

# **Final Evaluation of the UNDP/GEF Project: Removal of Barriers to Biomass Power Generation and Cogeneration in Thailand (THA: RBBPGC Project)**

## **Terms of Reference**

### **Purpose**

The evaluation of the UNDP/GEF Removal of Barriers to Biomass Power Generation and Cogeneration in Thailand (RBBPGC) Project aims to review the performance of the project from the start up to the end of the project, towards achieving its target objective and outcomes. The review will assess and rate project results, the sustainability of project outcomes, the catalytic effect of the project, and the quality of the project's monitoring and evaluation systems. The evaluation will also identify "lessons learned and best practices" from the RBBPGC Project and offer recommendations that might improve design and implementation of other UNDP/GEF projects.

### **Background**

The RBBPGC Project is a Global Environment Facility (GEF) supported full size project (FSP) and is in line with GEF Operational Programme No. 6, "Promoting the Adoption of Renewable Energy by Removing Barriers and Reducing Implementation Costs," implemented through the United Nations Development Programme (UNDP). All parties signed the 7-year project on 20 June 2001 that indicates official implementation of the project.

The project aims to reduce GHG emissions by accelerating the growth of biomass co-generation and power generation technologies to replace current fossil fuel consumption in Thailand. The objective of the project is to: a) build capacity to provide information and services to potential biomass power project investors; b) improve the regulatory framework to provide financial incentives to biomass power project investors; c) increase access to commercial financing for biomass co-generation and power projects; d) facilitate the implementation of two initial biomass power plants through support for commercial guarantees which will reduce technical risks associated with the deployment of this new technology in Thailand.

To achieve the above outcomes, the GEF has provided US\$ 6,805,000; and the government, private sector, bilateral donors, and regional banks collectively provided a total amount of US\$ 117,630,000 in co-financing.

### **Specific Objectives**

The evaluation of the RBBPGC Project should properly examine and assess the perspectives of the various stakeholders. The following areas should be covered in the final evaluation report:

#### **1. General Information about the Evaluation**

The final evaluation report should include information on when the evaluation took place; places visited; who was involved; the key questions; and, the methodology. The final evaluation report will also include the evaluation team's TOR and any response from the

project management team and/or the country focal point regarding the evaluation findings or conclusions as an annex to the report.

## 2. Assessment of Project Results

The final evaluation will assess achievement of the project's objective, outcomes and outputs and will provide ratings for the targeted objective and outcomes. The assessment of project results seeks to determine the extent to which the project objective was achieved, or is expected to be achieved, and assess if the project has led to any other short term or long term and positive or negative consequences. While assessing a project's results, the final evaluation will seek to determine the extent of achievement and shortcomings in reaching the project's objective as stated in the project document and also indicate if there were any changes and whether those changes were approved. If the project did not establish a baseline (initial conditions), the evaluator should seek to estimate the baseline condition so that achievements and results can be properly established.

Assessment of project outcomes should be a priority. Outcomes are the likely or achieved short-term and medium-term effects of an intervention's outputs. Examples of outcomes could include but are not restricted to stronger institutional capacities, higher public awareness (when leading to changes of behavior), and transformed policy frameworks or markets. An assessment of impact is encouraged when appropriate. The evaluator should assess project results using indicators and relevant tracking tools.

To determine the level of achievement of the project's objective and outcomes, the following three criteria will be assessed in the final evaluation:

- **Relevance:** Were the project's outcomes consistent with the focal areas/operational program strategies and country priorities?
- **Effectiveness:** Are the actual project outcomes commensurate with the original or modified project objective?
- **Efficiency:** Was the project cost effective? Was the project the least cost option? Was the project implementation delayed and if it was, then did that affect cost effectiveness? Wherever possible, the evaluator should also compare the cost-time vs. outcomes relationship of the project with that of other similar projects.

The evaluation of relevancy, effectiveness and efficiency will be as objective as possible and will include sufficient and convincing empirical evidence. Ideally the project monitoring system should deliver quantifiable information that can lead to a robust assessment of the project's effectiveness and efficiency. Outcomes will be rated as follows for relevance, effectiveness and efficiency:

Highly Satisfactory (HS): The project had no shortcomings in the achievement of its objective, in terms of relevance, effectiveness or efficiency.

Satisfactory (S): The project had minor shortcomings in the achievement of its objective, in terms of relevance, effectiveness or efficiency.

Moderately Satisfactory (MS): The project had moderate shortcomings in the achievement of its objective, in terms of relevance, effectiveness or efficiency.

Moderately Unsatisfactory (MU): The project had significant shortcomings in the achievement of its objective, in terms of relevance, effectiveness or efficiency.

Unsatisfactory (U) The project had major shortcomings in the achievement of its objective, in terms of relevance, effectiveness or efficiency.

Highly Unsatisfactory (HU): The project had severe shortcomings in the achievement of its objective, in terms of relevance, effectiveness or efficiency.

While rating the project's outcomes, relevance and effectiveness will be considered as critical criteria. If separate ratings are provided on relevance, effectiveness and efficiency, the overall outcomes rating of the project may not be higher than the lowest rating on relevance and effectiveness. Thus, to have an overall satisfactory rating for outcomes, the project must have at least satisfactory ratings on both relevance and effectiveness.

The evaluators will also assess other results of the project, including positive and negative actual (or anticipated) impacts or emerging long-term effects of a project. Given the long term nature of impacts, it might not be possible for the evaluators to identify or fully assess impacts. Evaluators will nonetheless indicate the steps taken to assess long-term project impacts, especially impacts on local populations, global environment (e.g. reduced greenhouse gas emissions), replication effects and other local effects. Wherever possible evaluators should indicate how the findings on impacts will be reported to the GEF in future.

#### Capacity Development

The effects of the RBBPGC Project activities on strengthening the capacities of the DOE, private sector investors, peoples'/community organization or civil society organization will be assessed.

#### Leverage

An assessment of RBBPGC Project's effectiveness in leveraging funds that would influence larger projects or broader policies to support its goal will have to be conducted.

#### Awareness Raising

- RBBPGC Project's contribution to raise awareness of environmental issues and of the GEF will be examined
- RBBPGC Project's contribution to promote policy or advocacy activities and collaboration among communities will be assessed.

The following table should be completed to provide a summary of the planned and actual activities of the project as well as the expenditures up to the present.

Activities			Budget	
Planned	Actual	As per ProDoc	Actual Expenditures	% of Project Budget

### 3. Assessment of Sustainability of Project Outcomes

The final evaluation will assess the likelihood of sustainability of outcomes at project termination, and provide a rating for this. Sustainability will be understood as the likelihood of continued benefits after the GEF project ends. The sustainability assessment will give special attention to analysis of the risks that are likely to affect the persistence of project outcomes. The sustainability assessment should also explain how other important contextual factors that are not outcomes of the project will affect sustainability. The following four dimensions or aspects of sustainability will be addressed:

- **Financial resources:** Are there any financial risks that may jeopardize sustenance of project outcomes? What is the likelihood of financial and economic resources not being available once the GEF assistance ends (resources can be from multiple sources, such as the public and private sectors, income generating activities, and trends that may indicate that it is likely that in future there will be adequate financial resources for sustaining the project's outcomes)?
- **Socio-political:** Are there any social or political risks that may jeopardize sustenance of project outcomes? What is the risk that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the project outcomes/benefits to be sustained? Do the various key stakeholders see that it is in their interest that the project benefits continue to flow? Is there sufficient public / stakeholder awareness in support of the long term objectives of the project?
- **Institutional framework and governance:** Do the legal frameworks, policies and governance structures and processes pose risks that may jeopardize sustenance of project benefits? While assessing this parameter, also consider if the required systems for accountability and transparency, and the required technical know-how are in place.
- **Environmental:** Are there any environmental risks that may jeopardize sustenance of project outcomes? The final evaluation should assess whether certain activities will pose a threat to the sustainability of the project outcomes.

On each of the dimensions of sustainability of the project, outcomes will be rated as follows.

Likely (L): There are no or negligible risks that affect this dimension of sustainability.

Moderately Likely (ML): There are moderate risks that affect this dimension of sustainability.

Moderately Unlikely (MU): There are significant risks that affect this dimension of sustainability.

Unlikely (U): There are severe risks that affect this dimension of sustainability.

All the risk dimensions of sustainability are critical. Therefore, the overall rating for sustainability will not be higher than the rating of the dimension with lowest ratings. For example, if a project has an 'Unlikely' rating in either of the dimensions then its overall rating cannot be higher than 'Unlikely'.

#### 4. Catalytic Role

The final evaluation will also describe any catalytic or replication effect of the project. If no effects are identified, the evaluation will describe the catalytic or replication actions that the project carried out. No ratings are requested for the catalytic role.

#### 5. Assessment of Monitoring and Evaluation System

The final evaluation will assess whether the project met the minimum requirements for project design of M&E and the implementation of the Project M&E plan. GEF projects must budget adequately for execution of the M&E plan, and provide adequate resources during implementation of the M&E plan. Project managers are also expected to use the information generated by the M&E system during project implementation to adapt and improve the project. Given the long duration of many GEF interventions, projects are also encouraged to include long-term monitoring provisions to measure mid-term and long-term results (such as global environmental effect, replication effects, and other local effects) after project completion. The final evaluation report will include separate assessments of the achievements and shortcomings of the project M&E plan and of implementation of the M&E plan.

##### **M&E during Project Implementation**

**M&E design.** Projects should have a sound M&E plan to monitor results and track progress towards achieving project objectives. An M&E plan should include a baseline (including data, methodology, etc.), SMART (Specific, Measurable, Achievable, Realistic and Timely) indicators and data analysis systems, and evaluation studies at specific times to assess results and adequate funding for M&E activities. The time frame for various M&E activities and standards for outputs should have been specified.

**M&E plan implementation.** The final evaluation should verify that: an M&E system was in place and facilitated timely tracking of progress towards the project objective and outcomes by collecting information on chosen indicators continually through the project implementation period; annual project reports were complete, accurate and with well justified ratings; the information provided by the M&E system was used during the project to improve project performance and to adapt to changing needs; and, projects had an M&E system in place with proper training for parties responsible for M&E activities to ensure data will continue to be collected and used after project closure.

**Budgeting and Funding for M&E Activities.** In addition to incorporating information on funding for M&E while assessing M&E design, a separate mention will be made of: whether M&E was sufficiently budgeted at the project planning stage; and, whether M&E was adequately and timely funded during implementation.

Project monitoring and evaluation systems will be rated as follows on quality of M&E design and quality of M&E implementation:

Highly Satisfactory (HS): There were no shortcomings in the project M&E system.

Satisfactory(S): There were minor shortcomings in the project M&E system.

Moderately Satisfactory (MS): There were moderate shortcomings in the project M&E system.

Moderately Unsatisfactory (MU): There were significant shortcomings in the project M&E system.

Unsatisfactory (U): There were major shortcomings in the project M&E system.

Highly Unsatisfactory (HU): The Project had no M&E system.

The overall rating of M&E during project implementation will be solely based on the quality of M&E plan implementation. The ratings on quality at entry of M&E design and sufficiency of funding both during planning and implementation stages will be used as explanatory variables.

### **Monitoring of Long Term Changes**

M&E of long term changes is often incorporated in GEF supported projects as a separate component and it may include determination of environmental baselines, specification of indicators, provisioning of equipment and capacity building for data gathering, analysis and use. This section of the final evaluation will describe the actions and accomplishments of the project in the establishment of a long term monitoring system. The review will address the following questions:

Did this project contribute to the establishment of a long term monitoring system? If it did not, should the project have included such a component?

What were the accomplishments and short comings in establishment of this system?

Is the system sustainable, i.e. is it embedded in a proper institutional structure and has financing?

Is the information generated by this M&E system being used as originally intended?

## **6. Assessment of Processes that Affected Attainment of Project Results**

Among other factors, when relevant, it is suggested that the evaluation team considers the following issues affecting project implementation and attainment of project results. However, evaluators are not expected to provide ratings or separate assessment on the following issues but they could be considered while assessing the performance and results sections of the report:

- **Preparation and readiness.** Were the project's objectives and components clear, practicable and feasible within its timeframe? Were the capacities of executing institution and counterparts properly considered when the project was designed? Were lessons from other relevant projects properly incorporated in the project design? Were the partnership arrangements properly identified and the roles and responsibilities negotiated prior to project approval? Were counterpart resources (funding, staff, and facilities), enabling legislation, and adequate project management arrangements in place at project entry?
- **Country ownership/drivenness.** Was the project concept in line with the sectoral and development priorities and plans of the country? Are project outcomes contributing to national development priorities and plans? Were the relevant country representatives, from government and civil society, involved in the project? Did the recipient government maintain its financial commitment to the project? Has the government approved policies or regulatory frameworks that are in line with the project's objectives?
- **Stakeholder involvement.** Did the project involve the relevant stakeholders through information-sharing, consultation and by seeking their participation in the project's design, implementation, and monitoring and evaluation? For example, did the project implement appropriate outreach and public awareness campaigns? Did the project consult and make use of the skills, experience and knowledge of the appropriate government entities, NGOs, community groups, private sector, local governments and academic institutions in the design, implementation and evaluation of project activities? Were perspectives of those that would be affected by decisions, those that could affect the outcomes and those that could contribute information or other resources to the process taken into account while taking decisions? Were the relevant vulnerable groups and the powerful, the supporters and the opponents, of the processes properly involved?
- **Financial planning.** Did the project have the appropriate financial controls, including reporting and planning, that allowed management to make informed decisions regarding the budget and allowed for timely flow of funds. Was there due diligence in the management of funds and financial audits? Did promised co-financing materialize? **(Please complete the co-financing table in Annex 1).**
- **Implementing/Executing Agency's supervision and backstopping.** Did Implementing/Executing Agency staff identify problems in a timely fashion and accurately estimate their seriousness? Did Implementing/Executing Agency staff provide quality support and advice to the project, approve modifications in time and restructure the project when needed? Did the Implementing/Executing Agencies provide the right staffing levels, continuity, skill mix, and frequency of field visits for the GEF projects?
- **Co-financing and Project Outcomes and Sustainability.** If there was a difference in the level of expected co-financing and actual co-financing, then what were the reasons for the variance? Did the extent of materialization of co-financing affect the project's outcomes and/or sustainability, and if it did affect outcomes and sustainability then in what ways and through what causal linkages?
- **Delays and Project Outcomes and Sustainability.** If there were delays in project implementation and completion, then what were the reasons? Did the delay affect the

project's outcomes and/or sustainability, and if it did affect outcomes and sustainability then in what ways and through what causal linkages?

## **7. Lessons and Recommendations**

The evaluators will present lessons and recommendations in the final evaluation report on all aspects of the project that they consider relevant. The evaluators will be expected to give special attention to analyzing lessons and proposing recommendations on aspects related to factors that contributed or hindered: attainment of project objectives, sustainability of project benefits, innovation, catalytic effect and replication, and project monitoring and evaluation.

Evaluators should refrain from providing recommendations to improve the project. Instead they should seek to provide a few well formulated lessons applicable to the type of project at hand or to GEF's overall portfolio. Final evaluations should not be undertaken with the motive of appraisal, preparation, or justification, for a follow-up phase. Wherever possible, the final evaluation report should include examples of good practices for other projects in a focal area, country or region.

## **Methodology**

The evaluation will consist of a desk review of relevant project documents and reports related to the planned evaluation and of the GEFs. The expert will then conduct focused group discussions, meetings, and interviews with the Project Director and other partners on topics and issues that relate to the implementation and impact of the project. The Expert is expected to become well versed as to the objectives, historical developments, institutional and management mechanisms, project activities and already documented "lessons learned" of the project. Information will be gathered through document review, group and individual interviews and site visits. More specifically, the evaluation will be based on the following sources of information:

- Review of documents related to the project such as project document, quarterly and annual progress reports, other activity/component specific deliverables, reports and evaluation, if there are any, etc.
- Structured interview with knowledgeable parties, i.e., Project Director, Project Personnel, Sub-Contracting Parties/Entities, National Consultants, UNDP Country Office Counterparts, members of the Project Steering/Advisory Committee/s, Community-Based/Peoples Organization/s, Project Beneficiaries or grantees, etc.
- A number of visits to various pilot project sites, if feasible. The site visits should be discussed with the Project Coordinator and UNDP.

## **Timing and Submission of the Report**

The RBBPGC Project evaluation will begin on the second week of April 2009 and should be completed by the first week of June 2009. A first draft evaluation report will be prepared by the expert within the evaluation period and initially will be shared with the Executing Agency (i.e., Energy for Environment (E for E) on behalf of the Energy Policy and Planning Office) to solicit comments or clarifications. The draft report will be presented to the Project Steering Committee and the other stakeholders for further deliberations and in order to obtain feedback necessary for finalization. A final report will be prepared and delivered within two weeks after the evaluation exercise highlighting important observations, analysis of information and key conclusions



including its recommendations. The report (in 10 copies) will be prepared and submitted to the UNDP CO copy furnished the EPPO.

## **Roles and Responsibilities**

The UNDP-GEF Regional Technical Advisor for Climate Change will assist the UNDP CO and members of the evaluation team in preparing for the final evaluation of the project. The evaluation team will be composed of an independent highly qualified expert together with at least one independent national consultant. The executing agency shall provide in advance copies of the necessary documents needed by the experts during the evaluation period. Likewise, the E for E shall provide the list of contact persons representing the various stakeholders of the project, which will be the basis for the tentative itinerary/schedule of activities, which the expert will prepare. The E for E will finalize the schedule of activities in consultation with the expert and UNDP CO staff. The E for E and UNDP-Bangkok will coordinate the logistical arrangements for the evaluation.

## **Budget**

All the costs incurred for the conduct of the evaluation shall be charged against project funds. The interested individuals or group of consultants should submit a proposal with a budget estimate for consideration by the Selection Committee. Payment of Expert/s' professional fees shall be made in accordance with the Service Contract to be issued in this regard.

## **Outputs**

The following are the required outputs of the final evaluation:

- A succinct written review of the status of the RBBPGC Project discussing the above points and that may include relevant maps or tables pertinent to the review where available. The report should be delivered to UNDP and the Chairman of the Steering Committee of the project, not later than 5<sup>th</sup> June 2009 in hard copy form plus CD-Rom in electronic file format e.g. MS Word.
- Presentation of the evaluation findings and recommendations to the UNDP and PMO
- Complete Final Evaluation Report (hard copy and in electronic format)

## **Team composition**

- One international consultant knowledgeable about Climate Change and Renewable Energy, with solid experience in project management (implementation, monitoring and evaluation process) and familiarity with promotional activities in the areas of energy and environment.
- One or two national consultants who have extensive knowledge in the energy and environment situation of Thailand, with experience in developing performance indicators, project appraisal and evaluation of development projects.

## **Qualification Requirements**

- Evaluators must be independent of both the policy-making process and the delivery and management of assistance to the RBBPGC project. They should not have been engaged in the activities to be evaluated, or responsible in decision-making roles for the design, implementation or supervision of the project. In cases where a member of an evaluation team has been involved with some aspects of the project, this member should refrain from evaluating those aspects. In cases where project evaluation team members are not independent, are biased and are not free of conflict of interest, UNDP will put in place a final evaluation quality control review by its independent evaluation office.
- Evaluators will be impartial and will present a comprehensive and balanced appraisal of the strengths and weaknesses of the project or activity being evaluated.
- The evaluation team should comprise of professionals with strong evaluation experience, with requisite expertise in the subject matter of the project, and with experience in economic and social development issues.
- Evaluators should be knowledgeable about the relevant policies of the GEF.
- Evaluators should ensure that while conducting the final evaluation they take into account the views of all relevant stakeholders. The TORs for this GEF project's final evaluation and its schedule should be made known to key stakeholders.
- Evaluators should become familiar with the project document and should use the information generated by the project including, but not restricted to, baseline and information generated by its M&E system. Evaluators should also seek the necessary contextual information to assess the significance and relevance of results.

**Annex 1 (must be completed as part of final evaluation report)**

**Co-financing**

Co-financing (Type/Source)	UNDP Financing (mill US\$)		Government (mill US\$)		Other* (mill US\$)		Total (mill US\$)		Total Disbursement (mill US\$)	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Grants										
Loans/Concessions (compared to market rate)										
Credits										
Equity investment										
In-kind support										
Other (*)										
<b>TOTALS</b>										

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