



# United Nations Environment Programme

برنامج الأمم المتحدة للبيئة • 联合国环境规划署  
PROGRAMME DES NATIONS UNIES POUR L'ENVIRONNEMENT • PROGRAMA DE LAS NACIONES UNIDAS PARA EL MEDIO AMBIENTE  
ПРОГРАММА ОРГАНИЗАЦИИ ОБЪЕДИНЕННЫХ НАЦИЙ ПО ОКРУЖАЮЩЕЙ СРЕДЕ

## MEMORANDUM

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		Drafter	SAK
Through:		Room:	P224
		Extension:	3265
From:	Ahmed Djoghlaif Executive Co-ordinator UNEP GEF Co-ordination Office	Reference:	MSP/CC

Subject: Medium Sized project submission

Please find attached the medium sized project brief " Directing Investment Decisions to Promote the Transfer of Cleaner and More Climate Friendly Technologies – A Private Sector Clearinghouse " submitted for consideration of GEF financing.

We look forward to receiving any comments by 15 February 1999. Thank you.



## Medium-Sized Project Brief Global Environment Facility

United Nations Environment Programme

### PROJECT SUMMARY

<i>Project Identifiers</i>	
<b>1. Project name:</b> Redirecting Commercial Investment Decisions to Cleaner Technologies – A Technology Transfer Clearinghouse	<b>2. GEF Implementing Agency:</b> UNEP
<b>3. Countries in which the project is being implemented:</b> Globally in eligible countries when interest is expressed by private sector investors and endorsed by relevant GEF Operational Focal Points.	<b>4. Country eligibility:</b> UNEP will ensure that any country participating in the project is eligible to receive GEF funding in accordance with Paragraph 9(b) of the Instrument for the Restructured Global Environment Facility.
<b>5. GEF Focal Area:</b> Climate Change	<b>6. Operational Programmes: 5 &amp; 6</b> -Removal of Barriers to Energy Efficiency -Promoting Renewable Energy
<b>7. Project linkage to national priorities, action plans and programmes:</b> By ratifying the UNFCCC countries agree to promote the application of technologies, practices, and process that reduce or prevent emissions of greenhouse gases. Promoting investments in more energy efficient and renewable energy technologies by private sector investors helps meet these objectives. The project is consistent with relevant government plans and programmes in GEF recipient countries. It responds to specific information needs of commercial investors and their financial partners. The proposed approach harnesses the private sector's motivation to make financially sound investments, but will direct this toward cleaner technologies that reduce GHG emissions at the same time.	
<b>8. GEF national operational focal point and date of country endorsement:</b> Endorsement by GEF national focal points will be obtained on a case-by-case basis when an opportunity to influence an investment decision is identified in a specific eligible country.	
<i>Project Objectives and Activities</i>	
<b>9. Project rationale and objective:</b> The project objective is to enable the abatement of up to one million tons of carbon emissions by redirecting pending private sector investment decisions towards cleaner technology options. This will be achieved by removing information barriers to the acquisition and transfer of renewable and/or highly energy efficient technologies, thus shifting pending investment decisions towards cleaner technologies.	<b>Indicators:</b> - GHG emission reductions enabled (Million tons)
<b>10. Project outcomes:</b> a) Up to ten pending private sector investment decisions may be redirected to cleaner technologies by provision of contingent finance for alternative feasibility work. This is to facilitate the review and adoption alternative technology options. b) Increased awareness in lending institutions and private sector companies of potential economic and environmental gains of investments in EE/RET .	<b>Indicators:</b> a) Number of investment decisions directed from conventional to cleaner technology options and associated GHG mitigation b) Number of investment officers and private sector investors who have requested/utilized project information services (seminars, webpage, brochures); number of proposals for alternative feasibility studies received

<b>11. Planned activities to achieve outcomes :</b> a)Provision of contingent finance for alternative appraisals (US\$550,000) b) Provision of targeted training to lending officers and local investment advisors (US\$95,000); c) Development and provisions of internet-based pre-appraisal tools for alternative technology options (US\$50,000) d) Preparation and delivery of information materials (US\$25,000) e) Project evaluation (\$30,000)	<b>Indicators:</b> a)Number of alternative feasibility studies financed, number of reimbursements b) Number of seminars conducted, number officers/advisors trained c)Tool posted on the Internet (date), webpage registration, number of hits d)Number of brochures prepared and delivered
<b>12. Estimated budget:</b> GEF: US\$750,000 Co-financing (UNEP, in-kind): US\$180,000  <b>Project Total: US\$930,000</b> Associated Baseline Financing (allocations to UNEP's Cleaner Production activities) US\$7,500,000 Volume of baseline investments to be redirected up to US\$ 100 million	
<b>13. Information on project proposers:</b> This proposal has been prepared jointly by UNEP-TIE and leading European development financing institutes belonging to the European Development Finance Institutions network (EDFI) in response to interests of industry associations representing private sector companies that work in GEF recipient countries. The project will be open to commercial sector partners investing in GEF recipient countries that are Parties to the UNFCCC.  The European Development Finance Institutions Organisation is an affiliation of 12 public investment banking partners that promote private sector development in developing countries and CEIT.  The UNEP Division of Technology, Industry and Economics (TIE) directs UNEP's efforts to integrate environmental considerations into private sector activities. TIE brings together industry, non-governmental organizations, and governments to promote environmentally sound industrial development and management of existing enterprises. The Division's goals include: defining and encouraging the adoption of environmental criteria in industrial operations through training programmes and provision of information on a broad range of industrial environmental issues.	
<b>14. Information on proposed executing agency (if different from above):</b> UNEP will execute the project in close cooperation with interested development banks. Alternative appraisal services will be delivered through interested banking sector partners as the executing agents. The project has been endorsed by EDFI , the Asian Development Bank and the European Bank for Reconstruction and Development. It is open for cooperation with other development banking partners.	
<b>15. Date of initial submission of project concept:</b> 1/26/99	
<b>16. Project Identification number:</b>	
<b>17. Implementing Agency contact person:</b> Mark Radka, Energy Programme Coordinator, UNEP	
<b>18. Project linkage to Implementing Agency programmes:</b> The proposed intervention complements UNEP's Cleaner Production Program and builds on the organization's strong industry network. Diverse synergies are expected as existing dissemination channels can be utilized and outreach activities can be combined. UNEP's Cleaner Production programme aims to catalyze implementation of policies and strategies that support a preventive environmental management approach.	

## **PROJECT DESCRIPTION**

### ***Project rationale and objectives:***

***The objective of the project is to prevent the emission of greenhouse gases by redirecting private sector investments towards cleaner technologies. The project will intervene strategically in the lending cycle by providing carefully targeted alternative technology appraisal services to private sector borrowers and their lenders, thereby switching lending decisions to technologies that have a global environmental benefit.***

Energy consumption in the industrial and commercial sectors accounts for a large percentage of greenhouse gas emissions; national governments must rely on actions taken by the private sector in order to meet obligations imposed by the UNFCCC. If the private sector cannot be motivated to take action the global climate will not be stabilized; its role in meeting the objectives of the UNFCCC is recognized in the *Instrument for the Establishment of the Restructured Global Environment Facility*.

The project will influence investment decisions by providing advisory services beyond those a borrower might take on his own, working directly with banks and their clients to overcome informational barriers in EE/RET financing. Through carefully targeted appraisals of alternative technologies the project will increase loan officers familiarity with EE/RET investments. Knowledge and perception barriers, once removed, are unlikely to return. This permanent change in the institutional capacities developed through the project will favor replication of its activities by the participating lending institutions after the project ends.

Project progress and results will be monitored closely throughout the implementation cycle. A comprehensive evaluation of the project's impact will be conducted upon project completion. The project may be suggested as a model for replication if evaluation outcomes will verify its effectiveness. A viable approach could form the basis for a strategic partnership between the private sector, a range of financial intermediaries as executing partners and UNEP as a GEF Implementing Agent.

### ***Current situation:***

Too much investment in developing countries is still directed toward outdated energy technologies, even where commercially available energy efficient and renewable technologies are technically feasible and financially attractive. Loan officers in financial institutions have little practical experience in evaluating applications that have an EE/RET component. They do not understand the economic and environmental advantages of EE/RET investments and view them (incorrectly) as being too risky based on outdated or incorrect information. Because banks fail to support EE/RET projects these technologies are penetrating the market at rates slower than is socially desirable. Global environmental benefits go unrealized because of a lack of knowledge and skills on the part of investment officers in lending institutions.

Banks, however, have begun to realize that in many instances environmental problems increase financial risks. Poor environmental performance by a private sector borrower may

influence its ability to repay a loan, if, for example, the borrower violates environmental regulations and is fined or shut down by the government. Inadequate environmental management may also affect shareholder value and negatively influence stock prices for publicly listed companies. There is a growing awareness in the financial community that the environmental considerations associated with their lending operations are important and need to influence day-to-day decisionmaking.

UNEP's Division of Technology, Industry and Economics promotes environmentally sound management and builds corresponding capacities in governments and the private sector. The objective is to encourage decision-makers to develop and adopt policies, strategies, and practices that are cleaner and safer, make efficient use of natural resources, and reduce pollution and risks to humans and the environment.

As part of its global work programme, UNEP already provides information on environmentally sound technologies, prepares training materials, organizes and conducts training workshops, and maintains an outreach programme on a broad range of industrial environmental issues. The project would complement and build on these efforts. UNEP has as well a Collaborating Centre on Energy and Environment (UCCEE) that supports the organization's energy programme. Related activities underway at UCCEE include strengthening capacity for energy/environment decision making and overcoming barriers to the more widespread adoption of EE/RETs.

### ***Expected Project Outcomes:***

The main project outcome is redirected investment decisions by private sector borrowers. Lending institutions are the means to influence investor decisions towards investments in EE/RETs that are cleaner and yield a global environmental benefit.

At the end of the project, the following outcomes are expected:

- a) up to ten private sector investment decisions redirected to cleaner technologies by provision of contingent finance for alternative technical feasibility and appraisals:
  - pre-feasibility studies/appraisals conducted for a minimum of 15 EE/RET investments, with supporting documentation;
  - feasibility studies/appraisals conducted for a minimum of 10 EE/RET investments, with supporting documentation.
- b) increased awareness of commercial investors and lending institutions of potential economic and environmental gains possible through investments in EE/RETs;
- c) improved skills for appraising alternative technology investment projects in partner financial institutions.

The longer-term outputs include:

- d) continued delivery by partner financial institutions to their private sector clients of EE/RET advisory services as part of conventional lending operations;
- e) increased levels of commercial financing for investment projects with an EE/RET component.

UNEP will evaluate the project at its conclusion. If the project approach proves to have promoted additional investment in projects with an EE/RET component by removing informational barriers UNEP may submit a full project proposal with refined objectives that could serve as a private sector-oriented technology transfer clearing house.

***Activities and Financial Inputs:***

The project will last for 18 months, and consist of the following activities:

a) Using a need-based, targeted approach, provide customized advisory and project appraisal services to loan officers and their clients on projects where a GHG abatement potential exists but where informational barriers prevent its going forward. Such advice will be provided on a contingent basis. Financing for the feasibility study of the alternative technology will be provided as a grant to the borrower on condition that it will be repaid if the investment proves viable and the bank is willing to extend a loan for an EE/RET but the borrower decides against it. Baseline appraisals will be the responsibility of the private sector borrowers participating in the project. In selecting candidate investment projects for alternative appraisals each proposal will be judged individually to determine that there is sufficient incremental global benefit and that the GEF-supported advisory services are incremental.

Other project activities (below) support this core activity.

b) Develop an interactive appraisal guide for loan officers that makes it easier to screen and appraise loan projects involving energy efficient or renewable energy technologies and to compare conventional investments with EE/RET options. The tool will be accessible via the Internet, and will apply to either stand-alone EE/RET projects or those where the EE/RET is a component of a larger investment project.

c) Prepare general informational materials about the economic and environmental advantages of alternative energy technology investments that support the project; publicize the project through existing mechanisms, including activities conducted by project partners.

d) Prepare training materials on the use of the appraisal tool and EE/RET project appraisal and provide training to loan officers in selected partner banks. Such training will be conducted with bilateral or multilateral development banks as partners and be organized back-to-back with UNEP baseline workshops or training events to reduce costs. The European Development Financial Institutions consortium, Asian Development Bank, and European Bank for Reconstruction and Development have indicated an interest in working with UNEP on the project, primarily by raising interest in the EE/RET appraisals through their financial intermediary partners and private sector clients.

Training workshops would be short duration (one day) and have the twin aims of: 1) raising awareness about the advantages of EE/RET investments while providing an introduction to EE/RET appraisal and 2) identifying potential beneficiaries of the advisory services. Training would be offered to interested national and international banks working in GEF client

countries as well as private sector stakeholder organizations such as business councils, industry associations, and chambers of commerce.

e) Monitor loan provision and project implementation to determine GHG emissions achieved. Estimates of global environmental benefits will be available through the project appraisals but it is important to determine actual achievements.

The provision of targeted alternative appraisal services is the core of the project; most of the project resources will be devoted to providing the alternative appraisal services on a contingent basis (US\$600,000, or approximately two thirds of the project budget). UNEP's financial input to the project is estimated to be approximately US\$180,000 of in-kind support. Financial partners are expected to provide an equivalent in-kind amount. Since private sector partners will pay for baseline project advisory and appraisal services, their contribution to the overall project will be significant.

After appraisals of climate friendly alternative investments are completed, investments will be made by the private sector clients working with their investment partners. An estimated US\$70-100 million in cleaner technology investments is expected to be leveraged through the project. Normally no additional GEF financial input would be required. In some cases, however, an increased risk may be evident that would warrant the consideration of a partial GEF risk guarantee to cover incremental risks on a contingent basis. Such services could be requested on a case-by-case basis and handled as separate GEF interventions in accordance with GEF criteria for the climate change focal area. Thus, with no direct financial contribution, the GEF might be able to favorably influence lending decisions by assuming part of the risk that technologies with global benefits fail to meet their expected levels of performance. This represents an additional possibility for leveraging mainstream financing that will be explored through the project.

### ***Sustainability Analysis and Risk Assessment:***

Knowledge and perception barriers, once removed, are unlikely to return. By upgrading institutional capacities, the project will bring about a mainstreaming of EE/RET projects in the lending portfolios of participating lending institutions.

Private sector borrowers, banks, and providers of energy efficient and renewable energy technologies all stand to gain if projects that have sound financial and environmental fundamentals go ahead.

The main project risk is that the private sector clients or lending institutions will be unwilling to take or make loans respectively even when presented with favorable appraisals of alternative investments. That customized appraisal services will be provided on a contingent basis will reduce this risk with borrowers.

There exists some risk that private sector borrowers will join as project partners and receive alternative appraisals they would have paid for in the absence of the project. Careful selection



of private sector partners with the help of participating financial institutions will help reduce this risk.

### ***Stakeholder Involvement and Social Assessment:***

This project comes from a recommendation made at a joint UNEP - GEF Secretariat workshop entitled *Engaging the Private Sector in GEF Activities*. Participants from global industry and trade associations noted that knowledge barriers in lending institutions prevent faster, more widespread use of energy efficient and renewable energy technologies by their members. Private sector borrowers, development banks, and alternative technology providers have all indicated an interest in the project. The project will leverage funds from other sources and so is consistent with guidance provided by the Conference of the Parties to the Framework Convention on Climate Change.

No negative social or environmental impacts are expected to occur from the project, which would merely shift investments to technologies that are more environmentally sound. Any unexpected social or environmental impacts arising from an alternative technology choice will be revealed on a case-by-case basis during individual project appraisal.

### ***Incremental Cost Assessment:***

The project would support pre-feasibility and feasibility studies of projects where a private sector borrower might otherwise not evaluate an EE/RET as an alternative to a conventional energy supply. Baseline costs for appraisals of standard technologies will continue to be paid for by borrowers. The incremental cost of the project is the value of the expert advice and guidance provided in appraising energy technology alternatives, as well as the project components addressing needs for training and general information. In other words, the incremental costs of the project are those of activities needed to overcome informational barriers related to the appraisal of alternative energy investments that yield a global environmental benefit. |

### **Budget:**

The total project budget is US\$930,000 over a period of 18 months. UNEP's energy programme and related programmes on which the project will draw (the baseline activities) have a combined annual budget exceeding US\$5.0 million annually. Project funds will be supplemented by in-kind contributions from partner development banks and the value of baseline appraisal services to be paid by private sector partners.

<b>Project Budget (in US\$)</b>			
#	Component	GEF	UNEP <sup>1</sup>
1	Development of EE/RET appraisal tools and Web page	50,000	35,000
2	Preparation of project informational materials	25,000	25,000
3	Preparation of training materials, training workshops	95,000	25,000
4	Project publicity and outreach activities	0	35,000
5	Expert guidance provided through pre-feasibility and feasibility studies and appraisals of EE/RET alternatives	550,000	50,000
6	Project evaluation	30,000	10,000
Sub-total		750,000	180,000
<b>TOTAL</b>		<b>930,000</b>	
Associated UNEP baseline activities supporting project			7,500,000

<sup>1</sup>Value of UNEP in-kind contribution

## IMPLEMENTATION PLAN

### *Project Implementation Plan:*

The project will be executed by UNEP's Division of Technology, Industry and Economics working with selected bilateral and multilateral development banks. The project timeline is as follows:

ACTIVITY	PROJECT MONTH (total 18 months)									
	2	4	6	8	10	12	14	16	18	
develop EE/RET appraisal tools and Web page										
prepare project informational materials										
publicize project, conduct outreach activities										
prepare training materials, run workshops										
provide appraisals of EE/RET alternatives										
Monitor project										
evaluate project										

### **Public Involvement Plan:**

#### *Stakeholder identification:*

The project involves directly the stakeholders who stand to benefit from the project, namely private sector clients and their lenders. UNEP has discussed the project concept with officials

from multilateral and bilateral development banks, industry and trade associations, private companies, consultants, and the GEF Secretariat. Their suggestions influenced the project design and this proposal. Development banks have expressed an interest in joining the project and can help identify good candidates for the EE/RET investment advisory services through their financial intermediary partners in developing countries.

***Monitoring, information dissemination and consultation:***

The project directly aims at overcoming an information and knowledge barrier, and undertaking the bulk of the project will require the active participation of the direct project beneficiaries. Consultation with stakeholders and their direct participation lies at the core of the project.

UNEP will continuously monitor project impact and publicize the results of the project through its normal communication and information dissemination channels. The organization is strongly interested in helping overcome barriers to environmentally sound technologies and has underway or planned several initiatives linking the financial and environmental communities. Disseminating results from a successful project widely so as to influence other decisionmakers is a crucial element of the project from UNEP's perspective.

# LogFrame Matrix

## GEF MSP: Directing Investment Decisions to Promote the Transfer of Energy Efficient and Renewable Energy Technologies – A Private Sector Clearinghouse

<b>Problem Statement</b> Private investors and venture capital providers pay too little attention to potential GHG mitigation and economic benefits of investments in alternative energy efficiency and renewable energy technologies (EE/RETs)			
<b>Project Objective</b> Promote GHG mitigation by removing information barriers that prevent consideration of alternative technology choices, and redirect investments towards clean technologies	<b>Objectively Verifiable Indicators</b> Number of million metric tons of greenhouse gases not emitted as compared to the projected, non-intervention baseline	<b>Means of Verification</b> Evaluation reports based on technology choices and pre-project baseline estimates	<b>External Factors/Assumptions</b> Lending institutions will participate in the project; private sector borrowers are open to investing in EE/RETs if these are demonstrated to be viable and funding exists; cleaner technologies will perform as expected
<b>Outputs (project deliverables)</b> <ol style="list-style-type: none"> <li><i>Alternative feasibility and appraisal studies</i> that redirect pending technology investment decisions to more climate friendly technologies</li> <li><i>Appraisal tools and related technology information resources</i> that aid informed decisionmaking</li> <li><i>Trained investment officers</i> and their counterparts (trained on conducting alternative appraisals and aware of project services)</li> </ol>	<b>Objectively Verifiable Indicators</b> <ol style="list-style-type: none"> <li>Pre-feasibility and feasibility reports / alternative appraisals conducted of specific investment projects with a possible EE/RET component (15 pre-feasibility and 10 feasibility study/appraisals conducted and reports prepared)</li> <li>High quality, useful information materials prepared and made available widely to interested parties through electronic and other means</li> <li>At least 150 loan officers having participated in training workshops by month eight of the project and with increased skills/knowledge about EE/RETs as a result</li> </ol>	<b>Means of Verification</b> <ol style="list-style-type: none"> <li>Consultants reports and alternative investment appraisal documents; evaluation questionnaires provided by private sector entities / development banks using the project services</li> <li>Evaluation questionnaires of loan officers at lending institutions participating in the project; independent evaluation of project materials</li> <li>Evaluation questionnaires distributed at workshops; participant lists of workshops</li> </ol>	<b>External Factors/Assumptions</b> <ol style="list-style-type: none"> <li>Pre-feasibility and feasibility studies will prove persuasive to private sector entities and their lenders; loans will be extended on favorable terms</li> <li>Lending institutions will support workshops and release staff to participate in them</li> <li><b>Development banks, industry and trade associations, and other bodies</b> will collaborate with and help spread information about the project</li> <li>Borrowers and lenders possibly interested in EE/RETs will obtain and use informational materials made available to them</li> </ol>

<p><b>Main UNEP Activities</b></p> <ul style="list-style-type: none"> <li>a. Manage the project in partnership with development banks (the executing agents) to enable delivery of project outputs to interested commercial sector clients (US\$70,000)</li> <li>b. Provide contingent finance for alternative feasibility studies to private sector clients through development bank partners (US\$550,000)</li> <li>c. Monitor the impact of study outcomes on investment decisions to draw broader conclusions on the effectiveness of the approach/tools (US\$35,000)</li> <li>d. Retain and supervise consultants who develop the alternative appraisal tools and deliver related training to investment officers (US\$235,000)</li> <li>e. Undertake the M&amp;E work and provide annual PIR reports (US\$40,000)</li> </ul> <p>(total project budget: US\$930,000)</p>	<p><b>Inputs</b></p> <ul style="list-style-type: none"> <li>a. Administrative, technical, and partial financial support from UNEP</li> <li>b. In-kind contributions from partners in development banks, partner lending institutions, and private sector clients</li> <li>c. GEF funds to support project activities</li> </ul>
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