GEF EO Terminal Evaluation Review Form for OPS4

1. PROJECT DATA				
			Review date:	March 2,2009
GEF Project ID:	1318		**at endorsement (Million US$)**	**at completion (Million US$)**
IA/EA Project ID:	1945	**GEF financing:**	$0.97	$0.99
Project Name:	Reducing Greenhouse Gas Emissions through the Use of Biomass Energy in Northwest Slovakia	IA/EA own:	$0.00	$0.00
Country:	Slovakia	Government:	$4.30	$5.82
		Other*:	$3.04	$3.44
		Total Cofinancing:	$7.34	$9.26
Operational Program:	OP6: Promoting the Adoption of Renewable Energy by Removing Barriers and Reducing Implementation Costs	**Total Project Cost:**	$8.34	$10.25
IA	UNDP	**Dates**		
Partners involved:	Slovak Ministry of Environment (EA), EU Program LIFE Environment, Austrian Env. Fund through KKA, Dexia banka Slovensko, BIOMASA (local energy supplier)	**Effectiveness/ Prodoc Signature (i.e. date project began)**		June 1, 2003
		Closing Date	**Proposed:** March, 2007	**Actual:** December 31, 2006
Prepared by: Meg Spearman	**Reviewed by:** Neeraj Negi	**Duration between effectiveness date and original closing (in months):** 30 months	**Duration between effectiveness date and actual closing (in months):** 27 months	**Difference between original and actual closing (in months):** 3 months *early*
Author of TE: Ivan Mojik Director, Department of Air Protection Ministry of the Environment of the Slovak Republic		**TE completion date:** Sept-Oct 2007	**TE submission date to GEF EO:** November 14, 2007	**Difference between TE completion and submission date (in months):** 1 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	S†	HS*	---	S
2.1b Sustainability of Outcomes	---	MS*	---	ML
2.1c Monitoring and evaluation	Not specified	S*	---	UA

2.1d Quality of implementation and Execution	HS†	S*	---	S
2.1e Quality of the evaluation report	---	---	---	S

† on a 6 point scale of HU, U, MU, MS, S, HS
* on a 4 point scale of U, MS, S, HS

2.2 Should the terminal evaluation report for this project be considered a good practice? Why?
Yes, the TE falls within GEF Agency Guidelines for conducting Terminal Evaluations; it covers the assessment of project design and execution, it indicates methodologies used, and provides a candid, insightful and adequately detailed exposition on project's performance. The two areas on which it was lacking information were in relation to the M&E system and execution, and the role & performance of the Implementing Agency (UNDP) (aside from related but general project recommendations & lessons-learned).

2.3 Are there any evaluation findings that require follow-up, such as corruption, reallocation of GEF funds, mismanagement, etc.?
No.

3. PROJECT OBJECTIVES

3.1 Project Objectives

a. What were the Global Environmental Objectives of the project? Were there any changes during implementation?
According to the TE, "The objective of this UNDP/GEF medium size project was to reduce greenhouse gas emissions through promoting the adoption of renewable energy sources, specifically biomass."

Specifically, the project document states the objectives as:
1. To create a commercial wood pellet market in the region by constructing a Central Processing Unit (CPU) for pellet production from wood waste.
2. To provide a replicable, economically viable, and environmentally friendly source of heat in 44 schools and public buildings by replacing existing coal/coke boilers with pellet-fired boilers.
3. To replicate the project in neighboring municipalities and in at least one other region of Slovakia.

There were no changes during 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 TE states that the "project supported the creation of a sustainable market of biomass energy for heat generation in Northwest Slovakia."

Specifically, the project document states the following development-related objectives:
a) Decreased operating costs by using wood pellets as opposed to natural gas, coal, or coke. (vs average present price of $US 6.33/GJ for coke, cola or natural gas, wood pellet heating costs calculated in the feasibility study are $US 5.73/GJ)
b) Modernization of old heating systems.
c) Demand side energy efficiency improvements. (no targets)
d) Strengthening of local economies and the economy of the Slovak Republic.
e) Creation of competition in the heat market.
f) Decrease in Slovak dependence on fuel imports.
g) Increase in general awareness concerning the use of alternative energy sources.

There were no changes 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	Exogenous conditions changed, causing	Project was restructured because original	Project was restructured because of	Any other (specify)

sufficiently articulated	a change in objectives	objectives were over ambitious	lack of progress	

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?

According to the project document, the wood waste market of Slovakia is largely underdeveloped, and with the exception of energy from domestic wood sources, energy demands are met with imported fuels. The Zilina and Trencin regions create 200,000 tons of wood waste, only 25% of which is used; it would be possible to use 18,000 tons of this annually (37% of all wood waste in the area), in the form of wood pellets, without increases in timber harvesting. The TE states that the government approved a base frame for renewable energy source development in 2003.

Furthermore, the TE states that, "at the time the project was designed and approved, little existed in Slovakia in terms of actual actions at the policy and strategic level in favor of biomass market development." Thus, the project was, "in effect a demonstration pilot, which received significant government support considering the limited resources available for renewable energy conversion and development at the time."

(ii) the national environmental framework, agenda and priorities?

The project document states that the "Slovak Republic has indicated its intention to reduce GHGs both as a party to the UNFCCC and as a signatory of the Kyoto Protocol. This project will also contribute to the use of alternative energy sources and energy efficiency, which are two areas of the Regional Energy Concept of the Slovak Government. Finally, the Slovak Ministry of Economy has publicly stated that its commitment to the areas addressed in the project by establishing the Program for the Support of Energy Efficiency and the Use of Alternative Energy Sources on December 1, 1999." The project intended improvements in energy efficiency and use of clean energy also supports the process of accession to the European Union, "one of the highest priorities" of the Slovak Republic.

(iii) the achievement of the GEF strategies and mandate?

This project is highly significant to GEF's strategic priority for (CC4-) for the "productive use of renewable energy" and also to CC OP5 "removal of barriers to energy efficiency and energy conservation." As stated in the project document, the project aims to "address institutional, financial and informational market barriers" to "create a sustainable market for biomass energy for heat generation in Northwest Slovakia."

According to the project document, Slovakia produces approximately 0.2% of global GHG emissions, or, at 8tons/year, is a country among the highest amount of CO2 emissions per capita, globally (twice the worldwide average, according to the TE). Also, due to combustion of fossil fuels in energy production, industrial processes and transport, air pollution is a "major issue."

(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)

The TE states that under the Kyoto Protocol, "Slovakia has agreed to reduce its aggregate emission of all six GHGs by 8% from the level of the 1990 base year during the first commitment period from 2008 to 2012." The project was highly relevant to national objectives under Kyoto and toward commitments to the UNFCCC in that it aimed to reduce GHG emissions through the reduction of fossil fuel consumption from (wood pellet) boiler reconstruction, and through increased efficiency.

A2. Did the project promote of International (Regional and / or Global) Cooperation and Partnership[1]

The project document states that "energy is a component of the Regional Operational Program for the Zilina and Trencin Regions," but the project does not contain any explicit component to promote regional cooperation. Beyond cooperation between the Danish government, GEF and the Biomasa Association, the TE and project document does not detail any promotion of international cooperation. Last, the TE indicates Slovakia's interest in admission to the EU as a rationale for increasing the use of renewable energy.

b. Effectiveness **Rating: S**

The TE states the following progress toward attaining targets in the three main outcomes as of June 2007:

"Expected Outcome no. 1: A sustainable wood pellet market in the region through the construction of a Central processing Unit (CPU) for wood-pellet production, a transport system for wood-waste residue supply and pellet delivery, and a sufficiently large customer base to ensure adequate cash flow."

[1] Please consider for regional and global project only

a)Reutilization of wood waste directly from the region: The project was using 20,000tons annually; 2000 tons more than the 18,000tons annual target
b)The CPU is constructed, under operation and produces pellets: Reported tonnage was 11,420; the project target was 12,000 tons annually
c) Long-term contracts for sales of heat, pellets and woodwaste residue purchase (no original target set): BIOMASA confirms about 30 contracts with sawdust suppliers, 25 contracts for heat production and about 30 regular purchasers of pellets.
d)New job creation: 33 jobs were created; original target was 16

"Expected Outcome number 2: Provision of a replicable, economically viable, and environmentally friendly source of heat in 44 schools and public buildings by replacing existing coal/coke boilers with wood-pellet fired boilers"
a) Installation of modern, high quality technology combusting wood pellets: BIOMASA reported the installation of 44 new pellet automatic boilers, which together replaced 100 obsolete boilers in 54 old coal/coke boilers.
b)Operation of pellet boilers and delivery of heat to final consumers: All 44 boilers were in operation
c)Energy efficiency measures and improvements in heating systems and heated buildings: No targets were set, but "energy efficiency measures, modernization and regulations of heating systems were realized in the majority (80%) of the boiler rooms and in connected buildings (regulating valves, windows, doors, and radiators replacement, additional thermal outside insulation). New heating operational regulations were introduced. All this leading to better heating quality in buildings."
d)Decreased operational heating costs: Target was set at 5%; without clear baselines, the TE was unable to assess whether this target was reached. However, managers reported at least a 5% reduction of cost through "reduced maintenance and associated staffing costs, reduced pollution, increased quality of heating and stable heat supply." Also Biomasa reported decreased costs ranging from 7-45% where baselines were available.

"Expected Outcome number 3: Contribution to the increasing use of biomass as a fuel source for heating, in order to increase the share of the renewable sources in Slovakia energy consumption"
a) Meeting the wood pellet demand in Slovakia: Target was 15 new consumers; the last APR reported 25 new purchasers of heat from biomass within the project and 12 new consumers in small pilot boilers installed through the project. There was also evidence of at least 44 new regular purchasers of pellets outside the project.
b) Increased demand on wood technology among small scale consumers – households: Target was set at 2 new wood pellet consumers to replace coal boilers; the last PIR confirmed 12 new consumers who replaced their boilers within the project and an additional confirmed (approx) 20 outside the project.

In addition, the TE outlines additional evidence of a growing market for biomass in the region. The estimated total production capacity in Slovakia was set at 72,000 tons/year in 2006, with actual production at 45,000. The consumption stood at 9,000, suggesting that the industry was largely export-oriented. However, at the start of the project, BIOMASA was the only pellet producer in Slovakia; now there are at least seven additional producers. The majority of the new consumers have expanded beyond municipalities and public sector to ~70% entrepreneurs and individual households. The project also received many local and international accolades and recognition for its role in raising the profile of biomass energy in Slovakia. The TE suggests that there may be future cash flow issues and possible fluctuations in the market (such as competition with wood chip production), but cannot surmise how these factors will play out.

The project has met nearly every target, exceeding them in most cases; but more recent market developments indicate that the project either did not or could not take into account factors that may limit the potential of further expansion of wood pellet energy in the region. The final PIR states, "EU policies (for biomass co-firing in coal stations) and subsidies for biomass (in Austria and Italy particularly) that promoted pellet sales for the project, are also driving up the price for pellets in Slovakia, making pellet-fired heat more expensive." The growing price for wood waste is "likely to deter rapid expansion of pellet fired heating systems as the situation stands now."

The project document states, "This project will create a sustainable market for biomass energy for heat generation in Northwest Slovakia by addressing institutional, financial, and informational market barriers." While the project has attained success on key outputs, the TE suggests that the project could have more adequately addressed the policy/enabling environment required at the national level and paid more attention to risk management to allow for "adjustments in the business model" during the market transformation process. Also, standardizing adequate baseline and monitoring and reporting systems would help provide reliable data on achieving CO2 emissions reductions.

c. Efficiency (cost-effectiveness) **Rating: S**

The TE states that UNDP had a comparative advantage in executing this project because of its climate change and management expertise in close proximity to the project site, and its "strong momentum and potential for regional cross-fertilization" thought linkages with other biomass projects it supports in Central and Eastern Europe. The project also benefitted from attendance of regional events; which enabled direct linkages with donors and made possible extensive co-financing. The project management arrangement, with the Ministry of the Environment as the executing agency and BIOMASA as the implementing agency, was a structure that "functioned well," and allowed for efficient corrective

actions as required. The complex funding and management arrangements of the project relied heavily on partnerships, both institutional and market-based "through the establishment of a strong client-based approach, focused on service quality, reliability and timeliness." The project also closed 3 months early while still attaining and exceeding target indicators (as outlined in the effectiveness section). The project document states that total projected CO2 equivalent emissions reduction over the course of the project (10 years) was 201,000 tons, and assessed at 402,000 over the lifetime of the technology (20 years). The TE did not express a cost per ton of CO2 emission reduction attained, but did state that the overestimation of the consumer base for biomass energy had a "negative impact on cash flow management and the unit cost associated with the reduction of CO2 emissions. Based on the incremental costs, total cost and total project carbon reduction over the course of the project, the calculated cost per ton of CO2 equivalent is $3.7. [(2.16mill (incremental cost)) / (133,500 tons CO_2 + 453,600 CO_2 equivalent of CH_4 =) 587,100 tons CO_2 and CO_2 equivalent = $3.7/ton of CO_2 equivalent emissions reduction]
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.
While the TE does not explicitly state any trade-offs between environment and development priorities. The project fit into the development *and* environmental priorities of Slovakia as it aimed to utilize what was essentially waste material for meeting energy demands, reduce imports of fuel, create jobs, reduce GHGs and air pollution, and meet (though underestimated) demands for relatively cheap energy in a period when subsidies for fossil fuels were ending.

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)

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: ML**
The TE states that the "three biggest challenges to the financial planning of this project rested on 1. The dramatic change in the price of the saw dust raw material; 2. The well-known and extensive exchange rate fluctuation on the USD between 2000 and 2004; and 3. The higher than expected investment costs." The larger than expected leveraging effect from GEF resources (from a factor of 8.7 to 12.3 times the initial investment) reflects the unexpected challenges in budgeting that BIOMASA was able to overcome by attracting other sources of funding, but there remains "substantial difficulty regarding the predictability of cash flow in a market not yet mature," and BIOMASA does not have the cash flow or the storage capacity to deal with these fluctuations. Also, the BIOMASA models "involve a subsidized price for heat production for members of the association." With the planned incremental removal of biomass subsidies and increasing regional competition, BIOMASA itself may have reached a point of saturation in terms of expansion and replication. The TE notes that one factor that could positively affect cash flow would be increased consumption by existing users.	
b. Socio-economic / political	**Rating: ML**
The TE notes that the "slow pace of increase of demand for pellets in Slovakia, according to a number of stakeholders, is largely influenced by the legal environment, promoting subsidies for natural gas." When capital costs of conversion of boilers are taken into account, the financial incentive to switch to wood pellet energy is greatly reduced or eliminated. However, in comparison with other countries' domestic consumption of primary energy sources, and share of renewable energy sources of gross domestic electricity consumption, it "clearly shows the potential to expand the renewable energy sources market in Slovakia."	
c. Institutional framework and governance	**Rating: ML**
The TE noted that "in view of the developments at the national level, the project could have perhaps done more to build capacity in policy making and strategic planning in the central government." At the time the project was approved, the public and state sectors were "undergoing a transitional process of reform," the purpose of which was to "shift the jurisdiction from each ministry to its respective municipal office, mostly focusing on the education and health sectors. However, the process of transformation had been very slow, thereby causing a lack of communication and cooperation between the different ministries and municipal offices (most of which were included in the project)." At the time the	

[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)

project was approved, there were "many bureaucratic problems, including those concerning matters of jurisdictional authority." In addition, in terms of relative support for new sources of renewable energy, as noted above, in socio-economic/political factors, the new government is placing emphasis on socially responsible development, and has made a "clear commitment to keeping the price of natural gas low."
d. Environmental **Rating: L**
There is no evidence in the TE to suggest that there were substantial environmental risks.
e. Technological **Rating: L**
BIOMASA's has substantial experience in the region and stakeholders report that "boiler rooms visited operated well," "maintenance was still under warranty with no major technical challenges," and "operators were well trained and certified to operate boiler and comply with regular maintenance, with no apparent sign of attrition in service staffing." A technology supplier interview confirmed the high quality of maintenance and suggested that BIOMASA has much fewer maintenance problems than their average client.

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
The TE explains that BIOMASA members' energy costs were subsidized through the project until the wood pellet market "matured," but due to factors largely external to the project (such as subsidies for natural gas and the costs of converting coal to wood pellet boilers outside the project), it is unclear how much of a catalytic effect these particular incentives will have beyond the scope of the initial pilot phase. The TE does note, "the market for saw dust in Slovakia evolved rapidly after 2000, thanks to the increased demand from other new pellet producers in the region (Slovakia or Czech Republic) or from newly installed wood board manufacturers in the region."
b. INSTITUTIONAL CHANGE: To what extent have the project activities contributed to changing institutional behaviors
According to the TE, "BIOMASA organized more than 40 seminars during the project duration, 3 annual conferences (involving 570 participants), did pro presentation in 11 international conferences abroad and 7 conferences in Slovakia, 9 international seminars/workshops and 9 national and regional seminars/workshops." The "management and implementation structure of this project, by its very nature, replied heavily on partnership arrangements." The TE does not elaborate on to what extent these outreach efforts, in addition to the market-based evidence of the project's successes, have influenced institutions and manifested in institutional change at the close of the project.
c. POLICY CHANGE: To what extent have project activities contributed to policy changes (and implementation of policy)?
The TE seems to suggest that there was a lack of policy changes, at the national level, that could have positively affected the market share of wood pellet use in the country and in the region.
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)
The project document, PIR and TE do not provide any evidence for follow-on financing beyond the life of the project; the project was meant to create a fully market-based solution. However, the TE does state that the project "created 33 direct jobs and it considerably contributed to the regional development through its investment activities."
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)?
The TE notes that an interview with one of the technology providers also "pointed to a growing market for their biomass technology in Slovakia and in the region, thanks in large extent to BIOMASA's catalytic effect."

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?
Co-financing is noted in the TE as critical to the success of this project: the original figure was 8.5 M USD, including GEF funding, the Ministry of the Environment grant, a loan from Prva Komunalna Banka (later Dexia Banka) and the resources of BIOMASA and its members. Higher investment project costs and drop-out of GEF sources due to extreme exchange rate changes brought total disbursement amounted to over 12M USD. The project manager spent "considerable efforts and time" seeking complementary sources of financing and attained an increase in the original bank loan, and contributions from the EU Program LIFE III, managed by Kommunalkredit Public Consulting (KKA). These additional funds were leveraged for "boiler room reconstruction… investment costs, non-investment, management and dissemination costs of BIOMASA, while the loan from Dexia was used for investment in CPU and

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

boiler rooms."
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?
No significant delays were noted in the TE. However, the project start-up phase took longer than expected. "The main reasons for this delay being the unclear and changing administrative procedures, the long approval processes with both UNDP and the Ministry of Environment at the beginning of the project, the process of evaluation and accreditation of suppliers." The final PIR states that the project closed 3 months ahead of schedule, with "highly satisfactory" results.
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.
The TE notes that interviews with stakeholders (municipalities, users, steering committee members, etc) "confirm that this project has actively, and continue to actively involve the beneficiaries in the development and management of the base market for pellets created by this initiative." However, the TE notes that national government renewable energy and development priorities, and EU influences on political agenda and regional energy markets, have negatively affected country-ownership of this project. In 2008, the government budget of Slovakia for the planned grants for biomass boilers and solar panels were not approved by the government, as it was "not considered a priority" for the next year. The TE rates the country ownership at Moderately Satisfactory on a 5-point scale. See also the TER sustainability section on "socio-economic/political" and "institutional framework/government."

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): MS**
Based on the project document, the project team was to develop an appropriate and efficient mix of direct and indirect measurements for M&E activities, with an emphasis on impacts on the environment and on the regional heating market (such as monitoring real achieved energy savings). The indicators monitored were clear and sufficient to provide evidence of attaining project goals, but details on design and implementation were insufficient. The TE also notes that "in order to provide reliable data on CO2 emission reductions for GEF projects, adequate baseline and monitoring and reporting systems must be systematized."
b. M&E plan Implementation **Rating (six point scale): S**
With regards to M&E implementation, the TE remarks, "the evaluator's assessment [was] that it was overall satisfactory," and good reporting was available on the project. Aside from internal management arrangements, an advisory committee was established to provide outside guidance and advice on the project, and the project was monitored through regular BIOMASA member meetings. The three key environmental indicators to monitor were reduction of CO2 emissions (201,000 tons), CH4 emissions reduction by 21,600 tons (both during a project lifetime of 10 years), and a reduction of fossil fuel consumption by 6,223 tons/year. The document lists BIOMASA regular reports and relevant organizations as sources for the first two indicators, and boiler operator records and fuel purchase records as resources for the final indicator. The M&E system provided ample evidence that the project met (or exceeded, in the case of reduced fossil fuel consumption) or exceeded each of these goals at a cost of $3.7/ton of CO_2 equivalent emission reduction.
b.1 Was sufficient funding provided for M&E in the budget included in the project document? The TE does not provide this information; nor does the project document itemize "M&E" expenditures beyond the total amount of $11,500.
b.2a Was sufficient and timely funding provided for M&E during project implementation? The project document notes that M&E activities were under budgeted at $11,500, but the TE does not provide information on final expenditures. However, evidence suggests that M&E did not suffer on account of lack of budget. For example, the mid-term evaluation was completed in a timely manner by an independent consultant in Oct. 2005, and progress reports and annual project reviews were readily available.
b.2b To what extent did the project monitoring system provided real time feed back? Was the information that was provided used effectively? What factors affected the use of information provided by the project monitoring system? The TE reports that a 2005 tripartite review and final 2007 APR document review concluded, "the recommendations made and risk identified and management actions taken, all indicate that M&E was used through this project as a feedback mechanism in management, leading to adaptive action. In particular, risks were identified with respect to approval and regulatory risks, equipment maintenance, availability of raw material and changes in the market for wood pellets, change in interest for boiler room reconstruction, and counter measures taken. The project clearly demonstrated its ability for adaptive management, thanks to a dynamic project team at BIOMASA."
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. To the extent that the M&E system can be evaluated for its function as a means to improve the quality of project results

during implementation, it can be considered good practice. However, as the TE indicates, a lack of baselines and lack of a "systematized" approach, were the drawbacks of this project's M&E system.

4.6 Assessment of Quality of Implementation and Execution

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

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

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 TE suggests that the overall quality of UNDP as an executing agency for this project was satisfactory. The TE indicates that UNDP management was involved throughout the project life through the Steering Committee and the advisory committee. UNDP contributed toward its mission to promote sustainable human development and "this project has actively, and continues to actively involve the beneficiaries in the development and management of the base market for pellet created by this initiative." Numerous information and public awareness-raising sessions enabled capacity building at the individual and organizational levels. UNDP's regional office, with climate change and management expertise, was located close to the project site, which may have had its benefits.

Two main points of recommendation in the TE for UNDP were to build on the success of this project in the neighboring region, and also to focus more on the policy environment to create an enabling environment required at the national level for other transformation of biomass energy markets for production & consumption projects in Slovakia. It states that "the project could perhaps have done more to build capacity in policy making and strategic planning in the central government," and that this is not a reflection of BIOMASA.

Aside from the need for a separate policy dialogue component at the national level, the TE notes that another gap in the project design & supervision is the "need to make more efficient use of the new heating capacities installed." The overestimation of the number of municipalities, due to parallel energy efficiency measures and/or lower than expected connections to the heating grid, resulted in increasing need for municipalities to expand their demand for heat in order to fulfill BIOMASA commitments, which, in turn, placed more pressure on the financial viability of BIOMASA. On a related note, the TE also suggests that in order to sustain the GEBs from this project, UNDP should look toward the possibility of assisting BIOMASA & other partners to set up an "emergency line of credit" to help weather risks and market fluctuations for the first few years of full operation.

Also, as noted above in 4.4.b., the project faced some delays at the end of UNDP and the Ministry of the Environment.

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

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 Ministry of Environment of Slovakia was the executing agency, which appointed a National Project Director (NPD). As noted above in 4.4.b., the project faced some delays at the end of UNDP and the Ministry of the Environment. The project was executed in partnership with BIOMASA.

The TE repeatedly notes that BIOMASA (an association of 19 municipalities, Kosice Self-governing Region, 2 health centers, 2 professional schools and 1 NGO in the region) was a "wise" choice as the implementing [executing] body for this project and is still fully functional. BIOMASA achieved or exceeded environmental targets through flexible management and addressing of risks, and BIOMASA has contributed toward substantive economic growth in the region. The BIOMASA office and CPU were set up in Zilina, in proximity to both the raw material (saw dust) supplier market and the local client base and was therefore a cost-efficient choice from a transportation perspective.

[5] some of which are for woodchip production; it is too early to know how the wood pellet vs woodchip market will pan out

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

[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.

The TE notes the following lessons learned:
• When designing an initiative aimed at market transformation, plans must ensure that adequate resources and appropriate institutional structures are set up to promote cooperation and high level dialogue on enabling policies to complement actions on the ground;
• To ensure the most cost effective approach to green house gas reductions in energy conversion schemes meant to be financially viable, adequate and independent attention must be given to the process of consumption and capacity estimates;
• Actual demonstration sites, on the ground, are the best showcase to incite replication by other actors;
• The coupling of pellet production and development of a local/national base market for pellet distribution and consumption to kick start the market transformation process is a strategy that can clearly facilitate the market transformation process and its continued development.
• In designing and implementing a market based initiative targeting development and operation in a market not yet mature such as biomass, adequate provisions must be made to ensure continued support through the first few years of plant and business operation, to allow for adjustments of the business model to the early bumps, and to support the move in the enterprise culture from one of development to one of management.
• In an initiative dealing with market transformation processes, it is crucial to pay adequate attention to continuous risk management, given the erratic nature of such processes.
• In order to provide reliable data on CO2 emission reductions for GEF projects, adequate baseline and monitoring and reporting systems must be systematized.

b. Briefly describe the recommendations given in the terminal evaluation

The TE notes the following recommendations:

For UNDP in the future -
• Future initiatives in market transformation for biomass energy production and consumption in Slovakia should focus on the policy environment to create the enabling environment required at the national level.
• Other similar initiatives in the region should build on the lessons learned from this successful pilot experiment in Slovakia

To ensure a sustainable future for BIOMASA and sustained global environmental benefits from this project -
• Subsidies for heat prices for BIOMASA members should be further reduced to help improve the cash flow situation at BIOMASA and thus improve its prospects for sustainability in view of the volatile market it operates in at the moment.
• Further efforts should be encouraged to promote pellet boiler grid connection from the BIOMASA association members to raise the efficiency of the installed boilers and raise revenues from heat production at BIOMASA and therefore assist in loan repayment. UNDP could play a role in linking up with BIOMASA and with individual municipalities to try to leverage EU structural funds for such connections;
• UNDP should look at the possibility of assisting BIOMASA, perhaps via other partners, in setting up an emergency line of credit to help it weather wide fluctuations in the price for pellets in its first few years of full operation, so that it capitalize on seasonal price fluctuations rather than be a victim of them.
• In parallel to these other measures, special attention should be paid to identifying the most cost-effective way of expanding BIOMASA pellet storage capacity, which is at present impeding efficient production at the CPU.

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.

No other such information available.

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? The TE provides charts and qualitative data to illustrate both relevant outcomes and impacts of the project and achievement of objectives to the extent possible.	6
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? The TE could have stated more information on why particular recommendations/lessons-learned were not more obvious to the IA/and or could not be addressed/how they will be addressed. For example, why there was no national policy dialogue with decision-makers, and why the cash flow	5

issue faced by BIOMASA was not addressed with a back-up financial mechanism up-front.	
c. To what extent does the report properly assess project sustainability and /or a project exit strategy? The TE attempted to paint a full picture of economic, socio-political, internal and external factors that will affect the long-term sustainability of the project.	6
d. To what extent are the lessons learned supported by the evidence presented and are they comprehensive? They are consistent with the evidence of the TE and also comprehensive.	6
e. Does the report include the actual project costs (total and per activity) and actual co-financing used? More information on cost per CO2 ton & M&E expenses.	4
f. Assess the quality of the reports evaluation of project M&E systems? Not enough evidence provided on the design and execution of the project M&E system.	3

7. SOURCES OF INFORMATION FOR THE PRERATATION OF THE TERMINAL EVALUTION REVIEW REPORT EXCLUDING PIRs, TERMINAL EVALUATIONS, PAD.
None.

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

The TE and PIR indicate the following key stakeholders & contacts:

EA: The Ministry of Environment
IA: BIOMASA Association (Mr. Ladislav Zidek, Project Manager, biomasa@biomasa.sk)
Funding & Financing: UNDP/GEF (Klara Tothova, UNDP Country Office Program Manager, klara.tothova@undp.org) (Geordie Colville, UNDP Regional Technical Advsior, geodie.colville@undp.org) the EC Life Programme, KKA, The Ministry of Environment, Dexia banka Slovensko, a.s.

The Project Document Notes Other Stakeholders as:

- Ballast ECI (Denmark), financing and technical consulting – assistance in the financial assessment for the project.
- Ecoenergy Rajec – information dissemination regarding energy savings and Demand side energy efficiency improvements to the schools.
- University of Zvolen – dissemination of experience through academic courses.
- Zilina Regional Office, Trencin Regional Office -- administration of the federal budget for the district offices that oversee the participating schools.
- Schools in municipalities involved in the project (the schools are currently owned by the State, but ownership by the municipalities is expected in the future).
- Slovak Ministry of Environment, Ministry of Economy, Ministry of Construction and Regional Development -- all have declared the support for the project.
- Wood waste producers (from sawmills and wood processing firms) – provision of wood waste for processing.
- First Municipal Bank in Slovakia – provision of a Bank guarantee for the MKØ loan.
- VVUPS NOVA Bratislava – provision of support for energy efficiency monitoring in the first demonstration school in Klokocov.
- Zilina University, Faculty PEDAS -- assistance in the development of the pellet transport system.
- Zilina University – development of the project documentation regarding the present condition of the boiler rooms, and technology needed in future, and the communication system at the Biomasa Association.

The TE also states:
"The direct beneficiaries of the project were the municipalities, which are the owners of the schools and public buildings to which heating is provided. Ultimate beneficiaries included municipal populations, hospital patient and school children. Other key stakeholders included the saw dust producers on the supply end of the spectrum."

9. Information Gaps (for Field visit countries only)