in due time, with the expected completion in June 2015 and the actual completion in October 2015. In light of the encountered problems with the (timely) delivery of several key project components, a project extension may have been advisable however.

5.3 Country ownership. Assess the extent to which country ownership has affected project outcomes and sustainability? Describe the ways in which it affected outcomes and sustainability, highlighting the causal links:

The TE provides limited and conflicting information on country ownership. It mentions strong political commitment from the participating governments, but at the same time speaks of limited counterpart funding from the governments. (TE Appendix p. 44) It is possible that while general commitment from the participating governments may have been strong, actual coordination for the concrete materialization of those commitments could have been weak.

6. Assessment of project's Monitoring and Evaluation system

Ratings are assessed on a six point scale: Highly Satisfactory=no shortcomings in this M&E component; Satisfactory=minor shortcomings in this M&E component; Moderately Satisfactory=moderate shortcomings in this M&E component; Moderately

Unsatisfactory=significant shortcomings in this M&E component; Unsatisfactory=major shortcomings in this M&E component; Highly Unsatisfactory=there were no project M&E systems.

Please justify ratings in the space below each box.

6.1 **M&E Design at entry**	Rating: Moderately Unsatisfactory

The TE provides a separate discussion of M&E design at entry but no explicit rating. The TER rates M&E design at entry as Moderately Unsatisfactory. It notes that the Request for CEO Endorsement provided a budgeted M&E plan comprising several specific time-bound activities, including an inception report and workshop, annual project implementation reports, quarterly progress reports, a mid-term evaluation, a final evaluation, and a terminal report. The TE however also notes that no adequate details on baselines, SMART indicators, and data analysis systems were given in the M&E plan. (TE Appendix p. 45)

Furthermore, it appears to this TER, that many if not most of the quantitative indicators specified in the Request for CEO Endorsement were chosen without much (explicit) reflection in terms of realistic achievement and/or measurement. For example, in order to measure attainment of the project's overall development objective and environmental impact, the project documents specified the following indicators to be realized by March 31, 2015:

- Average monthly power consumption by residential customers reduced by 10% relative to baseline of 125 kWh/month
- Average monthly power consumption by commercial customers reduced by 10%
- Average monthly power consumption by public buildings reduced by 10%

(CEO-ER pp. 1-2, 20-21)

No baseline was available at inception or evidently established later on for 2 of these 3 indicators and it was not made clear how the respective targets were chosen or how they would be realistically tracked.

6.2 **M&E Implementation**	Rating: Moderately Unsatisfactory

The TE provides a separate discussion of M&E implementation but no explicit rating. Overall this TER rates M&E implementation as Moderately Unsatisfactory.

The TE notes that the inception report, interim report, quarterly progress reports and annual PIRs were prepared as planned, facilitated the timely tracking of project implementation progress, and were used for adaptive decision-making pertaining to technical, administrative and financial aspects of the project. The TE further notes that neither individual project-level monitoring of installation and performance of the 34 projects under component 3, nor sector-level monitoring of the above mentioned quantitative indicators was carried out.

Although it was originally planned that all projects under component 3 would undergo the full process of data gathering, design, procurement, installation, and monitoring and verification, sizeable delays in procurement and installation were encountered and resulted in most of the sub-projects being

completed just before or even after the official project closing date in July 2015. Therefore, only very limited M&E activities were carried out.

In terms of the perhaps most critical indicators of high-level outcomes of the project (average monthly power consumption of residential and commercial customers and public buildings all reduced by 10%), no data and information related to sectoral power consumption in the participating countries was made available to the TE evaluator despite multiple requests. The TE observed that downscaling of component 3 was not found to have been documented in any of the project's M&E reports. (TE Appendix pp. 15, 36, 45)

7. Assessment of project implementation and execution

Quality of Implementation includes the quality of project design, as well as the quality of supervision and assistance provided by implementing agency(s) to execution agencies throughout project implementation. Quality of Execution covers the effectiveness of the executing agency(s) in performing its roles and responsibilities. In both instances, the focus is upon factors that are largely within the control of the respective implementing and executing agency(s). A six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess.

Please justify ratings in the space below each box.

7.1 **Quality of Project Implementation**	Rating: Unable to Assess

The TE provides no discussion of the quality of project implementation or the specific performance of the implementing agency. The implementing agency of the project was the ADB. While there were local executing agencies in each of the participating countries, namely the Cook Islands Energy Department, the Samoa Ministry of Natural Resources and Environment, the Tonga Energy Road Map Implementation Unit of the Prime Ministers Department, and the Vanuatu Energy Unit of the Ministry of Lands and Natural Resources, the ADB also appears to have fulfilled several coordinating functions in project execution. The TE further notes briefly that the project was implemented by an external consulting firm, the International Institute for Energy Conservation. (TE p. 3, TE Appendix p. 3)

It is therefore not possible to assess the quality of project implementation in an adequate manner for providing a rating.

7.2 **Quality of Project Execution**	Rating: Unable to Assess

The TE provides no discussion of the quality of project execution or the specific performance of the executing agencies. The implementing agency of the project was the ADB. While there were local executing agencies in each of the participating countries, namely the Cook Islands Energy Department, the Samoa Ministry of Natural Resources and Environment, the Tonga Energy Road Map Implementation Unit of the Prime Ministers Department, and the Vanuatu Energy Unit of the Ministry of Lands and Natural Resources, the ADB also appears to have fulfilled several coordinating functions in project execution. The TE further notes briefly that the project was implemented by an external consulting firm. (TE p. 3)

It is therefore not possible to assess the quality of project execution in an adequate manner for providing a rating.

8. Assessment of Project Impacts

Note - In instances where information on any impact related topic is not provided in the terminal evaluations, the reviewer should indicate in the relevant sections below that this is indeed the case and identify the information gaps. When providing information on topics related to impact, please cite the page number of the terminal evaluation from where the information is sourced.

8.1 Environmental Change. Describe the changes in environmental stress and environmental status that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

The TE does not note any significant environmental change during the project. The potential direct emission reductions attributed to project component 3 of 3,204 tCO_2e annually are both small and uncertain. No further information is available on other potential environmental impacts of the project.

8.2 Socioeconomic change. Describe any changes in human well-being (income, education, health, community relationships, etc.) that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

The TE does not note any significant socioeconomic change and no further information is available.

8.3 Capacity and governance changes. Describe notable changes in capacities and governance that can lead to large-scale action (both mass and legislative) bringing about positive environmental change. “Capacities” include awareness, knowledge, skills, infrastructure, and environmental monitoring systems, among others. “Governance” refers to decision-making processes, structures and systems, including access to and use of information, and thus would include laws, administrative bodies, trust-building and conflict resolution processes, information-sharing systems, etc. Indicate how project activities contributed to/ hindered these changes, as well as how contextual factors have influenced these changes.

a) Capacities

The project strengthened local capacities in the participating countries, by establishing an accessible energy end-use database under component 1, the commissioning of studies on international best practices with EE building codes and training programs in energy audits under component 2, the execution of 34 pilot-scale EE projects under component 3, and public awareness and information sharing campaigns under component 4. (TE Appendix pp. 7-29)

b) Governance

The project also contributed to a strengthening of governance frameworks in the participating countries, although it fell short of realizing the actual implementation and adoption of most measures. However, the database established under component 1 and the regional workshops held under component 4 may positively influence regional practices related to information-sharing, cooperation and coordination. Under component 2, EE targets were formulated and EE building codes were explored following international best practices. They were well received by the participating governments, which may yet adopt them officially in their national strategies and legislative frameworks in the future. (TE Appendix pp. 7-13, 28-29)

8.4 Unintended impacts. Describe any impacts not targeted by the project, whether positive or negative, affecting either ecological or social aspects. Indicate the factors that contributed to these unintended impacts occurring.

The TE does not note any significant unintended impacts and no further information is available.

8.5 Adoption of GEF initiatives at scale. Identify any initiatives (e.g. technologies, approaches, financing instruments, implementing bodies, legal frameworks, information systems) that have been mainstreamed, replicated and/or scaled up by government and other stakeholders by project end. Include the extent to which this broader adoption has taken place, e.g. if plans and resources have been established but no actual adoption has taken place, or if market change and large-scale environmental benefits have begun to occur. Indicate how project activities and other contextual factors contributed to these taking place. If broader adoption has not taken place as expected, indicate which factors (both project-related and contextual) have hindered this from happening.

The TE notes that under output 2.3 (energy efficiency of new buildings improved through simple & enforceable EE codes), extensive activities were undertaken to develop a fairly comprehensive set of technically complementary and high quality deliverables, which collectively contributed to creating a solid enabling environment for the development of EE building codes with high relevance and applicability in the context of the participating countries. Additionally, output 2.4 (the delivery of training programs in energy audits), was instrumental for institutional strengthening and sectoral capacity building. Finally the TE notes that the 34 EE projects under component 3 have created significant demonstration effects in the participating countries. The experience gained and the lessons learned from the designing, developing and implementing of those projects will provide a valuable frame of reference for future programs aiming to replicate and scale up EE activities in relevant sectors in the Pacific. (TE Appendix pp. 38-39)

9. Lessons and recommendations

9.1 Briefly describe the key lessons, good practices, or approaches mentioned in the terminal evaluation report that could have application for other GEF projects.

The TE summarizes a set of key lessons related to the achievement of global environmental benefits as follows:

At the conceptualization and design stage of technical assistance projects, a holistic and in-depth background study and stakeholder consultation should be undertaken to a reasonable extent, in order to ensure the value and relevance of major project components. Preceding or parallel regional initiatives and programs in similar areas carried out by other agencies should be identified and assessed, in order to avoid unnecessary overlaps and redundancies, thus increasing efficiency, effectiveness, and sustainability. Along these lines, proposed project tasks and activities should be evaluated critically and properly justified to make sure they are both relevant and valuable.

Performance targets and indicators should be carefully designed to be both realistic and achievable within the scope and timeframe of the project. Special care must be taken when establishing quantitative targets and indicators. In order to avoid over-commitment, the expected deliverables and outputs should be commensurate with the defined inputs, while also considering country-/region-specific circumstances in terms of the policy and regulatory framework, the institutional setup and capacities, market conditions, and technology penetration.

The detailed tasks and requirements in the TORs for consultants should be clearly aligned with the project documents and make explicit reference to performance targets and indicators where appropriate. Furthermore, the consultants' proposed approach and methodology should be critically evaluated by the implementing agency. (TE Appendix p. 39)

9.2 Briefly describe the recommendations given in the terminal evaluation.

The TE does not provide a general set of recommendations, only a specific one related to M&E:

Since the vast majority of the 34 EE projects developed under component 3 were not monitored by the end of the project, the TE considers it necessary to implement a dedicated monitoring and verification program to ascertain their actual installation and operational performance. This would enable an objective and reasonably accurate assessment of the actual output level and outcome achievement, especially in terms of the quantitative indicators for energy savings and GHG emission reductions. The TE further recommends monitoring of the implementation results and assessment of the impacts of the Pacific Appliance Labelling and Standards program that effectively replaced output 2.2 of the project. (TE Appendix p. 46)

10. Quality of the Terminal Evaluation Report

A six point rating scale is used for each sub-criteria and overall rating of the terminal evaluation report (Highly Satisfactory to Highly Unsatisfactory)

Criteria	**GEF IEO comments**	Rating
To what extent does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives?	The report contains a fairly comprehensive assessment of the relevant outcomes, impacts and achievements of the project.	**S**
To what extent is the report internally consistent, the evidence presented complete and convincing, and ratings well substantiated?	The report is not always internally consistent, there are notable gaps in the evidence presented, and the ratings are at times unconvincing and appear inflated.	**MU**
To what extent does the report properly assess project sustainability and/or project exit strategy?	The report briefly discusses project sustainability along its four dimensions but provides no explicit coherent rating. It also does not discuss project exit strategy.	**MS**
To what extent are the lessons learned supported by the evidence presented and are they comprehensive?	The lessons learned and recommendations given by the report are supported by the evidence but could be more comprehensive.	**MS**
Does the report include the actual project costs (total and per activity) and actual co-financing used?	The report includes only sparse and partially conflicting information on the materialization of co-financing.	**U**
Assess the quality of the report's evaluation of project M&E systems:	The report provides a fairly well substantiated discussion of project M&E systems but no explicit rating.	**MS**
Overall TE Rating		**MS**

11. Note any additional sources of information used in the preparation of the terminal evaluation report (excluding PIRs, TEs, and PADs).