GEF EO Terminal Evaluation Review Form for OPS4

1. PROJECT DATA				
			Review date:	
GEF Project ID:	983		at endorsement (Million US$)	at completion (Million US$)
IA/EA Project ID:	1971	**GEF financing:**	$0.75	$0.75
Project Name:	Improving the Energy Efficiency of the Heat and Hot Water Supply	IA/EA own:	0.11	0.11
Countries:	Turkmenistan	Government:	0.40	0.40
		Other*:	0.45	0.45
		Total Cofinancing	0.96	0.96
Operational Program:	OP#5: Removal of barriers to energy efficiency and energy conservation; Focal Area: Climate Change	**Total Project Cost:**	$1.71	$1.71
IA	UNDP	Dates		
Partners involved:	Ministry of Nature Protection	Effectiveness/ Prodoc Signature (i.e. date project began)		March 2001
		Closing Date	Proposed: March 2004	Actual: Dec. 2006
Prepared by: Pallavi Nuka	Reviewed by: Neeraj Negi	Duration between effectiveness date and original closing (in months): 36 months	Duration between effectiveness date and actual closing (in months): 60 months	Difference between original and actual closing (in months): 24 months
Author of TE: Grant Ballard-Tremeer		TE completion date: February 2008	TE submission date to GEF EO: April 2008	Difference between TE completion and submission date (in months): 2 month

* Other is referred to contributions mobilized for the project from other multilateral agencies, bilateral development cooperation agencies, NGOs, the private sector and beneficiaries.

2. SUMMARY OF PROJECT RATINGS AND KEY FINDINGS

Please refer to document GEF Office of Evaluation Guidelines for terminal evaluation reviews for further definitions of the ratings.

Performance Dimension	Last PIR	IA Terminal Evaluation	IA Evaluation Office evaluations or reviews	GEF EO
2.1a Project outcomes	**MU**	**MU**	**N/A**	**MU**
2.1b Sustainability of Outcomes	**N/A**	**MU**	**N/A**	**U (4)**
2.1c Monitoring and evaluation	**N/A**	**MS**	**N/A**	**MU**
2.1d Quality of implementation and Execution	**S**	**MS**	**N/A**	**MU**
2.1e Quality of the evaluation report	**N/A**	**N/A**	**MS**	**S**

2.2 Should the terminal evaluation report for this project be considered a good practice? Why? Yes, the terminal evaluation report is provides a clear and well-organized assessment of project design, relevance, implementation and outcomes.
2.3 Are there any evaluation findings that require follow-up, such as corruption, reallocation of GEF funs,

mismanagement, etc.?
No such findings mentioned.

3. PROJECT OBJECTIVES

3.1 Project Objectives

a. What were the Global Environmental Objectives of the project? Were there any changes during implementation?

The global environmental objective of the project was to reduce GHG emissions by removing existing barriers to the energy efficient improvement of heat and hot water supply systems in Turkmenistan.

There were no changes in global environmental objectives during project implementation.

b. What were the Development Objectives of the project? Were there any changes during implementation? (describe and insert tick in appropriate box below, if yes at what level was the change approved (GEFSEC, IA or EA)?)

The project had two main development objectives:

- To identify opportunities for, to enhance public awareness of, and to strengthen the capacity of municipalities to establish sustainable energy policy.
- To establish a supportive institutional and financial framework for implementing the identified opportunities at the national level.

As described in the project document, the five components of the project were to focus on:

(i) Enhancing the technical capacity of local engineers to prepare master plans and feasibility studies for energy efficiency improvements in heat and hot water supply systems.
(ii) Raising the awareness of the general public and decision makers regarding energy efficient heating technologies.
(iii) Establishing new institutional and financial incentive mechanisms to reduce energy demand, supported by legal and regulatory changes
(iv) Building the capacity of local governments to structure financing for investments in energy efficient heating technologies.
(v) Two pilot projects conducted in the city of Turkmenabad to test and validate new technologies.

There were no changes in the development objectives of the project during implementation.

Overall Environmental Objectives	Project Development Objectives	Project Components	Any other (specify)

c. If yes, tick applicable reasons for the change (in global environmental objectives and/or development objectives)

Original objectives not sufficiently articulated	Exogenous conditions changed, causing a change in objectives	Project was restructured because original objectives were over ambitious	Project was restructured because of lack of progress	Any other (specify)

4. GEF EVALUATION OFFICE ASSESSMENT OF OUTCOMES AND SUSTAINABILITY

4.1.1 Outcomes (Relevance can receive either a satisfactory rating or a unsatisfactory rating. For effectiveness and cost efficiency a six point scale 6= HS to 1 = HU will be used)

a. Relevance (of outcomes to focal areas/operational program strategies and country priorities) Rating: S

A.1. What is the relevance of the project outcomes/results to:

(i) the national sustainable development agenda and development needs and challenges?

The heat and hot water supply systems in Turkmenistan utilize obsolete technologies and are extremely energy inefficient. In-country resources to maintain or rehabilitate these systems are insufficient. Local municipalities,

charged with managing heat supply, lack the expertise to improve these old, outdated systems. This project will support national initiatives to formulate a strategy and framework for reliable and efficient district heating systems.
(ii) the national environmental framework, agenda and priorities?
Improving the energy efficiency of the municipal heat and hot water supply systems has been identified as a priority measure to reduce GHG emissions in the first national communication to the UNFCCC. Legislation on energy-saving measures was developed in 1998 and is now under consideration for approval. This legislation will establish the legal, social and ecological basis for energy savings in the different sectors of the economy. This project is relevant to national efforts to reduce GHG emissions in the residential and district heating system.
(iii) the achievement of the GEF strategies and mandate?
Project outcomes are relevant the GEF focus on climate change mitigation.
(iv) the implementation of the global conventions the GEF supports (countries obligations and responsibilities towards the convention as well as the achievement of the conventions objectives)
This project supports Turkmenistan's obligations to reduce GHG emissions under the UNFCCC.
A2. Did the project promote of International (Regional and / or Global) Cooperation and Partnership[1]
This project had no regional linkages.
b. Effectiveness **Rating: MU**
This project has been successful in identifying opportunities for implementing sustainable energy policy, but largely ineffective in establishing the institutional and financial frameworks for doing so. Two pilot projects were launched in Turkmenabad to test decentralized heating systems. The data from these pilot projects has been analyzed and published and feasibility studies have been conducted in 9 participating municipalities. Municipal Master Plans for new heating and hot water supply systems have been drafted and endorsed, providing the basis for the long-term development of local, energy efficient heat and hot water services. Local capacity to manage decentralized heating systems has also been enhanced through training and GIS applications. The project has conducted a survey of public attitudes to heating and heat supply in the participating cities. The terminal evaluation notes that "this was an excellent and well-executed action, and represents the first such survey of attitudes in Turkmenistan." Results of this survey were incorporated into a draft National Heating Strategy that introduces a consumption based billing structure for heat and hot water supply. Despite the local capacity building and drafting of National Strategy, the project has done little to establish the institutional and financial framework necessary for investments in energy efficient technology. The terminal evaluation report notes "the project *design* inadequately addressed the building of local capacity (working principally with Local Project Coordinators who were not energy specialists, and with no institutionalizing of the capacity building activities), and did not engage with the main stakeholders in the institutional and financing areas." Central government review of the National Heating Strategy is pending, and none of the investment proposals for rehabilitating municipal heating systems are funded. Although the project document recognized this lack of investment funding as a real risk, the only remedy found was to develop and distribute a Guidebook on project preparation and financing to municipalities.
c. Efficiency (cost-effectiveness) **Rating: Unable to assess.**
Based on information in the project document, the aim was to reduce GHG emissions by 0.01 MtC/year (through the two pilot projects) until 2010; and then gradually raise the level of reductions to 0.2-0.5 MtC/year by the year 2020. However, the project had no clear system for tracking GHG emissions avoided due to project activities and there are conflicting estimates of actual CO2 reduction levels. According to the terminal evaluation report, an estimated 26 tons of CO2 were avoided from heating season 2005-6 to 2006-7 (from activities in the monitored boiler house in Mary city). However, the 2008 PIR mentions that 360,056 tons of CO2 (100,156 tons of C) were avoided in year 2006-7 due to changes in management practices in response to monitoring. Additional information is needed to assess cost-effectiveness.
d. To what extent did the project result in trade offs between environment and development priorities / issues (not to be rated) – this could happen both during the designing of the project where some choices are made that lead to preference for one priority over the other, and during implementation of the project when resources are transferred from addressing environmental priorities to development priorities and vice versa. If possible explain the reasons for such tradeoffs.
There were no trade offs noted between environment and development priorities in the design or implementation of the project.

[1] Please consider for regional and global project only

4.1.2 Results / Impacts[2] (Describe Impacts) (please fill in annex 1 – results scoresheet and annex 2 – focal area impacts (against GEF Strategic Priority indicators, where appropriate and possible)

Turkmenistan has substantial gas resources and there is very little national level priority given to reducing domestic consumption. Efficiency gains are of no direct interest to consumers since energy and heat prices are so low. The project has had some positive results in increasing local government capacity with regard to energy efficient heating systems, but it has had little impact on national government policy or on broader public awareness.

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. Use a four point scale (4= Likely (no or negligible risk); 3= Moderately Likely (low risk); 2= Moderately Unlikely (substantial risks) to 1= Unlikely (High risk)). The ratings should be given taking into account both the probability of a risk materializing and the anticipated magnitude of its effect on the continuance of project benefits.

a. Financial resources	**Rating: U (1)**
The project was not successful in identifying and leveraging co-financing following the end of the project. Without the adoption of a national heating strategy, financial resources will not be available to sustain project outcomes/benefits. The Master Plans could provide the basis for accessing carbon finance, provided other barriers can be overcome and the needs for capital costs addressed, and could contribute to overall project sustainability.	
b. Socio-economic / political	**Rating: MU (2)**
Given the current impasse between the UNDP and the Ministry of Foreign Affairs, and the lack of access and experience of the UNDP to relevant stakeholders in the Turkmenistan gas / heating sector, there insufficient stakeholder awareness and support for the project's long term objectives of the. A number of project stakeholders, in particular the Project Manager have a high level of interest in continuing working in the sector and the project has provided a number of resources which can contribute to future government policy.	
c. Institutional framework and governance	**Rating: MU (2)**
The project's recommendations to national and local authorities as embodied in the conceptual document on a 'methodology of tariffs', analysis of legal regulatory and institutional framework, master plans, financing guide, and the national strategy are highly relevant, but in the absence of the adoption of the national strategy the applicability is very limited.	
d. Environmental	**Rating: L**
The project does not face any environmental risks.	
e. Technological	**Rating: L**
No technological risks were identified. It is unlikely that the new energy efficient heating systems proposed by the project will become technologically obsolescent.	

4.3 Catalytic role[3]

a. INCENTIVES: To what extent have the project activities provide incentives (socio-economic / market based) to contribute to catalyzing changes in stakeholders
Project activities have not provided incentives for change.
b. INSTITUTIONAL CHANGE: To what extent have the project activities contributed to changing institutional behaviors
Apart from the drafting of the national strategy, there was no explicit impact on institutional behaviors.
c. POLICY CHANGE: To what extent have project activities contributed to policy changes (and implementation of policy)?
The project has conducted some in-depth policy analysis on opportunities for improving energy efficiency in the heating and hot water supply system. Recommendations and strategy documents have been produced, but there has been no policy change.
d. CATALYTIC FINANCING: To what extent did the project contributed to sustained follow-on financing from Government and / or other donors? (this is different than co-financing)

[2] Please consider direct and indirect global environmental results; any unexpected results; local development benefits (including results relevant to communities, gender issues, indigenous peoples, NGOs and CBOs)

[3] Please review the 'Catalytic Role of GEF: How is it measured and evaluated – A conceptual framework' prior to addressing this section.

The project has no guaranteed follow-on funding.
e. PROJECT CHAMPIONS: To what extent have changes (listed above) been catalyzed by particular individuals or institutions (without which the project would not have achieved results)?
No such champions mentioned in the terminal evaluation report.

4.4 Assessment of processes and factors affecting attainment of project outcomes and sustainability.

a. Co-financing. To what extent was the reported cofinancing (or proposed cofinancing) essential to 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 it did, then in what ways and through what causal linkages?
The anticipated co-financing of $0.96 M did arrive on time. The Danish government contributed $0.45 M, UNDP $0.11 M, and the government $0.40 M. Government co-financing may have been partially in-kind – the Municipalities, for example, provided office space for the Local Project Coordinators.
b. 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 it did, then in what ways and through what causal linkages?
The project suffered from many delays, due to poor choice of executing agency and a slow hiring process, which have hindered progress and reduced project effectiveness. (i) Although approved by the GEF in March 2001, the project document was signed only in July 2002 due to difficulty in identifying a national counterpart and executing agency at the central government level. (ii) Practical implementation of the project only began in February 2003 due to delays in project team staffing. (iii) The executing agency switched in April 2004 from the Ministry of Energy to the Research Institute of Methodology and Municipal Services Development under the Cabinet of Ministers of Turkmenistan, because it was discovered that the original Project Management and executing agency were not suitable executors for the project. The project was effectively closed for 6 months between July and December 2004. (iv) There were significant delays in the appointment of the International Technical Advisor (filled in mid-April 2004), which have delayed the drafting and adoption of Master Plans. (v) Procurement of equipment for heat monitoring was delayed until June 2005. As a result, monitoring and assessment of the Turkmenabad pilot was not completed by project closing.
c. 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.
Country ownership of this project has been lacking. In addition to the delays in finding an executing agency and staffing the project team, the central government has been slow to review the National Heating Strategy (NHS), which is the main output of this project. The sustainability of this project depends on central government approval of the NHS. Local capacity-building has also been limited due to extensive use of international consultants. Many project activities were carried out by the International Technical Advisor, RAMBOLL, although the Research Institute was the executing agency for the project. This dependence on outside consultants means that local expertise has not been significantly enhanced.

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

a. M&E design at Entry Rating (six point scale): U
The M&E plan at entry contains a timeline for implementing activities and provisions for monitoring and reporting. There is no logical framework for measuring progress towards outputs and outcomes. A list of indicators is included in the project document, but the indicators are poorly defined and it is not clear how they link to outputs/outcomes.
b. M&E plan Implementation Rating (six point scale): U
The terminal evaluation report notes "there is no evidence that the logical framework was used as a management tool during project implementation, and the project team did not appear familiar with the logical framework given in the project document." For example, the impact of pilot activities on CO2 emissions reduction was not tracked from the start of the project, although this would have been a good measure of progress towards environmental objectives. Detailed work-plans were drafted by the project team on a quarterly basis, but the proposed activities did not link clearly to the objectives in the ProDoc.
b.1 Was sufficient funding provided for M&E in the budget included in the project document? Yes, the proposed budget contained a line for M&E
b.2a Was sufficient and timely funding provided for M&E during project implementation? Unable to assess.
b.2b To what extent did the project monitoring system provided real time feed back? Unable to assess.
b.3 Can the project M&E system (or an aspect of the project M&E system) be considered a good practice? If so,

explain why. No, the projects M&E system was poorly designed and implemented.

4.6 Assessment of Quality of Implementation and Execution

a. Overall Quality of Implementation and Execution (on a six point scale): MU

b. Overall Quality of Implementation – for IA (on a six point scale): MU

Briefly describe and assess performance on issues such as quality of the project design, focus on results, adequacy of supervision inputs and processes, quality of risk management, candor and realism in supervision reporting, and suitability of the chosen executing agencies for project execution.

The implementing agency for this project was the UNDP. The project design was identified as having two main flaws. One was that the project inadequately addressed the local capacity building by working solely with Local Project Coordinators, who were not energy specialists. And the second was that the project did not implicate financial and institutional stakeholders.

Based on information in the terminal evaluation report, UNDP oversight of the project was inconsistent and not sufficiently focused on results. There were delays in approving procurement requests and appointment of the International Technical Advisor was delayed by a year. The project was audited annually, but expenditure was tracked by input, not by activity, and thus expenditures by activity, output and objective cannot be assessed. Two visits on behalf of the UNDP regional office were made to the project in February 2003 and May 2004 to support the UNDP Turkmenistan office. According to the terminal evaluation report, "These were at crucial times and appear to have been valuable, although not all recommendations were taken up in project implementation."

c. Quality of Execution – for Executing Agencies[4] (rating on a 6 point scale) MU

Briefly describe and assess performance on issues such as focus on results, adequacy of management inputs and processes, quality of risk management, and candor and realism in reporting by the executive agency.

The initial executing agency for this project, the Ministry of Energy, was found to have weak links to the heating sector. In 2004, the project was transferred to the Research Institute for Municipal Infrastructure Development (RIMID) under the Cabinet of Ministers. The project management team at the RIMID largely relied on the international consultant, RAMBOLL, for most of the project's substantive outputs. According to the terminal evaluation, there was over-reliance on in the international consultant. A 2004 management report identified this problem noting: "As regards the Project Management Unit (PMU), it is encouraged to take a more active role in initiating and clarifying the things at the local level so as to facilitate effective implementation and successful completion of the project activities. Although many of the activities have been pending the selection of the ITA, there are many others, which could have been started even without the direct involvement of the ITA… In general, it will be crucial for the sustainability and success of the project that the PMU fully understands the overall objectives of the project and actively initiates and promotes measures that support those objectives."

Project management prepared quarterly reports detailing activities and outputs. According to the terminal evaluation, they were also able to adapt the proposed activities to meet implementation challenges. However, the focus on results, outcomes, and sustainability was poor.

5. LESSONS AND RECOMMENDATIONS

Assess the project lessons and recommendations as described in the TE

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

1. The difficulties in identifying local stakeholders during project execution underline the importance of carrying out a thorough institutional review during project design.

2. Whether projects are logically designed or not, project managers should produce and maintain a logical framework with logical structure aimed as delivering project objectives, objectively verifiable indicators which can track delivery of activities and outputs, and risks/assumptions. These are essential management tools. Project management approach used should focus on both day-to-day activities, as well as bigger picture.

3. Project teams should be creative and flexible, and the UNDP should make efforts to ensure that conceptual ideas

[4] Executing Agencies for this section would mean those agencies that are executing the project in the field. For any given project this will exclude Executing Agencies that are implementing the project under expanded opportunities – for projects approved under the expanded opportunities procedure the respective executing agency will be treated as an implementing agency.

given in the project brief / document are truly relevant at the time of implementation.

4. Building institutional as well as technical capacity is crucially important for ongoing sustainability. However in a development context where institutions may be changed at any time such as in Turkmenistan, it is essential to engage with as many stakeholders as possible so that there is sufficient awareness throughout the sector. The right institutional arrangements are a key to ensuring that project activities will continue after the end of the project. Administrative barriers (take significantly longer to address in new markets than usually expected.

5. Policy development work requires prior and ongoing government willingness to address policy issues: where government are keen to develop policies on a particular subject, the project can effectively assist, but where this willingness does not exist, significant ground work may be needed to lay the foundations for future policy development.

6. Where governments are not already intending to develop policies and legislation, projects cannot guarantee to produce results. The timing of policy and legislation development cannot be programmed into a project workplan.

7. Sufficient resources should be allocated to monitoring and analyzing project impacts. This will assist daily management. Baseline monitoring is also essential for the determination of impacts.

8. Efforts should be taken to ensure local ownership in every project activity. International consultants should be in a support not a lead role. If local capacity does not exist to lead activities, this capacity should be built as a matter of urgency.

b. Briefly describe the recommendations given in the terminal evaluation

1. Ongoing efforts in the heating sector will be needed to capitalize on the achievements of the project. There is a real danger that the advances achieved in the project will be lost without follow-up activities. A least-cost option might be to work with the Polytechnic University to develop further the training materials and offer courses to students and possibly other stakeholders. A training institute established within the University – possibly with a broader remit such as "Capacity building for Municipal Services and Management" could make cost effective use of the resources developed under the project. If possible this activity should be included in follow-up UNDP activities.

2. UNDP should make every effort to ensure that the Ministry of Foreign Affairs passes on the national strategy to relevant stakeholders. Ongoing efforts to get the draft national strategy into the hands of people within the gas sector are strongly recommended.

3. For future activities addressing the heating and hot water sector, stakeholders from the Ministry of Gas, state concerns like Turkmengas, and the Ministry of Finance should, if possible, be involved, since they have both the resources and the incentive to improve energy efficiency in this sector.

6. QUALITY OF THE TERMINAL EVALUATION REPORT

6.1 Comments on the summary of project ratings and terminal evaluation findings based on other information sources such as GEF EO field visits, other evaluations, etc.

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 document GEF Office of Evaluation Guidelines for terminal evaluations review for further definitions of the ratings. Please briefly explain each rating.

6.2 Quality of the terminal evaluation report	Ratings
a. To what extent does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives? Assessment of project impacts and outcomes is detailed and comprehensive.	S
b. To what extent the report is internally consistent, the evidence is complete/convincing and the IA ratings have been substantiated? Are there any major evidence gaps? No evidence gaps were noted and the report is internally consistent. Ratings substantiate IA ratings.	S

c. To what extent does the report properly assess project sustainability and /or a project exit strategy? The report assesses various risks to sustainability, but an exit strategy is not discussed.	S
d. To what extent are the lessons learned supported by the evidence presented and are they comprehensive? Lessons learned stem from the evidence presented on implementation.	S
e. Does the report include the actual project costs (total and per activity) and actual co-financing used? Co-financing contributions are mentioned but there is no list of costs.	MU
f. Assess the quality of the reports evaluation of project M&E systems? The evaluation of the project's M&E system design and implementation was comprehensive.	HS

7. SOURCES OF INFORMATION FOR THE PRERATATION OF THE TERMINAL EVALUTION REVIEW REPORT EXCLUDING PIRs, TERMINAL EVALUATIONS, PAD.

8 Project stakeholders and Key Contacts (Names, addresses, emails etc – mandatory for field visit countries)

9. Information Gaps (for Field visit countries only)
