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REVIEW OF GEF ENGAGEMENT WITH THE PRIVATE SECTOR: EMERGING FINDINGS

(Prepared by the Monitoring and Evaluation Unit)

Table of Contents

List of Acronyms

APPTA	Talamanca Producer's Association
CABEI	Central American Bank for Economic Integration
CECP	China Energy Conservation Project
CEEF	Commercializing Energy Efficiency Finance
CFLs	Compact Fluorescent Lights
CIS	Commonwealth of Independent States
DSM	Demand Side Management
ELI	Efficient Lighting Initiative
EMCs	Energy Management Companies
EPCs	Energy Performance Contracts
ESCO	Energy Service Company
ESP	Environmental Service Payment
FCG	Fideicomiso para la Conservación en Guatemala
FESP	Forestry Environmental Services Payment Program
FIs	Financial Intermediaries
FONAFIFO	National Forestry Financing Fund
GEF	Global Environment Facility
GoI	Government of India
HEECP	Hungary Energy Efficiency Co-financing Project
IFC	International Finance Corporation
MBC	Mesoamerican Biological Corridor
M&E	Monitoring and Evaluation
MNES	Ministry of Nonconventional Energy Sources of India
NGO	Non-Government Organization
OP	Operational Program
OPS2	Second Overall Performance Study
PES	Payment for Environmental Services
PV	Photovoltaic
PVMTI	Photovoltaic Market Transformation Initiative
REEF	Renewable Energy and Energy Efficiency Fund
SACCOs	Savings and Credit Cooperatives
SDC	Solar Development Corporation
SDF	Solar Development Foundation
SHS	Solar Home Systems
SMEs	Small and medium enterprises
SDG	Solar Development Group
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme

FOREWORD

The current version of the Review of GEF's Engagement with the Private Sector is an interim report, and does not adequately cover the scope of work in the terms of reference (Annex 1). The final report will expand on a number of issues, especially by:

(a) adding to the analyses of GEF private sector policy, guidelines and procedures;

(b) broadening the definition of private sector actors engaged in GEF projects and including wider experiences particularly in the biodiversity area;

(c) documenting further the financial structure of projects, including its leveraging and replication efforts and potentials;

(d) making a consistent analysis of the various modalities and instruments of GEF to mitigate various types of risks and barriers to private sector engagement;

(e) updating project data and assessments; and

(f) adding to the conclusions, recommendations and lessons learned.

The final report is scheduled for February 2004.

I. INTRODUCTION

1. The GEF Instrument directs that the GEF will engage the private sector along with other key partners.[1] Initial efforts to involve the private sector in GEF operations were undertaken early during the pilot phase. The GEF Council approved a GEF strategy in 1996 which identified the "removal of market, information and other barriers" as the key approach to engaging the private sector. The strategy paper suggested that influencing overall market conditions in which business operates might offer the greatest leverage in many cases (indirect engagement), but that concrete investment projects might be required to "lead the way" (direct engagement). [2] A 1999 policy paper on the private sector identified several modalities that would be needed for barrier removal, including technical assistance and a range of non-grant financing modalities.[3] These included contingent grant, loans and partial credit guarantees.

2. GEF work with the private sector has been reviewed as part of previous studies of the GEF's overall performance. The Second Overall Performance Study (OPS2) of the GEF urged the GEF to "engage the private sector more extensively." It suggested "clear guidelines from the GEF Secretariat on new modalities " as well as to substantially increase "global environment-related private sector expertise" within the GEF Secretariat.[4]

3. At its May meeting in 2002, the GEF Council requested the Secretariat, in consultation with the Implementing Agencies, to prepare a *Private Sector Strategy*, for review and approval by the Council. As a prelude to the preparation of the strategy, the Monitoring and Evaluation Unit, in collaboration with the Secretariat and the Implementing Agencies, initiated this review in September 2002. (For the Terms of Reference of the review, see Annex 1).

4. While it is difficult to characterize a "typical" private sector player, what all private sector players do have in common is the objective of either earning a profit or yielding financial benefits. For the purposes of the statistical sample of 76 projects on which the study was based, "private sector enterprises" were broadly defined as those businesses that have commercial viability as their goal. However, the review covered a wider spectrum of GEF efforts to engage the private sector, including cooperation with government public sector institutions to create more effective market conditions for the private sector to operate towards attainment of global environmental benefits. While private sector players in developed economies normally share the common objective of either earning a private profit, GEF has in a number of countries with economies in transition, rendered assistance also to commercial enterprises partly or fully owned by the public sector. Included in the review was also GEF's assistance to private landowners in establishing private reserves for conservation of primary forests, or sustainable use of natural resources, especially in Central and South America.

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[1] *Instrument for Establishment of the Restructured GEF*, Washington, D.C. 1995, Paragraph 28
[2] *GEF Strategy for Engaging the Private Sector*, GEF/.7/12, March 7, 1996, p. 4.
[3] *Engaging the Private Sector in GEF Activities*, GEF/C.13/Inf.5, April 22, 1999, pp. 6-7.
[4] *Second Overall Performance Study*, pp. 108

5. Private sector participants in GEF projects are a heterogeneous group, ranging from international firms to small cooperatives and landowners. They represent widely differing interests and present varied challenges for engagement.

6. The review only covers projects in GEF's climate change and biodiversity focal areas, even if GEF's engagement has also spanned the ozone and international waters focal areas. GEF has also promoted considerable involvement of the private sector in the ozone area. However, this was not included in the review due to limited evaluation resources and a recent reduction of GEF efforts in that area.

7. The review was carried out in two phases. In the desk review phase, the review team identified those projects in the total GEF portfolio that included significant private sector components. This led to the identification of 76 ongoing or completed projects. Of these, 50 projects selected for a desk review for the purposes of statistical analysis. The results of that analysis are presented in the Portfolio Review in Section II below. A total of 26 main projects and sub-projects were chosen for field visits.[5]

II. PORTFOLIO OVERVIEW

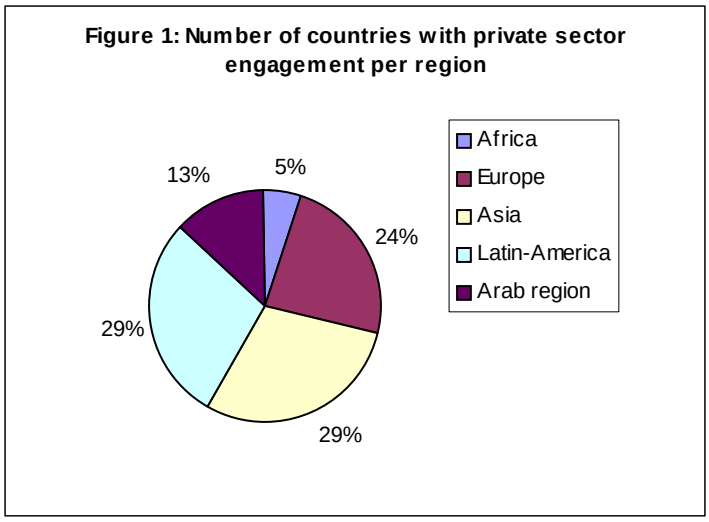
8. As of June 30, 2002, the GEF Council had approved 621 regular and medium-sized projects amounting to US$3.67 billion. Of these, 76 projects involved private sector engagement as defined in the review (see categories 1-3 below); an additional 29 projects are public sector projects in energy efficiency (11) or biodiversity conservation (18) which indirectly affected the role of the private sector (see Annex 2).

9. Among the projects with private sector engagement, the distribution was as follows: climate change (53); biodiversity conservation (19); international waters (1); and multiple focal areas (3). The list of the 76 projects are included in Annex 2.

10. Within the focal areas, climate change projects on energy efficiency (OP5) and on renewable energy (OP6) are almost equally balanced, with 22 and 23 projects each. The solar photo-voltaic projects dominate renewable energy; virtually all of these projects cooperate with local SMEs. In biodiversity, private sector collaboration can be found in a number of protected areas development projects and in sustainable use of natural resources.

11. The projects are not as evenly distributed geographically. The 76 projects in the review analysis were spread over 38 countries in the five regions. A total of 21 countries had only *one* GEF project with private sector cooperation, whereas 17 countries had more than one such project. There is also a concentration on regions that are more developed economically and where the private sector and markets are relatively mature. See Figure 1.

[5] This includes 16 main projects plus a number of selected subprojects under the IFC's Photovoltaic Market Transformation Initiative (India, Kenya), Efficient Lighting Initiative (Czech Republic, Hungary), Small and Medium Enterprises Program (Bangladesh, Costa Rica, Guatemala, Honduras - 2 projects, and Poland). The total number of projects visited was 26.



12. GEF projects engage the private sector in varying degrees. The review identified three different types of projects, dependent on the degree of the financial burden or risk borne by the private sector partners.

(a) Category 1: More than 50 percent of the financial burden or risk is borne by one or several private entities. The 16 projects in which higher risk was borne by the private sector mainly employed some form of non-grant financial instruments, such as loans, partial risk guarantees, contingent grants, quasi-equity, and equity. Although this represents less than a quarter of the projects, this category yields some of the more interesting lessons learned and is therefore a key focus on this report. Over 90% of these projects fall within climate change. The IFC implemented about half the Category 1 projects.

(b) Category 2: Some, but less than 50 percent, of the financial burden or risk is borne by one or several private entities. The World Bank and UNDP led this category with 11 and 8 projects respectively.

(c) Category 3: No financial risk or burden assumed by the private sector. The private sector actor plays a non-remunerated role (e.g., advisory services, consulting, procurement, participation in steering committees, etc). Nearly half the projects fall into this category, including most of the biodiversity projects (79% of the 19 biodiversity projects entailed no risk for the private actors). With regard to the Implementing Agencies, about half of the World Bank and UNDP projects fell into this category, about a third of IFC's and two-thirds of UNEP's.

III. POLICY FRAMEWORK FOR PRIVATE SECTOR ENGAGEMENT

13. The framework and policies for GEF's private sector engagement are laid down in two GEF Council Papers in 1996 and 1999.[6]

Purpose

14. The purpose of GEF's engagement of the private sector is to attain enhanced levels of global environmental benefit, in light of the following points noted in the 1996 and 1999 Council documents due to the following reasons:

- Private investment flows were far more important than official development assistance to the same countries.
- Privatization of state-owned electric utilities, which accelerated in the 1990s, suggested the need to work more with the private sector in the energy sector.
- Private sector actors can transfer state-of-the-art technology for energy efficiency and other environmentally desirable objectives;
- Project sustainability and replication are often dependent on conducive conditions for further private sector investments;
- GEF support in this area offers prospects for further mainstreaming of similar efforts by the Implementing Agencies.

15. In addition to energy, potentials were also envisaged in biodiversity including medicinal drugs and genetic resources in agriculture.

16. Rather than aiming at supporting the private sector GEF policy has sought to remove barriers to the promotion of market transactions either indirectly, by affecting the conditions under which the private sector operates, or directly by helping the entry of firms into a market which is still untested.

Modalities of Support

17. In the 1999 Council Paper, four special modalities are identified for GEF engagement:

(a) Grants have been aimed at indirect stimulation of private sector reforms through barrier removal activities. These included support for policy reforms, standard setting and other types of capacity building. The cooperating partners at the country levels have more often been the public sector than the private sector.

[6] *GEF Strategy for Engaging the Private Sector*, GEF/C.7/12, March 7, 1996; *Engaging the Private Sector in GEF Activities*, GEF/C.13/Inf.5, April 22, 1999.

(b) Non-grant modalities which included contingent grants, loans, partial credit guarantees, investment funds and reserve funds. Non-grant modalities were considered most appropriate where projects were considered potentially economic, but where there might be lack of local experience, environmental uncertainties, or other impediments. These modalities were considered to increase the cost-effectiveness of GEF resources by reducing initial outlays, induce higher financial discipline and creating a potential for repayment on the investment. Contingent financing returns were to be carefully focused on the task specific to the GEF to avoid underwriting risks unrelated to the GEF purpose. The Council paper directs that the project sponsors cover conventional commercial and other baseline costs and that there are carefully structured risk-sharing arrangements.

(c) Alternative bankable feasibility studies were devised in situations where potential investors lack information about alternatives to conventional practice that could provide global environmental benefits at comparable or even lower costs. The bankable study would be financed by GEF, and made available to private sector financiers or other private sector partners for project funding. For GEF the end result would be comparable to a demonstration project. A conservative approach would be to divide the study costs between GEF and the private sector partner, with repayment to GEF if the project goes ahead.

(d) Progressive partnerships mean direct collaboration between GEF and a company or business association, with sharing of risks and project costs. The purpose would be to create a commercial scale demonstration of innovative approaches.

18. Until now GEF has essentially employed the modalities (a) and (b)—grant and non-grant financial modalities. Modality (c)—bankable studies—was only partially employed in one project. Modality (d)—progressive partnerships—was discussed with one company, but was not realized.

Project Approval Process

19. Both Council papers emphasized that simplified and shorter decision-making processes were required to work effectively with the private sector, because of its needs to make quick decisions with regard to the market. Complex and detailed requirements would stifle initiatives. For this reason GEF proposed to present clear, simple and rigorous rules and practical guidance.

Awareness of the GEF

20. The 1999 Council paper recognizes that the business community is generally unaware of the GEF. To remedy the situation, the paper states that private sector projects will be primarily identified through the Country Dialogue Workshops, which are implemented by UNDP.[7]

Sharing of Risks - Incentive Structure

21. The 1996 Council paper recognizes the need for sharing of risks between the private sector, project proponents and the GEF. That paper notes that a company's interest in access to GEF funds would depend on the extent to which the GEF project could mitigate the "extra costs and risks inherent in a global environment-focused project…." The paper envisaged the development of "best practice guidelines for defining incremental costs in private sector projects." The 1996 paper noted that one incentive for a company to undertake a global environment-focused project would be the provision of contingent financing, which would cover potential losses, but which would not require any funding in the event a project is successful.

Replication

22. It is central to the GEF mandate and its policies indicate that innovative and promising technologies or approaches should be replicated in other markets. While replicability would be ensured to some extent through successful business ventures, GEF was also considering complimentary replicability mechanisms, like the initiation of separate projects which could undertake dissemination efforts and effectively communicate newly proven and successful business opportunities.

IV. CLIMATE CHANGE

23. The overall objective of GEF-financed activities is to support sustainable measures that minimize climate change damage by reducing the associated risks or adverse effects of climate change. The activities relevant to private sector engagement include long-term mitigation projects and enabling activities to facilitate implementation of responsive measures. The long-term measures are supported in the context of Operational Programs: OP # 5 (removal of barriers to energy conservation and energy efficiency), OP # 6 (promotion of adoption of renewable energy by removing barriers and reducing implementation costs; OP # 7 (reduction of the long-term costs of low greenhouse gas-emitting energy technologies), and OP #11(promoting environmentally sustainable transport).

24. Projects assessed under this review fall largely under Operational Programs 5 and 6; the number of projects with private sector engagement under Operational Programs 7 and 11 is too limited to form the basis of an evaluation.

[7] While the CDW have attracted 6% of participants from the private sector on average during a 3-year period, PIRs and the Independent Evaluation of the programme recommended that this percentage should increase. Other findings indicated that (a) GEF operational focal points often had difficulty in identifying appropriate representatives to participate from the private sector and (b) in many cases the private sector was not sufficiently motivated to increase their knowledge about GEF.

25. Projects that have been reviewed through the desk review and the field visits use modalities that in general engage the private sector either directly or only indirectly. These direct and indirect modalities coincide with the "supply push" and "demand pull" approaches to increasing the adoption of energy-efficient or renewable energy products, services, and/or practices.

26. Supply-push strategies include: providing technical assistance and know-how transfer to manufacturers to upgrade their product designs; supporting minimum efficiency standards and regulatory mechanisms; facilitating voluntary agreements with manufacturers and distributors; piloting new distribution mechanisms through retailers or electric utilities; providing financial incentives to producers; providing quality testing; and providing financing for manufacturing upgrades. Demand-pull strategies include: educating consumers and professionals about the characteristics, costs, and benefits of the energy-efficient or renewable energy technology; running media campaigns to increase consumer awareness; reducing retail prices of technology through rebates, subsidies, and/or bulk purchases; providing consumer financing; offering buy-back/recycling programs, and establishing certification , standardization and labeling programs.

A. Energy Efficiency

Overview of Approaches and Results

27. GEF action towards energy conservation and efficiency is based on its *Operational Program #5 – Removal of Barriers to Energy Efficiency and Energy Conservation*, which supports removal of barriers to large-scale application, implementation, and dissemination of energy-efficient technologies, and by promoting more efficient energy use. From the perspective of engaging the private sector, these barriers are often perceived as "risks" that stand in the way of market development and commercialization of energy conservation related products.

28. Energy efficiency projects are more to be found on the energy use-side (although some opportunities to reduce energy consumption at the transformation level do exist: co-generation for example). Therefore, and because the actions have to be oriented towards the energy consumers (demand pull actions), in the energy efficiency business the public sector has to play a key role through the setting up of an adequate energy efficiency policy, the creation of an appropriate regulatory framework and the implementation of capacity building measures.

29. From this standpoint, it has to be acknowledged that public sector energy efficiency programs can have a major impact in fostering market transformation and removal of barriers that would allow for accelerated private sector engagement.

GEF Experiences with Different Approaches

30. This sub-section reviews GEF experiences with the use of three different approaches for removing barriers and/or promoting or reducing risks to private sector investment in energy efficiency: market development for energy efficiency investments, support to financial intermediaries, promotion of new market mechanisms (ESCOs).

Market development for energy efficiency products.

31. The creation of a new market for energy efficiency products or services requires, on the one hand, the awareness of energy consumers is raised and that they become confident regarding the quality and the performance of the proposed products or services.

32. Promotion of certification, standard-setting and labeling has been one modality through which the GEF has engaged private sector stakeholders. The GEF has allocated grants, mainly to project components dealing with standard-setting, certification, awareness raising, etc, through both public sector agencies and private sector actors. Several projects have successfully helped initiate market development for energy efficiency products. Three of these projects have been included in the present review.

33. Two projects in China under implementation through UNDP – China Efficient Refrigerators, and China Efficient Lighting – have successfully demonstrated standard setting, certification, and labeling activities to promote consumer awareness and build markets for energy efficient products. These activities are beginning to create a market for efficient refrigerators and efficient lights in China. From 1999 through 2001, participating refrigerator (and compressors) manufacturers, most of them being now private companies, have achieved average weighted energy efficiency gains through a new advanced design of their products of 9.6%. Production and sale of highly efficient refrigerators (consuming <40% of current energy use standard) has increased from less than 1000 units in 1999 to over 240,000 units in 2001 and the manufacturers actively participate in the standards-setting. In the efficient lighting products project, 300 manufacturers (out of a base of 5000) are involved in the awareness campaign for the use of efficient bulbs but contribute no resources.

34. While GEF support for certification, standard-setting and awareness-raising related to energy efficient products has been generally successful, GEF projects have sometimes lacked concrete contribution by the important private sector actors, in particular the relevant manufacturers, beyond their participation in working groups or as advisors. In the absence of government commitments to finance these activities, this can be a critical weakness in the use of this approach.

35. This is particularly obvious with the Efficient Lighting Initiative (ELI) project implemented through the IFC in several countries in the world. The review included the assessment of the implementation conditions of ELI in Hungary and the Czech Republic. According to the IFC, the project maintained, on purpose, a stance of detachment from the manufacturers in order to maximize the credibility of the lighting products logo (the green leaf), although this logo is the result of a purely private initiative. In keeping with this approach, the project did not seek to involve the manufacturers in designing or supporting the labeling scheme or associated marketing activities through financial contributions or other activities. Manufacturers who have profited from the awareness campaign were mostly reluctant to make any financial contribution to the scheme. Distributors, large retail chains, small retailers, lighting installers, and financial institutions were also important market actors whose involvement and support is needed to make the new logo sustainable: without their commitment

to continue marketing activities, it is likely the existing label will disappear once GEF support is terminated. It should be also underscored that the international manufacturers involved were not willing to provide data regarding the campaign impact in terms of sales increase. This led to the launching of evaluation surveys, which are expensive and probably much less reliable than the actual figures that could have been obtained from the manufacturers. Developing a market transformation process, through a kind of labeling procedure and without a clear engagement of the private stakeholders appears then to be quite challenging.

36. In the China Efficient Refrigerators, grants were used for technical assistance and know-how transfer to domestic manufacturers. Providing a grant was less complicated than disbursing a loan or guarantee for these domestic manufacturers in China: a relatively small grant (5 –10% of total funds needed at the enterprise level) was used mostly for technical assistance, study tours, dissemination of information, and for testing equipment for a few manufacturers. This funding helped achieve the participation of most of the important manufacturers, contributing to the success of the project. Such an approach is appropriate under situations where a market for energy efficiency is non-existent and initial demonstration project are imperative to kick-start the market. It should be however noted that the context in China is particularly favorable, since a number of activities supported by various organizations have already taken place for many years in the field of certification, labeling and standardization of energy-efficient products. However, the Government had not started working on certification, labeling and standardization related to efficient refrigerators in a comprehensive manner, and manufacturers were isolated. This project seems to have played a catalytic role in bringing about market transformation and achieving the full support of both government and manufacturing.

Promotion of new market mechanisms (ESCOs)

37. An Energy Service Company (ESCO) or similar structures (third party financing companies) have in Europe and USA long been recognized as powerful private sector mechanisms for overcoming barriers to energy efficiency investments. An ESCO invests in energy efficiency projects based on a contract between the client and the ESCO. The client is obligated to pay the ESCO a portion of the energy savings actually realized after the project has been implemented over the contract duration. At the end of the contract, ownership of the installed equipment and all future energy savings revert to the client. These contracts contain an element of profit for ESCOs, but the ESCO bears the risk that anticipated savings are not achieved.

38. Investments in ESCOs in developing countries have been hampered by a lack of familiarity of stakeholders with this concept and the lack of understanding on the part of financial institutions and many potential public or private clients of the energy performance contracts (EPCs) proposed by ESCOs.

39. One approach to overcoming these barriers was demonstrated in the China Energy Conservation Project (CECP), implemented through the World Bank. The barrier to access to financing for Energy Management Companies (EMCs) was overcome by the provision of a credit line by the World Bank to the EMCs covering up to 75% of each subproject's investment cost. With the benefit of GEF and World Bank financial commitments already in place, one of

the pilot EMCs successfully pioneered a strategic partnership and line of credit arrangement with a Chinese commercial bank by demonstrating a successful track record of subprojects, strong management, and a viable business plan. The line of credit, in combination with technical assistance, has been instrumental in helping local financial institutions overcome their initial reluctance to invest in what had been perceived as risky energy efficiency activities.

40. Grants however have been also necessary to buy down risks to create incentives for investment. Chinese authorities might not have accepted a sovereign World Bank loan without an accompanying GEF grant and the shareholders for the three pilot EMCs provided equity capital only because the GEF grant was included in the financial package to finance the first demonstration projects in each identified product line of the EMCs. The challenge remaining is to induce the Chinese financial sector to replace the World Bank and donors as the main source of credit and, possibly, equity to support the development of the ESCO business in China, on the basis of the first three pilot projects.

41. Other projects reviewed in the GEF portfolio aim at fostering the setting up and/or the development of private ESCOs. One is the project implemented by the UNDP in Kenya which targets local SMEs already involved in the energy efficiency business with the view of making them evolve towards the creation of fully-fledged ESCOs through adequate training and financial support from local banks . This project, however, is developed on the basis of grant financing and does not involve private sector contribution, beyond the moral support of the Kenya Association of Manufacturers. The Hungary Energy Efficiency Co-financing Project (HEECP), through providing technical assistance and partial guarantees (see below) is also a way to support the ESCO business development. One of the banks active under the scheme established an ESCO at the outset of the HEECP program. The parent bank is now said to replicate the model in other markets.

Support to financial intermediaries

42. It is well known that financial institutions have difficulties to lend for energy efficiency improvements in most developing countries or in economies in transition. Two key barriers, among others, can be identified: perception of high credit risk by local financial institutions because of little experience with energy efficiency project finance; and poor capacity to prepare projects because of high preparation costs and weak capacity by project developers. Therefore, often, local banks provide poor service for these kind of projects. The banks require high level of collateral, and sometimes significant down payment from the project developer. The banks are reluctant to provide long term financing and often have poor understanding of the technical part of the projects and are not the energy costs savings as a revenue for the project. This has constituted important obstacles to energy efficiency finance.

43. To overcome these barriers, an interesting financial model is the one implemented through the IFC in Hungary via the creation of a guarantee facility (HEECP). This facility has two components: provides partial guarantees on a subordinated recovery basis to local banks for specified projects they would not dare to finance without additional support as well as technical assistance for building capacity in financial institutions and ESCOs. The guarantee facility's main objective is to expand availability of commercial financing for energy efficiency

projects in Hungary and to build a sustainable lending market for energy efficiency investments. A technical assistance component is also necessary through donors' grants to establish project development capacity within the banks and help them develop project financing methods based on cash flows analysis.

44. The number of projects that have been financed under the guarantee scheme so far seems, however, relatively small when one consider that HEECP started its operations in 1996. In addition, 25% of the guarantee facility remains unallocated for the time being, while a relatively large percentage of the allocated portion has not been used yet by the banks involved (four private banks representing a very large share of the Hungarian banking sector have signed a Guarantee Facility Agreement).

45. However, the impact of the guarantee will have to be measured not just by the number of transactions directly guaranteed, but also by the assessment of whether financial institutions have become able to pick up on the guaranteed pilot loans and develop new business lines without need for further guarantees. Through providing the guarantee via local selected banks and through financial advisory work support to prepare investment memorandum, the Facility helps these banks as well as ESCOs to implement more projects. This in turn helps ESCOs to raise equity and to develop. The Facility can also support very small project developers to have access to financing, and supports ESCOs in negotiating better conditions from the banks. It would be therefore essential to evaluate the Facility's impact in terms of financial market transformation, beyond the specific projects realized under the guarantee scheme.

46. Finally, it has to be noted that many other incentives from public local sources and international organizations have also been introduced during the same period in Hungary and have all contributed significantly to the increase in competition, bank appetite for energy efficiency projects, and openness to innovative approaches. The Hungarian government and local authorities have developed a number of financing instruments to support energy efficiency: municipal guarantees, soft loans, and grant facilities. Other initiatives started in the early 1990s by the bilateral agencies have helped create a favorable environment for energy efficiency. Therefore, the degree to which the development of the financial market for energy efficiency investments in Hungary can be attributed to HEECP and its partial risk guarantees is difficult to estimate.

Conclusions for the Energy Efficiency Section

47. The GEF seeks to mainstream energy efficiency market transformation into the regular operations of the Implementing Agencies, in order to leverage additional funding for that objective and to ensure risk-sharing. Concessional support is required in the initial phases to prime the pump for the replication and catalytic market transformation that GEF operational strategy aims to achieve, but an objective of the strategy is to create conditions in which the IAs as well as other financial intermediaries (FIs) will be able to make follow-up funding on near-commercial or commercial terms for energy efficiency investments.

48. Policy choices decisions regarding net impact of GEF assistance for energy efficiency center on tradeoffs between engaging in close to commercial markets and markets that can

provide significant global benefits. In the energy efficiency portfolio, some of the host countries, particularly in the transitional economies in Eastern Europe, already had relatively advanced energy efficiency sectors.

49. Concrete results have been achieved through projects related to standardisation, certification and labelling procedures, with the participation and/or the support of the manufacturers and private stakeholders. The projects in China have shown a vested interest from, at least, some of the local equipment producers, and a willingness to cooperate in the development of efficiency standards. These manufacturers are developing production lines and final products, even without GEF financial support, to raise their quality criteria to the international level. The GEF role in promoting and facilitating the establishment of these standards, and in co-ordinating the interventions of various other organisations and agencies in this respect, have partly been of utmost importance to achieve concrete and important results, through a fruitful dialogue with the private sector.

50. The use of certification and labeling as a primary non-financial mechanism for supporting market transformation is successful when sustainability is ensured either by government or private sector commitments. In the absence of government commitment, the failure to obtain full ownership of a certification and labeling system by the relevant manufacturers and other private sector actors may put its sustainability at risk.

51. Regarding the setting up of innovative financing mechanisms in the energy efficiency sector, the review has allowed to highlight the potential interest of two key concepts: the establishment of guarantee funds and the development of "third party financing" companies or ESCOs. Although the implementation of the guarantee fund project has been relatively slow in terms of making local financial institutions participate in the guarantee scheme, the results achieved so far demonstrate the validity of the concept and the interest that would reside in developing it further in riskier countries. The projects which have been dealing with ESCOs promotion and development are particularly impressive in terms of setting up specialized private entities as well as realizing a number of energy efficiency investments. These projects clearly offer a high replication potential, a significant impact on meeting energy efficiency targets and an attractive leverage ratio through the raising of additional financing from private investors and local banks.

52. Technical assistance or capacity-building, particularly in the form of training in project financing methods, to raise the awareness of the senior management of banks, has been a key modality in mitigating the risk of lack of familiarity with energy efficiency investments. Many of the projects reviewed have suffered important delays compared to the original schedule, which constitutes an important issue both for cost-effectiveness reasons and because it hampers the replication potential.

53. The GEF review of the three energy efficiency product projects completed by 2001[8] (Mexico, Poland and Thailand) reported significant impacts of projects on markets. Analysis of market indicators shows that the GEF's market transformation programs have indeed begun to

[8] *The GEF Energy-Efficient Portfolio*. Monitoring and Evaluation Working Paper 9, 2002.

transform some market niches for energy-efficient products, and in so doing, have already achieved CO2 emissions reductions or are demonstrating highly cost-effective potentials for doing so.

54. For example, the Thailand project resulted in the compete transformation of the fluorescent-light market, representing 20 million lights sold annually; market share of the more-efficient lights went from 40 to 100 percent during the project; the market share of efficient refrigerators went from 12 to 96 percent and the share of efficient air conditioners went from 19 to 38 percent.

55. Evidence is emerging that some of the market changes brought about by GEF-supported efficiency projects are sustainable. High-efficiency refrigerators and florescent lights are now the norm in Thailand, and the highest level of efficiency for these products became the dominant unit on the market. In fact, surveys show that a variety of energy-efficient appliances promoted through the Thailand project have sustained markets, although some programs, like the labeling program for air conditioners, appear to have been less effective at achieving sustainable changes. In many projects, however, sustainability is difficult to assess because of the lack of established baselines and surveys of non-participants.

56. Experiences from GEF market transformation projects are catalyzing similar activities locally and in other countries. The three completed projects in Mexico, Poland and Thailand in the portfolio are all being replicated in some form. The clearest example of replication is in Mexico, where the original GEF-supported utility DSM program led to further energy efficiency programs for lighting, with almost five million additional CFLs sold, as well as to programs for building insulation and air conditioning.

B. Renewable Energy

Overview of Approaches and Results

57. The GEF has engaged in renewable energy projects through *OPs #6 and #7.* The goal of *OP#6* is to promote the adoption of renewable energy by removing barriers and reducing implementation costs. OP#7 is aimed at reducing the long-term costs of low greenhouse gas emitting energy technologies. The vast majority of the projects in the GEF portfolio are based on photovoltaic (PV) technology. There was relatively little engagement with the private sector in mini-hydro, geothermal energy, use of biomass or household wastes, or methane recovery from landfills.

58. In the renewable energy sector, private investors as well as the financing community and the manufacturers or products distributors have (or should have) a vested interest in supporting and participating in actions that could lead to the promotion of renewable energy technologies. Actually, all the projects reviewed show a genuine private sector involvement, although the degree of participation differs considerably from one project to another.

59. The main goal of these projects is to support the penetration of the PV technology. They are based on a pre-established assumption that PV have a positive impact in terms of gas

emissions reduction (without this being really verified) and the projects rationale is mostly to help develop business opportunities through a financial package (loans and/or equity and/or grants for technical assistance) to local equipment suppliers and distributors.

60. As a result, the projects reviewed for this section are mostly of the supply-side type, although some of them also include action components directed to the demand-side. Local financial intermediaries are also involved in some of these market transformation projects, in order to facilitate the financing of a potential end-users demand.

61. The GEF has been particularly active and innovative in the modalities it has tried to use to engage the private sector in the renewable energy field as well as in the financial instruments developed. Several projects were reviewed from this perspective for the purpose of the present study, all of which being related to PVs[9]. They fall under three categories: the setting up of private equity funds, the direct support to SME projects, the use of a multi-country and multi-instruments facility.

Setting up of Private Equity Funds

62. In its policy paper on engaging the private sector in GEF activities (GEF/C.13/Inf.5 of 1999), the GEF Council indicated several possible alternative financing mechanisms, of which "investment funds" may have been the most complex, and certainly the one that was based to the greatest extent on private sector principles. The GEF funding (grant or non-grant) intended to support for-profit, private sector environmental funds, with a possible return on capital and with the goal of leveraging commercial capital. Both debt and equity support were envisioned.

63. The IFC, with its mandate in private sector investment, has led the experimentation with investment funding in the GEF portfolio. In the renewable energy sector, two such projects have been analyzed in the course of the present review: the Renewable and Energy Efficiency Fund (REEF) and the Solar Development Group (SDG).

64. The Renewable Energy Efficiency Fund (REEF) is arguably the most ambitious project in the private sector-related portfolio. However, "a combination of markedly changed market conditions over the last two years, a limited number of attractive large investment opportunities, and several other factors compelled investors in REEF's private equity fund including IFC to close it down last year."[10]

65. The project aimed to catalyze private sector investment, mostly in the renewable energy sector in emerging markets, targeting both larger and smaller investments deals. The GEF co-financing facility of about US$23 million was intended for the smaller enterprise deals (<7 MW), as these are often more complex, yield lower absolute return and are therefore less attractive to investors. Instead, however, the investors pursued a strategy of building a conventional investment portfolio with larger, more commercial, grid-connected renewable

[9] Grameen Shakti SME sub-project, Solar Development Group, Soluz Hunduras SME sub-project, Photovoltaic Market Transformation Initiative (PVMTI) India, PVMTI Kenya and Uganda PV Project.
[10] IFC memorandum, Realigning and Downsizing the IFC/GEF Renewable Energy and Energy Efficiency Fund (REEF), May 27, 2003.

energy projects before turning to smaller projects. This strategy failed when such potentially profitable projects did not materialize.

66. The SDG project aims to demonstrate that a traditional private equity/venture capital fund approach can overcome the key barriers to growth of PV in off-grid segments and attract private sector investors for increasing the delivery of solar PV systems to rural households and businesses in developing countries. It has two components: (a) Solar Development Capital Ltd. (SDC or the Fund – a private equity investment fund and (b) Solar Development Foundation (SDF or the Foundation – a technical assistance entity).

67. The opportunities for equity investments in PV enterprises that met the Fund criteria were more limited than originally forecast. Expectations about returns were too optimistic, based on the faulty assumption in the original feasibility study that PV prices would decline more than what has been the case. The project pipeline was overvalued and the small and medium size companies targeted for possible equity or quasi-equity investments were still too immature and financially fragile. They needed longer periods of technical and managerial support from the Foundation before the Fund could be able to invest in their businesses. The project has been restructured to widen the scope of the Fund and to include debt, guarantees and other non-equity instruments and to reduce its expectations regarding rates of return on investments. Even so, it may not be able to place the total SDC capital in suitable projects.

68. Although the two projects differ considerably in size and ambition, purpose and financial and institutional structure, they yield interesting lessons learned across experiences. Some of the key challenges include mobilizing resources, identifying bankable projects, efficient fund management and capacity development.

69. An impressive amount of private funding was mobilized in the initial equity funds (through complex and time consuming processes), in addition to a sizeable part of funding coming from public sources. From this standpoint, these two projects have achieved remarkable results. Although this might be because wrong expectations regarding the investments rates of returns and the potential market in the PV area had been initially raised, it nevertheless demonstrates that private investors can be attracted to these kind of public-private partnerships.

70. All projects have been over-ambitious in their expectations of markets, rates of return, timeframes and potential investees. Although funds were available, REEF faltered because of lack of investment prospects with rates of return deemed sufficiently high.

71. Any equity and venture capital fund require relatively complex management structures and mechanisms. The Executing Agency was, in each case, involved in the supervision mechanisms of the fund managers. However, in both projects, it is questionable whether the selected fund managers were the most qualified, taking into consideration their experience, track record, size and staff resources.

72. The need to develop the technical and business capacities and skills of the investees, as well as the FIs, was underestimated by GEF. In SDG, the work of the Foundation in technical assistance outweighed the capital investments of the Fund.

Direct Support to Local SME Projects

73. On the demand side, the problem is to reduce the investment cost and to enable people to buy through adequate financing mechanism. In the Uganda PV project implemented by UNDP, this has been targeted, on the one hand by a credit facility granted to a local commercial bank to be used for vendor's financing in order to help the equipment suppliers to procure PV systems in bulk so that freight costs can be reduced and economies of scale can be achieved. But this has not worked very well, due to the lack of creditworthiness of the borrowers and their inability or unwillingness to provide the collaterals demanded by the bank. On the other hand, an interesting financing mechanism has been tested, as a pilot phase, involving six "village banks". These are private micro-finance institutions, granting very small and short term (not more than six months) loans to their shareholders, generally for productive activities susceptible to quickly generate cash. The system works pretty well, with very few defaults and is very flexible, adapting the reimbursement schedule to the actual cash generation. Some delays in the payments can be experienced, but since the interest rate is high (4%/month), the borrower has an incentive to timely repay. The limitation of these banks activities comes from their inability to provide large funding because they can just use the deposited savings of their clients, which cannot constitute important amounts. Therefore, for the pilot phase, the six selected village banks have had access to a USD 350,000 revolving fund set up by the UNDP. A US$124 million follow up project (Energy for Rural Transformation) has been approved which includes US$12.1 million of GEF financing for renewable energy electrification.

74. In a similar way, the Grameen Shakti project in Bangladesh is an other example of GEF efforts to overcome the barrier of lack of access to credit. The SME Program provided a loan with risk incentives and compensation to Grameen Shakti to develop a network of sales and services of PV systems for micro-enterprises in rural areas to generate additional and alternative income for system owners. The Grameen Shakti has exceeded expectations in terms of PV systems sold. The World Bank is financing a major expansion of rural electrification through solar energy to target 64,000 systems in five years. However, there is still little evidence of private sector activity without government or donor support.

75. Another example is given by the Soluz project in Honduras. This SME sub-project is aimed at developing the off-grid rural photovoltaic (PV) solar home systems market in Honduras by supporting a fee-for-service company, Soluz, Inc. GEF provided debt financing and a small amount of equity financing. Questions have been raised about the realism of the initial market assessments and ability to pay, especially in the wake of Hurricane Mitch. However, it appears that many of the homes targeted expect to be connected to the grid in the near future as a result of government policy to extend the grid to these areas.

The Use of a Multi-Country, Multi-Instrument Facility

76. The example reviewed during the study is the Photo Voltaic Market Transformation Initiative (PVMTI) project which is intended to be "a strategic intervention to accelerate commercialization and financial viability of PV technology in the developing world", consisting of "selected concessional investments in private sector market development projects" in three

countries (India, Marocco, Kenya). The key goal of the project is "to provide successful examples of sustainable and replicable business models than can be financed on a commercial basis." The project duration is 10 years.

77. PVMTI India provides a mix of equity, concessional debt, partial risk guarantees and small amount of contingent grants–equity funding that becomes grant funding if the businesses do not become profitable. SELCO, the most recently approved participant, is said to be more heavily reliant on end-user finance and may add to PVMTI-induced expansion of end-user finance. However, participants seem to be focusing mostly on retail sales of PVs for street lights, power packs, and power plants, and less on the SHS market, which requires higher-risk term finance. Another participant, Shell Solar India, is focused on SHS sales, both on credit and with full payment. It has sold 4,500 SHS (Project Implementation Review 2003). Determining whether the mix of instruments employed for a given sub-project is optimal, and whether the degree of concessionality offered is adequate would require detailed scrutiny of business plans, financial models, and due diligence exercises. This was not possible so far given the time constraints.

78. The subprojects reviewed so far have generated little or no PV market activities beyond those directly funded by PVMTI itself. However, at this time only US$7.2 million or about a third of the grant has been disbursed, and the program is only expected to end in 2007.

79. In Kenya, at the time of the visit (January 2003), only one project had been approved for a total amount of USD 600,000 of which USD 180,000 were to be disbursed soon. However, since then, another USD 2 million deal was finally signed with Barclays Bank while a similar one has been signed with another bank (EBS). These deals almost exhaust the USD 5 million allocated to Kenya by the PVMTI facility and are mostly directed to provide credit facilities to the Savings and Credit Cooperatives (SACCOs) which will on lend to their members (essentially tea farmers), through a micro-finance approach.

80. Regarding the private sector involvement issue, it is difficult to have a definitive judgement because of the very slow implementation pace of the project. For the moment, no significant market transformation can be highlighted and the penetration of PV systems as a result of the project remains limited. A small number of equipment suppliers are on the market , but often the PV trading is just a marginal activity alongside their core business. Finally, the banks are slow to consider the PV sector as a market niche deserving some more investment and risk taking on their side.

Conclusions for the Renewable Energy Section

81. Keeping in mind the nature of the projects reviewed, the conclusions should be restricted to the PV issue.

82. In the targeted countries there is a relatively low demand for PV given the existing pricing and other policies

83. The strength of sponsors, availability of end-user financing and ability to pay are the most important determinant of demand for energy services and thus constitutes a primary barrier to market development.

84. In addition, spread-out rural customers are difficult and expensive to access and service, adding more costs to the rural energy delivery business model. Many of the targeted clients expect to be connected to the grid in the near future as a result of government policy to extend the grid to these areas.

85. Except in one case, PV manufacturers have not been involved in market creation activities. They are more interested and focused on developed countries markets, where governments have the means to subsidize large on-grid PV projects. In addition, other actors of the chain (distributors, installers) are generally too weak financially to be able to play a key role. These projects should therefore include, during the design phase, an in-depth assessment of the concerned private sector, in terms of its structure, organisation , strengths and weaknesses.

86. The renewable energy projects reviewed have utilized a mix of financial instruments including grants, debt financing and some equity and partial risk guarantees. No clear conclusions about the usefulness of the individual financial modalities can be reached. The soundness of the business plan of the ventures supported appears to have been more important to project results than the mix of financial instruments.

V. BIODIVERSITY

87. The GEF has not yet prepared specific guidelines for its engagements in this sector. Relatively little knowledge is available on the consequences of commercializing the diversity of nature in developing countries. For the most part, payments for environmental services and biodiversity remain nascent and experimental.

88. The biodiversity projects that are the subject of this review fall into three broad categories: (1) projects that involve commodity based agro-forestry products; (2) projects with eco-tourism elements; and (3) projects that involve payments for environmental services delivered by ecosystems. A total of eight biodiversity projects were visited for the review.

A. Commodity-based Agro-Forestry

89. The GEF commodity-based agro-forestry projects included in this review are aimed at encouraging private farmers to cultivate commodities (e.g., cacao, coffee, and timber) within conservation landscapes or using sustainable harvesting practices by obtaining certification for these products and thus earning associated market premiums. The projects reviewed for this section are *Biodiversity Conservation in Cacao Agro-forestry* project in Costa Rica, the *Coffee and Biodiversity Project* in El Salvador and the *FCG* (*Fideicomismo para la Conservacion en Guatemala*) sub-project in Guatemala.

90. *The Coffee and Biodiversity Project* in El Salvador assists coffee farmers in the El Impossible National Park-Los Volcanes protected area corridor obtain certification under the

Rainforest Alliance's Eco-OK label, which includes specific indicators for biodiversity conservation. In one of the SME sub-projects, *FCG,* which supports biodiversity-friendly coffee and regeneration of habitat in Guatemala, certification is being introduced as an alternative to production methods which result in land degradation and biodiversity loss. FCG is an NGO that earns annual investment income off its trust balances and extends loans or grants for small projects, based on the sub-project proceeds. The *Biodiversity Conservation in Cacao Agro-forestry* project in Costa Rica is aimed at promoting greater biodiversity on cacao farms by providing forest-like habitat where little forest remains.

91. Although it is not the only approach that could be taken to promoting biodiversity-friendly production of agro-forestry commodities, certification has a key role to play in the creation of environmental markets. It has the potential to distinguish biodiversity-friendly agro-forestry products through the setting of standards and by creating consumer demand and niche markets for them.

92. The goal of certification in these projects is to provide an incentive for farmers to adopt sustainable production practices and conservation landscapes for the production of agro-forestry commodities, which in turn provide multiple environmental benefits, including biodiversity conservation, reduced land degradation, watershed protection, and increased carbon sequestration. The means is to shift supply and demand from non-certified agro-forestry products to certified products. At present, however, certified agro-forestry products represent very small shares of total production and are limited to niche markets.

Overcoming Barriers to Market Expansion for Certified Agro-Forestry Products

The Cost Barrier

93. An example of overcoming the barrier of high cost of certification is the *Biodiversity Conservation in Cacao Agro-forestry project* in Costa Rica, which provides cacao for end-users of chocolate. The project was conceived by the indigenous Cooperative Asociación de Productores de Talamanca (APPTA), which provides services to indigenous farmers. Individual indigenous farmers cannot afford to pay the costs of being individually certified. Thus, to greatly reduce the cost of certification, APPTA groups the farmer's lots and pays the costs for certification of all the farms together. This includes requiring two independent certifiers (one for European and one for US market certification).

94. The *Coffee and Biodiversity* project did not pay for the cost to farmers of becoming certified, and the cost is three times more per hectare for small coffee farms than for large coffee farms. The project's financial study determined that farms under 7 hectares cannot be profitable under this certification. This suggests that collective certification would be necessary in order to obtain the participation of most of the coffee farmers in the project area.

Lack of Business Expertise

95. Despite having basic commercial competencies, experience in selling cacao, working relationships with the market, and a market development strategy, APPTA is still constrained by

lack of business expertise. This lack of expertise has made it difficult to establish a premium market for certified cacao and to access international market niches that are more profitable.

Low Commodity Prices

96. One of the barriers to broader participation in markets for biodiversity-friendly agro-forestry products is the large fluctuations in commodity prices, with prolonged periods of low prices which reduce or eliminate the possibility of premiums for products in the biodiversity-friendly niche market. GEF has not had a strategy for overcoming this barrier.

97. In response to this barrier, some of the producers are beginning to consider moving into processing of the raw commodity. For example, the APPTA is considering processing cacao into liqueur, which generates much higher value than the raw cacao. To obtain this higher price up the value chain, it is also moving from growing organic bananas for Gerber to producing the baby food "gruel" itself. Overcoming the low commodity price barrier by moving up the value chain will require specialized technical assistance and specific types of credit arrangements to help facilitate the financing of processing/manufacturing equipment.

Lack of Price Premium

98. The original objective of the *Coffee and Biodiversity* project was that 200 farms in the corridor would be certified. Two years after the project ended, however, about one-third of that total had been certified. The process of certification was slow and required some changes of practice. In the meantime, farmers "in the process of certification" were not rushing to adopt new practices and requirements. One of the NGO partners in the project, SalvaNATURA believes the main reason is the number of changes in practice that are needed to be certified. However, the government executing agency, Procafe, feels that the incentive is not strong enough, because no market premium exists. Not a single farmer is able to sell the certified coffee as biodiversity friendly at a premium.

99. Even if a premium may not be obtainable in the short-term, certification may provide other market benefits. Because of current high cacao prices, farmers receive no market premium for organic certified cocoa (although they received up to a 100% premium when prices were lower). Organic certification nevertheless provides farmers market stability, with steady prices and a reliable "floor". Thus, organic certification allows APPTA to sell all the cocoa produced and even to have excess demand. Biodiversity-friendly certified coffee in the *Coffee and Biodiversity Project* in El Salvador that is capturing premiums is being sold under the "Fair Trade" label. To have their coffee certified as Fair Trade coffee buyers must provide credit and technical assistance for transitioning to organic farming as well as for community development, health and education.

Lack of Marketing Expertise

100. The success of certified production is dependent on the ability to sell in differentiated premium markets. This is particularly critical in a commodity market such as coffee that is experiencing a global downturn. Under these circumstances, lack of marketing capacity has been a critical problem of farmers participating in GEF agro-forestry projects. The coffee farms

that have been successful in this regard have been mostly larger farms that are well organized, produce high quality coffee, and have marketing capabilities to connect with purchasers. Many smaller farmers who lacked marketing capabilities were unable to sell their coffee at a premium. In the El Salvador project, the local coffee board was expected to take care of the marketing, but was not an appropriate partner for this purpose. This accounts for the failure of the farmers to find a market for the certified coffee.

Potential Impact on Biodiversity Conservation

101. The varieties of trees on shade-grown coffee farms in the project area can provide corridors between two protected areas. However, the effectiveness of the shade-grown coffee farms in providing such corridors remains unknown. The biological study done for the project area did not provide evidence of how well species populations have been maintained by the coffee farms. It called for more careful study of that question.

Conclusions

102. Certification of biodiversity-friendly agro-forestry commodities has been part of GEF efforts to engage the private sector on behalf of biodiversity conservation. It has the potential to make an important contribution to biodiversity conservation, particularly in countries where deforestation is already extremely serious, and in which agro-forestry represents a key resource for providing habitat to wildlife species.

103. GEF experience with certification of biodiversity-friendly production of agro-forestry commodities suggests that assistance in obtaining certification is a necessary but not sufficient condition for providing a market incentive for farmers to maintain the desired production practices and conservation landscapes. Capacity-building in business expertise and technical assistance for marketing both within and outside the country in which the project or sub-project is being implemented are also necessary to ensure that farmers can obtain a premium for biodiversity-friendly production. GEF needs to clarify its role in this regard.

104. The cost of certification of farms growing agro-forestry commodities puts it out of reach of the small farmer, so project success depends in part on finding a means for subsidizing most of those costs to the small farmer. One such means is building collective certification of an entire area into the design of the project.

105. Potential biodiversity conservation benefits of the certification of agro-forestry commodities include both ecosystem maintenance functions and habitats for species. Although shade-grown coffee farms certainly provide more habitats for birds, mammals and other categories of species, the effectiveness of different kinds of fragmented forest patches in providing the habitats for species has not yet been adequately studied.

B. Eco-tourism

106. If designed with appropriate care, eco-tourism provides opportunities to generate income without subjecting the eco-system in the area of the eco-tourism site to degradation in the long run. Eco-tourism operations can also provide a source of additional revenue (e.g., through

surcharges on tourist hotel occupancy) for dedicated conservation funds that benefit nearby protected areas in addition to providing general economic benefits.

107. *The Lodge at Pico Bonito* in Honduras and six smaller eco-tourism operations in Guatemala — both subprojects in the IFC-GEF SME project portfolio — support eco-tourism operations as a means to support conservation. These two illustrate some of the issues GEF may encounter in supporting small private sector operations in the eco-tourism field.

Dealing with Barriers/Risks to Successful Eco-Tourism Investments

108. The experience with support for eco-tourism ventures in the above-mentioned projects suggests that success in promoting such ventures depends on the ability to overcome major barriers to private sector investment in eco-tourism;.

- Perceptions that the country is not a tourist destination
- Difficulty and affordability of access to the site
- Poor policy environment

109. The prospects for financial sustainability of an eco-tourism operation depend in large part on the ability to market the country itself as a tourist destination. If the country has not been considered as a tourist destination, the costs of changing that perception through marketing are likely to be high. Unfortunately, Honduras and Guatemala must compete with Costa Rica, which is the preferred tourist destination in Central America.

110. Unless government policy provides a supportive environment for biodiversity conservation in the immediate area, an otherwise successful eco-tourism project may be threatened. For example, a major risk to the *Lodge at Pico Bonito* project is the poor policy environment at the Pico Bonito National Park. The park faces a series of major threats, including agricultural land conversion, in-migration of people, illegal logging and poaching (contracts to sell meat). Lack of enforcement of laws against such activities is the most serious problem faced by the park. Furthermore, the government is considering building a paved road through the habitat of the Honduran emerald bird, which cuts through part of the park. This negative policy environment could eventually affect the ability of the Lodge to attract tourists.

Potential Impact on Biodiversity

111. The operations of the Pico Bonito Lodge and other activities associated with it appear to have had a positive impact on its own land in terms of reducing deforestation and poaching. However, the profitability of the lodge is still at stake. The IFC hoped that NGOs associated with the investors in the Lodge would have a positive impact on biodiversity conservation at the park. The presence of local guards hired by an NGO created by the Lodge in certain parts of the park has helped reduce illegal activities somewhat. The Lodge and the Foundation are also seeking to influence the government to legally declare the full park as a protected area as well. Whether this will be enough to overcome problems of lack of enforcement in the park remains to be seen.

112. Although one of the conditions of project approval of the projects was that each individual eco-lodge must provide details regarding the link between their operations and biodiversity preservation, they still lack the tools to demonstrate such a link in the future. When the IFC SME program was approved in the mid-1990s, the GEF did not require a well-defined monitoring and evaluation (M & E) framework for assessing impacts on biodiversity and climate. However, IFC is now working on such an M&E framework for the SME.

C. Payments for Environmental Services

113. Payment for environmental services (PES) is an innovative concept aimed at creating markets for currently unvalued ecological services as well as incentives for biodiversity conservation through contracts between those who benefit most directly from the services and the providers. Under PES schemes, private landowners are paid for environmental services generated by appropriate management of their land. In practice, payments are currently made for: (1) mitigation of GHG emissions; (2) hydrological services, including provision of industrial uses and hydroelectric energy production; (3) biodiversity conservation, and (4) scenic beauty.

114. In the GEF portfolio, PES are being implemented on a limited basis in the *Ecomarkets Costa Rica* project, implemented by the World Bank, and the GEF/IFC SME *FUNDECOR Costa Rica* project. Costa Rica has the most advanced market for PES of any country that is now testing that mechanism for promoting biodiversity conservation and other environmental benefits. It is also being implemented through *Brazil Corrado Private Natural Heritage Reserves* project.

115. Under the *Ecomarkets Costa Rica* project the GEF provided $8 million to the National Forestry Financing Fund (FONAFIFO), of which $5 million was used for direct payments for forest conservation contracts with land owners in designated areas within the Meso-American Biodiversity Corridor and $3 million was used to increase the institutional capacity of FONAFIFO and NGOs assisting farmers to access the Fund.

116. The Government of Costa Rica introduced new economic incentives to counter the tendency of landowners to cut down their forests for timber and agricultural revenues, in order to reduce deforestation and promote reforestation. The Forest Law determined that adopting a market approach and paying forest owners directly for services provided is better than providing subsidies for reforestation.

117. The *FUNDECOR Costa Rica* sub-project includes a program on certified wood futures which effectively shares the risk of production forests and plantation wood production with landowners, in order to provide an additional premium for providing timber from certified sustainably managed forests and plantations. It provides up to a total of $500,000 in loans to fund advance payments under contracts with small landowners against the growth of certified marketable timber. The arrangements for repayment depend on whether the timber purchased is from tree plantations or natural forest. Plantation owners agree to sell to FUNDECOR a specific volume of timber in exchange for fixed annual payments from FUNDECOR. In sustainable forest management contracts, advance payments for tree plantations are repaid when the first harvest occurs. Thus far the sub-project has provided advance purchase payments for wood from 31 established plantations and for first harvests from 32 natural forests.

118. The *FUNDECOR Costa Rica* sub-project also provides technical assistance to selected clients to help them secure environmental services payments under the FESP. Thus landowners may be able to take advantage of both programs. In addition, FUNDECOR pays the costs of certification, which would otherwise be onerous for small landowners.

119. The *Brazil Corrado Private Natural Heritage Reserves*, which was not visited by the review team, involves support for private conservation mechanisms . Instead of making direct payments to the landowners, the project uses fiscal incentives in the form of exemptions from the Rural Property Tax on the part of land that landowners agree to declare as a Private Reserve. The income derived from these mechanisms is insufficient, however, to provide adequate incentive for designating large areas of their land in perpetuity for conservation, so the project also provides investment grants to a number of model reserves to enable testing of innovative business models for eco-tourism, the sale of agro-forestry products, and other income-generating activities.

Likely Impacts on Biodiversity Conservation

Ecomarkets Costa Rica

120. Three conditions will determine the extent to which GEF support for the Costa Rican PES program through the Ecomarkets project will contribute to increased biodiversity conservation: (1) whether government policies create a positive enabling environment for such incentives, (2) whether the economic incentives are sufficient and appropriately targeted, and (3) whether the program is financially sustainable over the long run.

121. The Costa Rican government has provided a strong legal/policy framework for the FESP. The Forest Law No. 7575, which introduced PES, provides a comprehensive legal basis for forest management and compensation payments. The Forest Law establishes that forest may only be harvested if a forestry management plan exists that complies with criteria for sustainable forestry and thus strictly forbids conversion of natural forests. The government also has dedicated specific taxes to the financing of the fund that will pay landowners for these services.

122. To alter landowner behavior and ensure compliance with the law, however, requires payment levels that are adequate to make the forest protection or sustainable management under a government-approved plan more attractive than alternative land uses. The FESP program bundles all environmental services (biodiversity, hydrological services, carbon sequestration and scenic and recreational services) and acts as an intermediary in the market, purchasing them from the landowner and marketing services to clients (primarily users of hydrological services). Since no market exists for species richness, the government provides payments to landowners under contracts for forest conservation, sustainable forest management and reforestation. The largest category of contracts (representing 85 percent of the total area affected by FESP contracts) is Forest Conservation Easements, which provide payments to landowners to allow forests to regenerate.

123. The GEF *Ecomarkets* project supports payments to landowners only within priority areas of the Meso-American Corridor. One-third of the GEF funds are dedicated to priority

biodiversity corridors, including the Tortuguero Biological Corridor, the Barbilla Biological Corridor, the Corcovado-Piedras Blancas Biological Corridor and the Fila Costena Biological Corridor, and another third to primary and mature secondary forests outside the priority biodiversity areas. The purpose of the project is to support a progressive shift away from a scattered approach to contracting to a focus on conservation and consolidation of Costa Rica's sites.

124. In line with this aim, further discrimination among forested lands on the basis of biodiversity value beyond the targeting of priority corridors is desirable. The payments are based on a flat fee per hectare, without distinguishing forests with more biodiversity from forests with less biodiversity. Under these circumstances, the landowners will naturally tend to select forested land on which they cannot generate much income outside the PES scheme. The more the highest biodiversity value can be targeted both by prioritizing contracts in terms of location and adjusting payment schedules according to biodiversity-related criteria, the more valuable the *Ecomarkets* project will be for learning lessons about the direct payments mechanism.

125. A more fundamental question about the *Ecomarkets* project is the relatively short duration of the five-year contracts, which are very appropriate for provision of short-term ecosystem services but less so for biodiversity conservation. Conservation easements are normally contracted for much longer time periods. Although the five-year contract can be renewed, there is no guarantee that some landowners will not cut down their forests when the first contract ends. Twenty-year contracts are also available as an option, but demand is limited in light of the availability of the much shorter alternative. A future shortage of funding for renewal of the contract, of course, would negate the biodiversity conservation objective of the project.

126. The sustainability of the FESP depends, therefore, on the availability of adequate financial resources to renew contracts once the existing five-year contracts expire and GEF funding is no longer available. At the time the project was approved, it was expected that the capacity building supported by the GEF would result in the design and establishment of a trust fund by the end of the fifth year, and that it would be capitalized through fees for hydrological services provided by forest ecosystems and international donor support. Although revenues from payments for water services and scenic beauty should be an important source of long-term support, they should not be counted on to provide continuing support for conservation easements.

127. The Ecomarkets project is an important effort to test the PES mechanism as a means of enhancing biodiversity and which is assumed to provide biodiversity benefits, given the global significance of the priority areas within the MBC and the presumed relatively high quality of the forests being protected. The project poses some questions that will need to be analyzed in order to draw the appropriate lessons from the project, including what level of targeting of payments is necessary to achieve cost-effective biodiversity conservation benefits, and the viability of short-term, renewable conservation easement contracts.

Conclusions

128. Direct payments to landowners, as employed in the PES concept, is an innovative approach that may be particularly important to conserving biodiversity outside protected areas, especially if large areas of forested land in the country are privately owned. Projects that support PES programs involving conservation of biodiversity should provide lessons on using direct payments to increase biodiversity conservation, and are an appropriate use of GEF investments.

129. Biodiversity conservation payments require a longer contract duration than do payments for environmental services. The risk that short-term contracts will not endure in the long run because of changes in market prices appears significant. That risk can be reduced only partially by guaranteeing much longer-term funding for the program.

VI. CROSS-CUTTING ISSUES

A. Host Country Engagement

130. The projects and sub-projects visited for this review were, with one exception, regarded by the host country as consistent with their priorities. Even if the host government has given its explicit approval for a project, it does not ensure that the project is adequately supported by government policies. Renewable energy was not a country priority of Honduras, for example, and the lack of explicit support for the project made it more difficult to create a market for solar PV.

131. In projects such as the PVMTI India sub-project and Soluz Honduras sub-project of the IFC-GEF SME project, the active and supportive engagement by the host country is also an important consideration in allocating project funding to sub-projects. Future GEF projects involving private sector engagement will need to give greater emphasis to this factor.

132. If private sector engagement can influence the host country to provide a more supportive environment, it will increase the chances for success of a project, even if host government priorities or policies are initially at odds with it. In the case of the *Pico Bonito Lodge* in Honduras, although the Honduran government still has not declared appropriate boundaries of the park as protected areas, stakeholder groups and NGOs created as a result of the Lodge at Pico Bonito are lobbying the government to do so. Whether this will result in any actual enforcement of regulations against illegal activities within the park and prevent continuing degradation of the park and surrounding areas, however, remains to be seen.

B. Leveraging

133. The review team conceptualized three levels of leveraging within a project: 1) financing by IAs and public sector entities, 2) financing by FIs in developing countries, 3) proprietary financing by investors. A much higher level of leveraging would be achieved, of course, through replication of the project.

134. The first layer involves the initial funding of a project by the IAs and other similar public sector entities. While this is the first step towards providing seed capital for designing and implementing a project, it is not sustainable. By advancing to the second level of leveraging, which involves raising the comfort level of the FIs as well as their capabilities for providing

credit for environmental businesses, the IAs can contribute to replication of GEF-financed projects. Provision of adequate micro-credit programs is critical for being able to ascend to the next level of leveraging.

135. The third level of leveraging assumes a reduction in FI perceptions of risk in regard to investments in energy efficiency, renewable energy and biodiversity. Creating markets for environmentally friendly businesses and renewable energy requires targeted provision of technical, business, and financial skills and training as well as demonstration of successful business models. The third level of leveraging also depends on a willingness to invest in these businesses by a much larger number of entrepreneurs.

136. Data on the first level of leveraging have been gathered for 69 projects involving an element of private sector engagement. These projects include 23 renewable energy projects, 22 energy efficiency projects and 20 biodiversity projects, one project combining both energy efficiency and renewable energy and three umbrella projects supporting different types of eco-enterprises.

137. The data show that a total of $599 million in GEF investment has generated co-financing of $2.453 billion, for a leveraging factor of 4.09. Energy efficiency projects generated a higher leveraging factor of 4.6, with $181 million in GEF investment bringing $838 million in co-financing. Renewable energy projects were slightly less successful, with $274 million leveraging $1.057 in co-financing, for a 3.86 factor. Biodiversity had a much lower leveraging factor of 1.81, with $103 million generating $187 million in co-financing.

138. Further data will be collected on the secondary and tertiary levels of leveraging in GEF private sector projects.

C. GEF Policy Framework

139. The GEF private sector portfolio evolved from the early days of the pilot phase, without specific policies or guidelines. GEF Council support for this engagement was nascent in the mid-nineties, but fast growing towards the end of the decade. The 1996 Council paper[11] lays down some essential principles, but does not clarify the objective of GEF's engagement, the scope of cooperation in various focal areas and sub-sectors the extent to which GEF's objectives converge with those of the private sector, nor does it provide specific guidelines. The 1999 paper[12] focuses particularly on exploring new modalities of non-grant financing.

140. Both papers are more suggestive than systematic in laying out a strategy and guidelines for how to implement various modalities. A number of unresolved issues are identified for subsequent clarification, but no subsequent paper has yet done so. This includes:

(a) Specification and guidelines for the use of various modalities, including two new modalities proposed in the 1999 paper (bankable feasibility studies, and longer term direct partnerships).

[11] GEF/C.7/12
[12] GEF/C.13/Inf.5

(b) Guidelines for debt forgiveness in case projects succeeds/fails and rules for risk sharing arrangements between GEF partners, as well as rules for handling of re-flows/reuse of GEF funds in cases where contingent funds are approved, but not used.

(c) Development of procedures for project approval and implementation which better operationalize GEF objectives and at the same time fit the requirements of decision making for commercial market actors.

141. With hindsight it might have been advantageous if GEF had recognized the preliminary nature of the policy framework for the private sector engagement, had put in place mechanisms for testing out various approaches and modalities and had taken stock of the experiences and lessons in a systematic way to improve on the policy framework.

D. Implementing Agency Rules and Procedures

142. A widespread perception exists on the part of private sector actors that GEF and Implementing Agency rules and procedures are too cumbersome and time-consuming. Frequent delays in project development and implementation discourage private sector engagement.

143. The majority of delays occur during project preparation stages. They are linked to meeting GEF pipeline eligibility criteria and for obtaining internal IA approval through their processes. The GEF is often blamed for the delays caused by IA rules and procedures for project approval. The lengthy time periods and complexity of procedures often dissuade potential private sector players from partnering with the GEF. From their perspective, working with the GEF is perceived as too difficult and expensive in terms of time and due diligence

144. Moreover, once a project is approved, it may go through a significant delay before implementation begins. This in turn may reduce the likelihood of achieving the desired project impacts as well as potential for duplication, because market conditions may have changed in the meantime. Data collected for the 2003 PIR show that average elapsed time for both private and public sector projects between GEF Council and IA approvals has improved but is still considerable. For the World Bank, average elapsed time for all full-size projects, including both private and public sector projects, was reduced in 2002 to an average of 409 days, compared with 640 days in 2001. For all medium-sized projects, however, the time was reduced to 106 days in 2001, compared with 120 days in 2002. Elapsed time for all UNDP projects from Council approval to implementation was 362 days for full-sized projects in 2002, up from 333 days in 2001.

145. Delays in beginning implementation not only affect project impacts, but may also raise audit and project costs, requiring budget reallocation or causing budget overruns.

146. For smaller sub-projects (e.g., UNEP Redirecting Commercial Investment project and IFC/GEF SME Program), GEF has approved an overall programmatic approach without approving each sub-project. Similarly it has used a focal point no-objection procedure under which the operational focal point is informed about a sub-project about to be financed in a country and must respond by a certain date if the government has objections. This streamlined

approval procedure applies to IFC umbrella projects, which constitute the majority of IFC GEF projects.

E. GEF Secretariat Role and Capabilities for Private Sector Work

147. Although the GEF has now been engaged with the private sector for 10 years, the Secretariat has not developed adequately its capabilities for providing policy guidance, making programmatic decisions, reviewing project proposals, and monitoring and evaluating projects involving private sector engagement, and engaging the private sector in relevant dialogues.

148. Until recently the Secretariat had no staff expertise in analysis of relevant risks and in business financing structures and instruments. In general, moreover, insufficient staff time and attention has been devoted to issues surrounding private sector engagement through projects and otherwise.

F. Implementing Agency Roles and Skills

149. In selecting types of projects involving private sector cooperation, the IAs have generally remained close to their respective strengths. IFC, with its specific mandate to work directly with the private sector, implemented 50% of the projects involving high financial risk. UNDP has many activities with grants, livelihoods and public sector energy efficiency, and the World Bank worked on larger projects as well as on biodiversity with private sector involvement. (Of 37 World Bank GEF projects with private involvement, 46% are biodiversity projects.)

150. However, the GEF portfolio includes some projects in which the type of private sector engagement has not been appropriately matched with the comparative advantage and capacities of the IA in question. Over the years, the demarcation between these roles has become increasingly blurred. UNEP's comparative advantage is in knowledge-sharing and management. It is best positioned to provide grants rather for projects involving public sector activities that involve partnerships with the private sector. Similarly, UNDP's comparative advantage is with non-financial policy mechanisms, such as efforts at certification, standard setting. However, both have had projects involving contingent financing mechanisms. Both UNEP and UNDP have implemented projects based on contingent financing, but have now recognized that such projects do not reflect their comparative advantage.[13]

151. The IFC is the most private sector-oriented IA, and the majority of private sector projects are implemented through the IFC. One of the reasons that IFC was viewed as an appropriate partner for private sector projects was its experience and staff skill set in investment, finance and business. The IFC also has a comparative advantage in the provision of micro-credit, based on its institutional experience and expertise.

152. The experiences of IFC/GEF project implementation have also revealed a tension between the objectives and operational norms of the IFC and those of the GEF. The IFC objective is to invest in projects that are near commercial and will therefore yield commercially

[13] UNDP is in the process of developing a partnership with the UN Capital Development Fund (UNCDF) and its Special Unit for Microfinance (SUM) to further strengthen UNDP's capacity in this area.

competitive internal rates of rates of return on investment in the near to medium term. However, most GEF projects contain higher risks, are less commercially viable, and may involve longer maturities than what is acceptable for internal IFC investment criteria. Some GEF projects are not likely to meet IFC requirements for internal rates or return.

153. GEF as a whole may have missed opportunities for joint learning from experiences with new financial mechanisms and risk mitigation. While projects have addressed different markets in different countries, in a number of instances the approaches or tools used were similar (e.g., using small-scale credit systems for environmental SMEs, risk guarantees and assessments, and working with financial intermediaries). Nevertheless, no joint process for learning from experiences with these approaches and instruments has taken place.

G. Monitoring and Evaluation

154. Most projects in the portfolio, and particularly the older projects, are lacking quality frameworks for measuring either market or environmental impacts. Most of the M&E frameworks that do exist in private sector projects do not explicitly measure environmental impacts. The 2002 PIR report noted a broader pattern of weaknesses in M & E systems, which included missing or inadequate baseline data, the absence of indicators, and a tendency to focus on inputs and outputs rather than on progress toward the objectives of the project. In biodiversity projects, few attempts have been made to document the baseline status of biodiversity in regard to either species or eco-system functions, so there is no possibility of measuring the impact of the project at the end of implementation. Similarly, in a number of renewable energy projects, M & E components have not yet been put in place to measure reductions in GHG emissions achieved by the GEF project in relation to the baseline scenario.

155. Private sector projects often have financial performance criteria as the triggers for the disbursement of concessional financing. Specifically, "risk compensation" is provided in IFC/GEF SME program for early repayment of loans or successful completion. This program is in the process of designing a framework which combines financial and environmental performance "contingency triggers". Such an approach could be a means to increasing the incentive for achieving environmental objectives in private sector projects.

H. Conclusions

156. Explicit host country approval of and support for GEF private sector projects and sub-projects is a key to project success. When the host country government has pursued policies that reflect less than enthusiastic support for the project objective, it is likely to pose serious obstacles to meeting that objective. However, the GEF principle of country-drivenness need to be broadened to include civil society as a whole and with private sector as an element of that.

157. Although improvements have been made in time elapsed between submission of project documents and between GEF approval and implementation, the frequent delays are a significant source of discouragement of private sector participation in projects.

158. GEF policy on private sector work, as outlined in two GEF Council-approved papers in 1996 and 1999, remains very general and unsystematic. The IAs still lack concrete policy

guidelines on a wide range of operational issues, a number of which have been highlighted in this review. Private sector projects present special problems for monitoring and evaluation requirements. Private sector projects have often been slow to establish monitoring and evaluation systems

ANNEX 1

REVIEW OF GEF ENGAGEMENT WITH THE PRIVATE SECTOR

TERMS OF REFERENCE

Background

1. Since GEF's inception as a pilot facility in 1991, it has engaged with the private sector as a key actor to achieve global environmental benefits. During the pilot phase, implementing agencies and project executing agencies gained experience with a variety of approaches to private sector participation in the GEF. The importance of engaging the private sector in a substantial way was reaffirmed during the process of restructuring the GEF. The *Instrument for the Establishment of the Restructured GEF* (the Instrument) lists the private sector among the various partners that the GEF is expected to engage.[14] The Council reviewed document GEF/C.7/12, *GEF Strategy for Engaging the Private Sector,* at its April 1996 meeting and agreed that the paper should be revised to reflect a more strategic approach.[15]

2. The First Overall Performance Study (OPS1) of the GEF, completed in 1998, noted that the private sector has had little opportunity to directly execute GEF projects, and that their role has been mostly limited to providing procured equipment and services or, in some cases, to acting in an advisory capacity. It concluded that: (i) the GEF has been able to mobilize a small but growing level of financing for projects, but comparatively little by mainstream private financial institutions; (ii) GEF assistance can be provided to address commercial risks without subsidizing private profits through measures such as low interest loans, contingent payment features and partial guarantees; (iii) GEF is urged to engage private financiers to mobilize additional resources from banks, insurance companies, and pension funds.

3. At the October 1998 meeting, the Council requested that the "Secretariat prepare a paper for Council review on the private sector and the GEF. The paper should address modalities to facilitate private sector involvement in GEF-financed activities, including partnerships with the private sector to promote the transfer of technology." The Council discussed document GEF/C.13/Inf.5, *Engaging the Private Sector in GEF Activities*, at its May 1999 meeting. The

[14] Para 28 of the Instrument: ".. The implementing agencies may make arrangements for GEF project preparation and execution by multilateral development banks, specialized agencies and programs of the United Nations, other international institutions, bilateral development agencies, national institutions, non-governmental organizations, private sector entities, and academic institutions, taking into account their comparative advantages in efficient and cost-effective project execution."

[15] The Council recommended that "issues related to the involvement of the private sector together with financing modalities should be addressed in the revised paper", and a revised paper submitted for Council consideration.

Council welcomed the document and " requested the Secretariat and the Implementing Agencies to proceed in preparing projects that incorporate approaches described in the document."[16] The Council also requested the Secretariat to keep the Council informed of progress made in collaborating with the private sector.

4. The Second Overall Performance Study (OPS2) of the GEF, assessed private sector involvement in GEF activities, and concluded, "the GEF needs to engage the private sector more extensively." The report suggested that, "Council endorsement of expanded participation of the private sector and explicit acceptance of the risks involved would help remove uncertainties within the GEF. Clear guidelines from the GEF Secretariat on new modalities should have high priority, as should the acquisition of substantially increased and global environment-related private sector expertise for the GEF Secretariat."[17]

5. The GEF has engaged the private sector by (i) directly executing projects through, or in partnership with, private sector actors; and (ii) developing partnerships outside the portfolio of projects.

6. In addition, the GEF portfolio has a large number of projects executed through public sector agencies that (i) aim to develop capacity, markets and other enabling conditions for the private sector; or (ii) has a significant, but unintended impact, positive or negative, on markets and the private sector.

Objective of Review

7. The overall objective of the proposed review is to assess the results of engagement between the GEF and the private sector since the inception of the GEF. For the purposes of this review, "private sector enterprises" are defined as those that are privately incorporated or publicly traded entities. The primary focus of the review will be on "private sector projects" referred to in para. 5; the impact of public sector projects, referred in para. 6, will be reviewed within a couple of thematic areas in the portfolio – energy efficiency projects[18] in the climate change focal area, and ecotourism in the biodiversity focal area.

8. Specific objectives of the review are to:

(a) Identify the instruments employed by the GEF and its implementing agencies in engaging the private sector;

(b) Assess the results and impacts of projects on the private sector;

(c) Document lessons learned; and

(d) Recommend future directions.

[16] Joint Summary of the Chairs, GEF Council Meeting, May 1999.
[17] Second Overall Performance Study, pp.108
[18] Including ESCOs.

Scope of Review

9. Specific activities to be conducted with reference to the portfolio of projects referred to in paras 5 (i), 6 (i) and 6(ii):

Portfolio Overview

(a) Identify those projects, both full-sized and medium-sized, with significant private sector engagement;[19]

(b) Identify the types of private sector actors involved – large multinational firms, national firms, small and medium enterprises, cooperatives, industry associations, types of partnerships between different private sector actors;

(c) For the selected set of projects identify the risk or barrier to be tackled and the different modalities or instruments employed. Inter-alia, this may include private equity, venture capital, credit instruments, guarantees, contingent finance, grants, training, promotion, information, technology transfer and capacity building. Describe the evolution, if any, in the types of risks or barriers addressed and the choice of these instruments in the portfolio; [20] assess whether there was a framework within which projects and types of projects were developed by the GEF and the implementing/executing agencies.

(d) Document the financing structure of the projects, identifying GEF and non-GEF resources committed to project design. Compute the leverage ratio – non-GEF resources/GEF resources – for the projects at key stages of the entire project cycle; Identify the global environmental benefits proposed to be delivered by projects.

(e) Prepare a summary of portfolio overview by implementing/executing agency, type of private sector actor, geographical region, focal area, etc;

Project Design and Implementation

(f) Identify and assess the roles played by the countries, government agencies, the private sector proponents, the implementing agencies/executing agencies, and the GEF Secretariat in developing the projects.

(g) Assess whether projects are designed to meet the priorities of the participating countries.

(h) Assess whether the projects are designed and implemented to help develop sustainable local businesses or markets.

[19] Projects in which the private sector is involved only in procurement of goods and/or consulting services will be not be included in this review.
[20] Identify if there are any specific tendencies in instruments employed among the different GEF focal areas.

(i) Identify the sources, and assess the quality of technical assistance available to design and implement the projects.

(j) Assess the roles, level, and mode of participation of different stakeholders (governments, NGOs, private sector, academic/research institutions, etc) in project design and implementation.

(k) Assess the reporting and management procedures, including monitoring and evaluation systems, during implementation of projects.

Results and Impacts

(l) Assess the results and impacts of projects, both positive and negative, if any, taking into account the conditions of the market, institutional actors, perceived risk by investors, and the status of the project in the implementation cycle, and employing the following parameters:

(i) Achievement of outputs and objectives, with particular focus on achievement of global environmental benefits and their relationship to incremental costs financed by the GEF.

(ii) Sustainability of benefits – removal of barriers to commercial investment; other steps undertaken to ensure continuation of project benefits;

(iii) Replication – impacts on the larger market by the project(s); indications of other private sector actors/resources entering the market without GEF assistance.

(iv) Leverage – the actual leveraging (non-GEF resources/GEF resources) at completion of project implementation.

(v) Transfer of technology along with supporting skills and training to adapt technology to local needs and circumstances.

(vi) Capacity building for managing funds and/or other related activities in the private sector (in the participating countries) for environmental management.

(vii) Type of the firm(s) engaged in the project – national and international small, medium, and large.

(viii) Relationships[21] and division of benefits[22] between local and international private sector partners.

(m) Assess the appropriateness and effectiveness of the financing/investment instruments employed in terms of their:

[21] For example, as buyers, suppliers, creation of future business opportunities, etc.
[22] including earnings, capacity building, employment generation.

(i) Ability to employ GEF resources strategically in dealing with incremental costs and/or incremental risks.

(ii) Ability to mitigate specific classes of risks or barriers;

(iii) Safeguards to prevent moral hazard and/or adverse selection; management incentives; risk coverage vs incentive for success;

(iv) Role in attainment of results in terms of l(i), (ii), (iii), (iv), (v), (vi), (vii), and(viii).

(n) Evaluate the appropriateness of the project partners involved in terms of their:

(i) Size and stability of commitment of own or other resources to the project(s);

(ii) Role and reputation in the domestic market environment and ability to influence it;

(o) Assess the appropriateness of the implementing/executing agency involved in terms of:

(i) Comparative advantage – institutional structure and culture to engage the private sector; skills in technology transfer/provision; knowledge of markets, expertise in developing country and economies in transition finance, technologies and business; and

(ii) Staff skills, incentives, and training.

Outside the portfolio of projects, referred to in para 5 (ii), the review will:

(p) Identify GEF activities, including inter-alia, country dialogue workshops, that have been targeted towards enhancing private sector participation in the GEF.

(q) Assess the effectiveness of these activities; (i) on the portfolio, in terms of projects proposed for GEF support; (ii) other discernable impacts in terms of encouraging private sector activity geared towards obtaining global environmental benefits.

Best Practices

(r) Describe remedial actions taken by implementing agencies/executing agencies to early problems identified with the design and implementation of projects and non-project activities.

(s) Identify the best practices and lessons learned in the design and implementation of project and non-project activities involving the private sector.

Recommendations.

(t) Recommend broadly what improvements are required in the approach, both project and non-project, undertaken by the GEF in engaging the private sector.

Methodology

10. The review will be carried out in two phases, commencing with a desk review and consultation with the implementing and executing agencies to identify the major issues emerging from the portfolio, followed by visits to selected projects to assess the issues in depth. The criteria for selecting projects for field visits are expected to emerge from the desk review, and will be discussed and agreed by the team. The proposed methodology for the study will cover the following broad areas:

(a) Review of relevant documentation at the GEF Secretariat, United Nations Development Programme, United Nations Environment Programme, the World Bank/International Finance Corporation, and the relevant Executing Agencies under Expanded Opportunities;

(b) Visits to the Implementing Agencies and Executing Agencies and discussions with GEF regional coordinators and task managers of enabling activities.

(c) Consultations with relevant stakeholders such as private sector project proponents, business associations, relevant bilateral and multilateral agencies, international, regional and local NGOs, including academic institutions. Consultations with relevant private sector associations – national and international – who are not directly associated with the project.

(d) Preparation of project case studies on selected projects by local consultants.

(e) Visits to projects and project management units by study team members.

Study team

11. A team comprised of members from the implementing agencies, the GEF Secretariat, the GEF Monitoring and Evaluation Unit, an international consultant, and local in-country consultants will carry out the study. The members of the study team are as follows:

- Ramesh Ramankutty, GEF Monitoring and Evaluation team, task manager
- Saima Qadir, Private Sector specialist, GEF Secretariat
- Bernard Jamet, Technical Expert (international consultant)
- Daniel Young, researcher (consultant)

- Dana Younger/Sam Wedderburn, World Bank/IFC
- Andrew Bovarnick/Geordie Colville, UNDP
- Tom Hamlin/Mark Radka, UNEP.
- Local consultants (to be identified depending on projects for case studies and field visits.[♣]

12. The team will participate in all stages of the review, including developing detailed plan and methodology for the review and participate in initial synthesis discussions on finding and conclusions following project visits. Local consultants will participate in the team visits to projects and preparation of selected project case studies.

13. The task manager (with inputs from the team) will prepare an Inception Report 1 to launch the desk review, which will contain an overview of the data sources. Following the desk review, the task manager (with team inputs) will prepare Inception Report II with plans on how to address the various issues, outlines of questionnaires or structured interview guides, a list of projects proposed for case studies and visits, as well as a schedule for the execution of the review.

Output

14. The task manager will be responsible for preparing the first draft of the report, based on project visit reports and on inputs provided by the team members.[23] Based on feedback received, a second draft will be prepared for management review at the GEF Secretariat and the Implementing Agencies. Following management review, a third draft will be prepared and forwarded to project managers/countries covered under visits and case studies for their comments. Based on feedback, the final report will be prepared for submission to the GEF Council. The final report will consist of 30-50 pages plus appendices, including, inter-alia, a list of all interviewees and data sources.

[♣] Consultants should have transactional private sector experience and/or knowledge.
[23] Team members will be requested to provide specific inputs.

ANNEX 2

Table 1. Statistical Basis for Review of GEF Engagement with the Private Sector: Projects visited under the Review

No	Country	*Project*	Implementing Agency
1	Bangladesh	Grameen Shakti (SME sub-project)	IFC
2	China	Efficient Boilers	World Bank
3	China	Efficient Lighting	UNDP
4	China	Efficient Refrigerators	UNDP
5	China	Energy Conservation	World Bank
6	China	Town and Village Enterprises Energy Efficiency	UNDP
7	Costa Rica	Cacao Agro Forestry	World Bank
8	Costa Rica	Ecomarkets	World Bank
9	Costa Rica	FUNDECOR (SME Project)	IFC
10	Costa Rica	Tejona Wind Power	World Bank
11	Czech Republic	Efficient Lighting Initiative	IFC
12	El Salvador	Shade Coffee	World Bank
13	Global	Solar Development Group	IFC
14	Guatemala	FCG (SME Project	IFC
15	Honduras	Soluz (SME Project)	IFC
16	Honduras	Wilderness Gate (SME Project)	IFC
17	Hungary	Efficient Lighting Initiative	IFC
18	Hungary	Energy Efficiency Co-financing Program	IFC
19	Hungary	Public Sector Energy Efficiency Program	UNDP
20	India	Energy Efficiency Project	World Bank
21	India	Photovoltaic Market Transformation Initiative	IFC
22	Kenya	Photovoltaic Market Transformation Initiative	IFC
23	Kenya	Small and Medium Enterprises	UNDP
24	Poland	Caresbac (SME sub-project)	IFC
25	Uganda	Kibale Forest Wild Coffee	World Bank
26	Uganda	PV Project	UNDP

Table 2. Statistical Basis for Review of GEF Engagement with the Private Sector: Projects under Desk Review

No	Country	Project Title	Implementing Agency
1	Argentina	Renewable Energy in Rural Markets	World Bank
2	Bangladesh	Rural Electrification and RE Development	IFC
3	Bhutan	Integrated Management of Jigme Dorji National Park	UNDP
4	Brazil	Biomass Power Generation: Sugarcane Bagasse & Trash	UNDP
5	Brazil	Fuel Cell Busses for Urban Transport	UNDP
6	Brazil	Establishment of Private Natural Heritage Reserves in the Brazilian Cerrado	UNDP
7	Brazil	Brazilian Biodiversity Fund	World Bank
8	Brazil	Energy Efficiency Project	World Bank
9	Brazil	Biomass Power Commercialization Demonstration	World Bank
10	Bulgaria	Energy Efficiency Strategy to Mitigate Greenhouse Gas Emissions	UNDP
11	Cambodia	Promotion of Renewable Energy Businesses to Enhance Access to Energy Services in Rural Areas	World Bank
12	Caribbean	Renewable Energy Development Program	UNDP
13	Chile	Removal of Barriers to Rural Electrification with Renewable Energy	UNDP
14	Chile	Conservation and Sustainable Use of Chiloe Globally Significant Biodiversity	UNDP
15	Colombia	Conservation and Sustainable Use of Biodiversity in the Andean Region	World Bank
16	Costa Rica	Ecomarkets	World Bank
17	Costa Rica	Biodiversity Resources Development (INBIO Bio-prospecting)	World Bank
18	Croatia	Removing Barriers to Improving Energy Efficiency of the Residential and Service Sectors	UNDP
19	Croatia	Karst Ecosystem Conservation Project	World Bank
20	Ecuador	Power and Communications Sectors Modernization and Rural Services	World Bank
21	Egypt	Fuel Cell Bus Demonstration	UNDP
22	Georgia	Protected Areas Development	World Bank
23	Global	Renewable Energy and Energy Efficiency Fund	IFC
24	India	Solar Thermal Power	World Bank
25	Indonesia	Maluku Conservation and Natural Resources Management	World Bank
26	Indonesia	Komodo National Park Collaborative Management Initiative	IFC
27	Lebanon	Barrier Removal for Cross-sectoral Energy Efficiency	UNDP
28	Lithuania	Vilnius District Heating	World Bank
29	Malaysia	Industrial Energy Efficiency Improvement Project	UNDP
30	Mauritius	Sugar Energy Bio-Energy Technology	World Bank
31	Mexico	El Triunfo Biosphere Reserve: Habitat Enhancement in Productive Landscapes	World Bank
32	Mexico	Private Land Conservation Mechanisms	World Bank
33	Mexico	Indigenous & Community Biodiversity Conservation	World Bank
34	Morocco	Solar Based Thermal Power Plant	World Bank
35	Philippines	Palawan New and Renewable Energy and Livelihood Support	UNDP
36	Philippines	Conservation of the Tubbahata Reffes National Marine Park and World Heritage Site	UNDP
37	Philippines	CEPALCO Distributed Generation PV Power Plant	World Bank

No	Country	Project Title	Implementing Agency
38	Philippines	Asia Conservation Foundation	IFC
39	Poland	Efficient Lighting	IFC
40	Regional	Commercializing Energy Efficiency Finance (CEEF)	IFC
41	Regional	EcoEnterprises Fund	IFC
42	Regional	Terra Capital Biodiversity Enterprise Fund	IFC
43	Romania	Energy Efficiency Project	World Bank
44	Slovak Republic	Chemosvit Cogeneration	World Bank
45	Sri Lanka	Energy Services Delivery	World Bank
46	Sri Lanka	Renewable Energy for Rural Economic Development	World Bank
47	Syria	Supply Side Efficiency and Energy Conservation and Planning	World Bank
48	Thailand	Removal of Barriers to Biomass Power Generation and Cogeneration	UNDP
49	Thailand	Building Chiller Replacement Program	World Bank
50	Tunisia	Barrier Removal to Encourage and Secure Market Transformation and Labeling of Refrigerators	UNDP
51	Venezuala	Conservation of Biodiversity in the Orinoco Delta Biosphere Reserve	UNDP