



# Global Environment Facility

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October 21, 2004

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GEF Council  
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Agenda Item 7

## REPORTING ON PERFORMANCE TARGETS TO BE ACHIEVED BY FALL 2004

**(Prepared by Office of Monitoring and Evaluation)**



# Global Environment Facility

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Robert D. van den Berg  
Director of Monitoring and Evaluation

October 21, 2004

Mr. Leonard Good  
CEO and Chairman  
Global Environment Facility

Dear Len:

In making its contribution to the third replenishment of the GEF Trust Fund, the United States made a contingent pledge of \$70 million. As noted in footnote f to Attachment 1 of the Replenishment Agreement, the pledge is contingent on achievement of performance measures listed in Attachment 1 of the replenishment agreement. These performance measures (for projects approved from July 2002 until June 2004 – i.e. the first half of GEF3) were to be presented to the Council with a verification by the GEF Independent Office of Monitoring and Evaluation.

Verification of performance measures can take place at four levels:

- Verification of the appropriateness of indicators and their adherence to the SMART principle (indicators should be Specific, Measurable, Attainable, Relevant and Traceable);
- Verification of the methodology used to assess the data, including the soundness of its assumptions and definitions;
- Verification of the application of the methodology, including the reliability of the data and validity of calculations and analysis;
- Verification of the actual achievement of the targets in the field. This step may only be undertaken in future through portfolio, final or mid-term evaluations, based on the established baselines and targets.

The delays in data clarification and submission, within climate change in particular, have not allowed for in-depth review of all projects concerned. The verification that the Office of M&E has done, leads to conclusions on the appropriateness of the targets (a), the methodology used to assess the data (b) and the application of the methodology (c). The verification of the actual achievements has not taken place and will be reported on at a later date once the projects are under implementation or completed. Below the verification per focal area is given and discussed.

## **Persistent Organic Pollutants (POPs)**

The replenishment target for the POPs focal area is straightforward and process-oriented. The Office of M&E considers that the target is fully met. Projects have been approved for more than 50 countries to receive assistance in preparing national implementation plans for POPs reduction.

## **Biodiversity**

In the case of the biodiversity performance measures the GEF Secretariat and the Implementing Agencies have well exceeding both proposed targets: 17 million hectares of land under improved management for conservation or protection and 7 million hectares of “productive” landscapes supporting habitats and ecosystems. The numbers provided in Annex 2 of GEF/C.24/3 (“Report on Meeting the Biodiversity Performance Measures by Fall 2004”) are hereby verified by this office: 46 million hectares for the first target and 38 million hectares for the second one.

The methodology selected for collecting information for the targets is straightforward and well explained in the document: for the first target, all projects supporting management activities for existing or new protected areas were considered eligible and for the second target, all projects supporting conservation activities within production landscapes and seascapes were considered eligible. As the annex explains, the data are reported (and valid) only at the project approval stage using as the main source of information approved project documents. It is well recognized that during project implementation these coverage numbers change.

## **Climate Change**

For the climate change focal area, the interim benchmark concerns the approval of projects projected to avoid or sequester at least 200 million metric tons of greenhouse gas (carbon dioxide equivalent) emissions. This is considered a relevant and reasonable long-term performance measure for the climate change portfolio. To give justice to the full range of intended results of the focal area, this indicator must be complemented with other qualitative, quantitative and proxy indicators regarding the transformation and development of energy efficiency and renewable energy markets.

However, the indicator of “metric ton of CO<sub>2</sub> emissions saved or avoided” may be applied to several levels of results: at the output, outcome or impact level, depending on project circumstance and goals. The methodology developed captures this by differentiating between direct (output) and indirect emissions (outcome or impact) avoided.

Overall, the Office of M&E finds that the reported figures are credible and within the established target. The estimates of direct emissions of around 181 million metric tons are the most precise. However, the indirect GHG avoidance data of 409 million metric tons of lower replication is also considered feasible. There is reason for caution on the expectations of the upper range of indirect emissions (of 1.86 billion tons).

These targets are based on a detailed and judicious analysis by the GEF Secretariat, which has led to the development of a methodology that reflects the GEF-specific mandate and circumstances. Specifically, the methodology has been consistently applied between projects and covers all the areas of necessary variables that GEF projects face. Reporting separately on direct and indirect emissions avoidance allows for better appreciation of credible linkage between GEF contribution at different levels of results and overall and longer-term results. It is also appreciated that the intended results are presented as a low and high range. The assumed timeframes of the different technologies are reasonable.

No agreed 'right' scientific approach of GHG emissions calculations exists for the type of indirect effects promoted by the GEF. Thus, there are naturally possible areas of methodological improvement. The Annex A to this letter addresses specific concerns regarding GHG calculation methodology as well as findings from a sample review by Office of M&E of project data calculations and the application of the GHG methodology to the 46 climate change projects covered in the target estimate.

The quality of GHG targets, estimates, calculations, monitoring and reporting to date are discussed in further detail in the 2004 Office of M&E Climate Change Program Study (CCPS). The Climate Change Task Force intend to publish guidelines on GHG methodology, for which the Replenishment target assessment has provided more impetus and experience.

### **International Waters**

The target set for the International Waters (IW) focal area targets has been met. This target calls for projects to be approved "to establish management frameworks (focused on environmental priorities) in riparian countries in no fewer than 2 new transboundary water-bodies". The Secretariat and the Implementing Agencies are congratulated for having exceeded the target by approving six projects that seek to establish such management frameworks. The three criteria used in the report to identify projects that qualify to meet the target are also clear and appropriate, and will be useful in the verification of the accomplishment of these objectives at the end of the projects. Nonetheless there is a need to further define IW indicators to make them more measurable and for projects to establish the appropriate baselines early on in the project. Some of the projects presented might have set targets that are not attainable give the project timeframe and budget.

### **Ozone Layer Depletion**

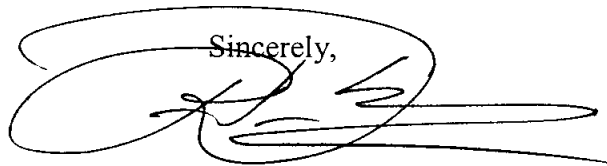
The target must be considered as fully met, as the approved Eastern Europe regional project on methyl bromide phase out of 167 metric tones largely surpasses the target of "no fewer than 50 Mt". Furthermore, the Armenia project will eliminate the use of 56.23 mt of ozone depleting substances annually, although this mostly concerns CFCs and aerosols. It must be noted that the ozone performance target lacked in precision, as it did not specify if there were different expected weights of methyl bromide and Hydrochlorofluorocarbons (HCFCs) within the target.

## Land Degradation

The set target for land degradation specifies that “Projects will be approved to protect no less than 3 million additional hectares of land area from degradation.” The land degradation team reported that the projects approved in the third replenishment plan to improve a total of 17 million hectares of degraded lands. These include 12 projects approved under the Land Degradation Focal Area, and 7 projects approved under biodiversity. Biodiversity projects were selected by applying the following criteria: (1) projects explicitly address specific land degradation treats; (2) projects includes specific activities that address the identified treats to land degradation; and (3) projects clearly quantifies the number of degraded hectares that the project plans to benefit. The Office of M&E considers that indicators used for each criteria, which are outlined in the report presented by the Land Degradation Focal Area team, are appropriate.

The Office of M&E was not able to verify the reliability of the methods used by projects to calculate the number of hectares presented in project documents. The Office recommends to the Land Degradation Focal Area Team that it develops some guidelines that can assist projects to calculate land to be improved and to insure consistency in the rigor and reliability of these calculations.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. van den Berg', enclosed within a large, loopy oval flourish.

Robert D. van den Berg  
Director of Monitoring and Evaluation  
Global Environment Facility

## **Annex A: Observations on Methodology and Data in the Climate Change Focal Area**

1. The Office of Monitoring and Evaluation finds that the estimates and assumptions made on the climate change performance measures are reasonable, albeit with varying degrees. The following discusses the key methodological issues that require more effort to develop qualitative empirical evidence in future.

2. **The baseline of the climate-unfriendly technology replaced is often unclear.** This is the main remaining uncertainty regarding direct emissions. The methodology correctly assumes that calculations should be based on the *marginal* technology. It can be debated how to reflect replacement of currently used technologies versus replacement of *future* climate unfriendly technologies. Some projects apply the present average emission factors, which of course is data that is relatively easily and comparable. The Office of M&E does not consider that the extent of difference in the two emission factors would significantly affect the majority of project target calculations. The GEF Secretariat has applied a nuanced assessment in case of large markets (such as global fuel-cell bus project) where marginal technologies might make a difference.

3. The factor of **direct post-project reduction** for “re-investments” of credit lines and guarantees is conceptually clear. As the GEF portfolio is not sufficiently advanced to have gathered experience in payback periods or rate of reinvestment, the average ‘turn-over’ or loan default rates are uncertain although some project provide ex-ante estimates of funds’ leakage rates. For most of the seven projects with such effects, the assessment has applied a turn-over rate of two, which can be considered realistic. More efforts in monitoring of credit facilities should be able to reduce these uncertainties in future. Alternatively, a simpler approach could consider these effects as part of the indirect result of replication, after project end, of the initial project investments.

4. The “**bottom-up**” **approach** is based on the project direct achievements, and assesses the indirect effects occasioned by replication of energy efficiency or renewable energy initiatives in the market. Although replication factors in the portfolio have never been quantified, there is sufficient experience to make qualified estimates. The replication assumptions range from 0.7 to 10 depending on the type of project. A higher rate of replication is expected to take place in specific circumstances or markets, such as in Russia, or globally for fuel-cell buses. The great majority (17 projects) have assumed a more limited replication factor (RF) of 3. The mixed experience in rural electrification is reflected in a relatively cautious RF of 2. The Office of M&E finds that replication factors have been applied judiciously and consistently across clusters and they are anchored in project design. Encouragingly, a recent post-project evaluation of a project provided evidence of such sustained replication in the market beyond project end.<sup>1</sup> Nevertheless, monitoring and evaluation, especially ex-post, should provide more reliable data on this performance factor in future.

5. The largest degree of uncertainty is associated with the “**top-down**” approach. It is intuitively appropriate for market transformation although it raises two conceptual concerns. Firstly, this approach depends on correct targeting and assumptions regarding (a) the technical potential and (b) the somewhat lower economic market potential of the technology that the project promotes. The assumptions regarding ‘the total market potential’ in a country varies from, say, assessing the wind energy potential in Russia to the energy savings potential of 75 industrial parks in Morocco. The assessment of the economic potential is made by the project depending on local circumstances, with equalizing adjustments by the GEF Secretariat in some cases. The assessment must also take account of the fact that projects often target a specific geographic market, sub-market, or target group within a market, not necessarily at the national scope. It is not possible to verify the underlying assumptions without local knowledge or observation; through it is noted that each project does contain details on how these figures are reached.

6. Secondly, the concept of ‘causality factor’ (CF) is inherently subjective and difficult to apply consistently. For the top-down approach, the causality factors range from 20% to 100%. The latter – full attribution to the GEF - is applied to nine projects where the market is virtually non-existent and so GEF support can be expected to make the main difference; or where there is more than one GEF project (Nicaragua, Mexico), or where GEF is the dominant player (Egypt solar thermal). In its analysis of the variation between the low and high range of estimates, the Office of M&E could not determine any clear correlation. In four cases, the top-down approach was not applied, in which case the estimated lower and upper range are the same. The largest differentiation was a upper replication of 88 times the lower estimate.

7. Ultimately, the notion of quantifying attribution in percentages has not been attempted in any other development situation, and empirical evidence is not likely to become available to assess these assumptions or measure achievements. To measure long-term impact, a more useful approach may be to realistically establish expected increases in market shares, without attribution of impact to the GEF.

8. Finally, the Office of M&E has considered the weight of **individual projects** and the challenge of averaging out indicators and data across projects. The fact that one project can dominate the aggregate target is consistent with the findings of the Climate Change Program Study. For the two major China projects in energy efficiency, the intended direct emissions are considerable, with a conservative replication of two. The causality factor is estimated to be 20%, but even this limited share of the China market is enormous in scope. The assumptions are therefore found to be acceptable.

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<sup>i</sup> Impact Assessment: Poland Efficient Lighting project (PELP): Final Report, September 2004.