

GEF EO Terminal Evaluation Review – Project ID 514

1. PROJECT DATA				
GEF Project ID: 514		Review date: 1/25/2010		
IA/EA Project ID:		GEF financing:	0.72	0.69
Project Name:	The role of the coastal ocean in the disturbed and undisturbed nutrient and carbon cycles.	IA/EA own:	0.19	0.20
Country:	Global (All GEF Development Regions)	Government:		
		Other*:	0.26	0.26
GEF Focal Area	International waters with relevance to climate change	Total Cofinancing	0.46	0.46
Operational Program:	OP 10 (Global Contaminants Component)	Total Project Cost:	1.17	1.15
IA	UNEP	<u>Dates</u>		
Partners involved:	LOICZ-IPO (Land Ocean Interactions in the Coastal Zone - International Project Office), University of Hawaii, University of Stockholm	Effectiveness/ Prodoc Signature (i.e. date project began)		July 1999
		Closing Date	Proposed: December 2001	Actual: December 2006
Prepared by: Rajesh Koirala	Reviewed by: Neeraj Negi	Duration between effectiveness date and original closing (in months): 29	Duration between effectiveness date and actual closing (in months): 89	Difference between original and actual closing (in months): 60
Author of TE: Peter David Whalley		TE completion date: October 2008	TE submission date to GEF EO: May 2009	Difference between TE completion and submission date (in months): 7

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

2. SUMMARY OF PROJECT RATINGS AND KEY FINDINGS

Please refer to document GEF Office of Evaluation Guidelines for terminal evaluation reviews for further definitions of the ratings.

Performance Dimension	Last PIR	IA Terminal Evaluation	IA Evaluation Office evaluations or reviews	GEF EO
2.1a Project outcomes	S	HS	S	S
2.1b Sustainability of Outcomes	N/A	S	MS	L
2.1c Monitoring and evaluation	--	MS	MS	UA
2.1d Quality of implementation and Execution	NA	NA	NA	S
2.1e Quality of the evaluation report	N/A	N/A	S-HS	S

2.2 Should the terminal evaluation report for this project be considered a good practice? Why?
 Yes. Although the terminal evaluation provides limited discussion on co-financing and M&E, the terminal evaluation reporting should be considered a good practice. The terminal evaluation reports on the project's achievements in a systematic and comprehensive manner. It also presents lessons that could be learned from the experience and provides recommendations that could be applicable for future projects.

2.3 Are there any evaluation findings that require follow-up, such as corruption, reallocation of GEF funds, mismanagement, etc.?
 No such instances have been noted in all the documents available for this review. Moreover, LOICZ was set to return UNEP a surplus fund of US \$18,000 (but UNEP requested LOICZ to utilize the fund in preparing an additional report - *A Management Perspective* – about the application of scientific tools developed by the project on management and policy decision making).

3. PROJECT OBJECTIVES

3.1 Project Objectives

a. What were the Global Environmental Objectives of the project? Were there any changes during implementation?
 According to the project appraisal document, the purposes of the project were *“to assemble: estimates of the impacts of nutrient enrichment on coastal waters; estimates of the changes in regional and global biogeochemical cycling of nutrients and carbon flux from coastal and shelf seas to the atmosphere; to assist governments in assessing the role of their coastal waters as sinks and/or sources of carbon; and thus to resolve scientific uncertainties concerning the Global Carbon Cycle.”*
 As per the information provided in the terminal evaluation, there was no change in the general purpose of the project.

b. What were the Development Objectives of the project? Were there any changes during implementation? (describe and insert tick in appropriate box below, if yes at what level was the change approved (GEFSEC, IA or EA)?)
 This is an outcome oriented project, and it has been specified to achieve two outcomes. According to the project appraisal document, the project will:
 1. *“Result in several hundred empirical models of carbon and nutrients in undisturbed and disturbed (polluted) coastal systems that will be of value at the local and national level in assessing the state of eutrophication and carbon source/sink status of the coastal ocean.”*
 2. *“Up-scaling, using model derived empirical data as surrogate information, will provide regional and global estimates of carbon flux required for balancing the global carbon budget and assessing the role of the coastal ocean in the global carbon cycle.”*
 According to the terminal evaluation, no change was made in the project outcomes.

Overall Environmental Objectives	Project Development Objectives	Project Components	Any other (specify)

c. If yes, tick applicable reasons for the change (in global environmental objectives and/or development objectives)

Original objectives not sufficiently articulated	Exogenous conditions changed, due to which a change in objectives was needed	Project was restructured because original objectives were over ambitious	Project was restructured because of lack of progress	Any other (specify)

4. GEF EVALUATION OFFICE ASSESSMENT OF OUTCOMES AND SUSTAINABILITY

4.1.1 Outcomes (Relevance can receive either a satisfactory rating or a unsatisfactory rating. For effectiveness and cost efficiency a six point scale 6= HS to 1 = HU will be used)

a. Relevance	Rating: S
<p>According to the project appraisal document, the project outcomes are consistent with the GEF Operational Program 10 (contaminant program), particularly Regional/Global Technical Support Component of this OP. Terminal evaluation states that the project is relevant to the GEF Strategic Program 2, reducing nutrient over-enrichment and oxygen depletion from land-based pollution of coastal waters.</p> <p>The project appraisal document explains that the project would contribute to a majority of coastal and archipelagic states that have initiated pollution monitoring and control programs in accordance with the Global Programme of Action for the Protection of the Marine Environment. Furthermore, the outputs from the project would help governments to assess national sources and sinks of greenhouse gases, and report to the Framework Convention on Climate Change.</p>	
b. Effectiveness	Rating: S
<p>Based on the information presented in the terminal evaluation, the project surpassed in almost all of its indicators in terms of developing models and capacity building programs. Adoption of tools by government and reduction of scientific uncertainty concerning the role of carbon cycling in global coastal ocean have been partially achieved.</p> <p>According to the terminal evaluation, Land Ocean Interactions in the Coastal Zone - International Project Office (LOICZ-IPO) found that both population density and run-off are major anthropogenic drivers of change in coastal water. It developed 170 budget models, which enable to quantify (1) the impacts of nutrient enrichment on coastal waters, and (2) the changes in regional and global biogeochemical cycling of nutrients and carbon flux from coastal and shelf seas to the atmosphere. The project focused on sub-tropical and tropical sites where data were previously limited, enabling more comprehensive global assessments. For the assessment of biogeochemical cycling, LOICZ-IPO developed CABARET, an electronic budget calculation tool. For scaling, the project produced modeling tools such as LOICZView electronic clustering (statistical tools) and the LOICZHexacoral, a companion electronic typology database. Additional biogeochemical modeling tools were developed to allow estimation of run-off and other variables and processes essential for site modeling. All tools are available electronically, and are supported with hardcopy and discs.</p> <p>To build up capacity on coastal zone nutrient modeling, LOICZ-IPO organized nine regional training workshops on biogeochemical budgets and their effective application at local to regional scales, and four regional/global assessment workshops on up-scaling and typology. From the workshop two assessment reports were published. Advanced training was provided for ten scientists; subsequently four acted as regional mentors, five acted as national focal points, and one acted as a project analyst. All 180 scientists trained are involved in network building, contributed as resource people in training workshops and two extended into postgraduate training within the purpose of the project. To strengthen building network, according to PIR 2001, the project initiated Regional Mentor Scheme. Mentors were appointed in three regions (Asia Central America and South Africa) with annual support of US \$ 8000.</p>	
c. Efficiency (cost-effectiveness)	Rating: MS
<p>The terminal evaluation notes that the existing program of LOICZ and networks of scientists helped to mobilize GEF resources better. The funds were spent in accordance with the objectives outlined in the project document. However, the project completion was significantly delayed. The project originally was planned for 29 months, but it was completed in 89 months.</p>	

4.1.2 Impacts: summarize the achieved intended or unintended impacts of the project.

<p>According to the terminal evaluation, methodology developed by the project is helping IGOS Partners to advance the implementation of the Global Earth Observation efforts. The modeling tools developed by this project have been used in reporting carbon information to UNFCCC by some countries such as the USA, South Africa and countries surrounding the North Sea.</p> <p>According to PIR 2001, scholars from different region who received training have returned to and applied the skills in their respective regions. They have also acted as a reference point for continuous intellectual exchange with other interested professionals around the world. Based on the terminal evaluation, this has been a great avenue to establish trust, goodwill and easy correspondence.</p> <p>Given the first modeling effort of disturbed estuarine and coastal systems, the project tools enable to simulate the potential impacts of increasing human population on coastal ecosystems. This work could lead to some policy measures to better manage coastal ecosystems.</p>
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4.2 Likelihood of sustainability. Using the following sustainability criteria, include an assessment of **risks** to sustainability of project outcomes and impacts based on the information presented in the TE. Use a four point scale (4= Likely (no or negligible risk); 3= Moderately Likely (low risk); 2= Moderately Unlikely (substantial risks) to 1= Unlikely (High risk)). The ratings should be given taking into account both the probability of a risk materializing and the anticipated magnitude of its effect on the continuance of project benefits.

a. Financial resources	Rating: L
Based on the information provided in the terminal evaluation, it is likely that the LOICZ will have access to the financial resources, required to continue the project activities, from several sources.	
b. Socio political	Rating: L
As per the information available in the terminal evaluation, continuation of project outcomes does not face socio-political risk.	
c. Institutional framework and governance	Rating: L
The terminal evaluation notes that until now no institute or policy framework has been developed on government side to apply project findings; however LOICZ's continuous work on dissemination of the project achievements will enable governments to apply methodology developed by the project. But on academic side, a wide group of scientists have used research findings and tools developed by the project in their course curricula and research projects.	
d. Environmental	Rating: L
Based on information presented in the terminal evaluation and PIRs, there is no environmental risk.	

4.3 Catalytic role

a.. Production of a public good
The terminal evaluation reports that the scientific community has been using the information collected by this project for research even after the project completion. Universities in South Africa, Philippines, Mexico, Brazil, Russia have incorporated the LOICZ approach in their teaching courses and training modules. The EU funded Erasmus Mundus's Master Programme on coastal and water management includes methodologies developed by this project. This has helped to train additional scientists in coastal management.
b.. Demonstration
The terminal evaluation reports that "project outputs assisted with two EU projects (EuroCAT and daNUbs)." But it does not provide further information on how and to what extent LOICZ was able to contribute to these projects.
c.. Replication
As explained in the terminal evaluation the tools developed by the project are being used in coastal management projects. For example UNIDO has consulted with LOICZ in using the approach developed by this project for a potential project examining nutrient reduction planning, monitoring and remedial measures in West Africa.
d.. Scaling up
Although no specific example of policy change due to the project is quoted in the report, the terminal evaluation mentions that "information from budget assessment is growingly being used in policy recommendation and decision making discourse." It further states that the EU and UNEP GPA interacted with LOICZ on the relevance and implications of fluxes to coastal oceans in the implementation of the Water Framework Directive and the Marine Strategy.

4.4 Assessment of processes and factors affecting attainment of project outcomes and sustainability.

a. Co-financing. To what extent was the reported co-financing (or proposed co-financing) essential to achievement of GEF objectives? Were components supported by co-financing well integrated into the project? If there was a difference in the level of expected co-financing and actual co-financing, then what were the reasons for it? Did the extent of materialization of co-financing affect project's outcomes and/or sustainability? If it did, then in what ways and through what causal linkages?
According to the terminal evaluation report, all the co-financing was materialized. In addition, the financing of LOICZ was US\$ 6000 more than the project document had foreseen (US\$192,000). The European Union also contributed US \$10,000 (it was not expected in the project appraisal document). No further discussion on co-financing is presented in the terminal evaluation and in the PIRs.
b. Delays. If there were delays in project implementation and completion, then what were the reasons for it? Did the delay affect the project's outcomes and/or sustainability? If it did, then in what ways and through what causal linkages?
There were significant delays in project completion. The project originally was planned for 29 months, and after three extensions, it was completed in total 89 months. According to the terminal evaluation, it was revised at first in 2001 for "an additional Polar and Africa workshops", the second revision in 2002 to extend data analysis "reflecting greater number of budgets" and third times in 2005 to organize final workshop on management and policy implications and recommendations. However, it does not seem to have affected project's outcome achievements and sustainability.
c. Country Ownership. Assess the extent to which country ownership has affected project outcomes and sustainability? Describe the ways in which it affected outcomes and sustainability highlighting the causal links.
The project was global in terms of its geographic scope. Further, it had a technical research focus, which limited the interest of the participating countries in its formulation and implementation. As is the case for such projects, it was driven more by the transboundary needs identified by the GEF and the implementing agency than the priorities of the participating countries. Although, it does help the participating countries to be able to report to UNFCCC.

4.5 Assessment of the project's monitoring and evaluation system based on the information in the TE

a. M&E design at Entry	Rating (six point scale): MS
The project appraisal document did not include a specific and detailed M&E plan. It states that necessary adjustment to the work plan and timetable of the project will be made based on the findings of quarterly reports submitted by LOICZ to UNEP. It specified three performance indicators, all of which are too broad. For example, one of the indicators is “the extent to which the results produced receive wide scientific acceptance.”	
b. M&E plan Implementation	Rating (six point scale): UA
Overall, it is difficult to assess the quality of M&E implementation because the terminal evaluation does not provide sufficient information on important parameters. Nonetheless, based on the available information some observations can be made. Mid-term M&E was not carried out. LOICZ did self assessment, against the project objectives with indicators defined in the project appraisal document. The terminal evaluation report presents few tables comparing anticipated and achieved outputs from the self-assessment. However no specific feedback and plan of action for future activities were mentioned. It leads to two possibilities: either terminal evaluation omitted to report or the self assessment didn't go to that depth. The PIRs submitted to the Secretariat report achievement and progress of the project, justified ratings, risk assessment, and lessons learned. The project appraisal document mentioned that change would be made in project work plan based on monitoring reports, but as per the information provided in the terminal evaluation, it can be inferred that no such change was made.	
b.1 Was sufficient funding provided for M&E in the budget included in the project document?	
US \$ 25,000 was allocated for M&E. It is difficult to assess whether this was sufficient.	
b.2a Was sufficient and timely funding provided for M&E during project implementation?	
UA	
b.2b To what extent did the project monitoring system provided real time feed back? Was the information that was provided used effectively? What factors affected the use of information provided by the project monitoring system?	
The PIRs were prepared and submitted by the implementing agency. Similarly, in addition to the PIRs, the self assessment report might have helped in tracking implementation progress to expected outcomes. However, since the terminal evaluation does not cover the extent to which the feedback from the monitoring system was used for adaptive management, it is difficult to assess its efficacy in facilitating better project implementation.	
b.3 Can the project M&E system (or an aspect of the project M&E system) be considered a good practice? If so, explain why.	
Unable to assess.	

4.6 Assessment of Quality of Implementation and Execution

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

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

Briefly describe and assess performance on issues such as quality of the project design, focus on results, adequacy of supervision inputs and processes, quality of risk management, candor and realism in supervision reporting, and suitability of the chosen executing agencies for project execution.

The implementing agency, UNEP, very appropriately selected LOICZ as an executing agency. According to the project document LOICZ operates through a global network of 2,500 marine scientists located in national governments, universities and research institutions in 140 countries. There were a few weaknesses in the project design document. The baseline situation and indicators of the project performance were too general. For example, one of the objectives states “develop several hundred empirical models.” According to PIR 2006, this was because M&E requirements at the time the project was designed were not as stringent. The IA provided adequate supervision, and was focused on achieving significant result from the project. This can be supported by the fact that despite not having a specific plan about the application of scientific tools developed by the project, UNEP Task Manager provided the unspent fund initially allocated to supervision (US\$14000) and requested LOICZ to organize a final workshop and prepare a final report, *A Management Perspective*. No information is available about further role played by the IA.

c. Quality of Execution – for Executing Agencies¹ (rating on a 6 point scale) S

Briefly describe and assess performance on issues such as focus on results, adequacy of management inputs and processes, quality of risk management, and candor and realism in reporting by the executive agency.

The executing agency, LOICZ, was capable of generating co-funding beyond the expectation of the project document. It engaged a large number of scientists from government and academia. According to the terminal evaluation, LOICZ mobilized existing network, and available tools and methods of biogeochemical modeling for this project. Reports to the IA were timely submitted, except the synthesis of the data base and completion of the associated final report which were delayed by five months. As mentioned in the PIR 2006, the EA encountered low or negligible internal or external risk. However, according to the PIR 2002, one challenge project faced was lack of nutrient budget data for South Asia, which were expected to be already available during the project design. To overcome this, LOICZ worked closely with leading scientists and institutions of the region, and established field programs to collect required data. According to the terminal evaluation, LOICZ managed the financial aspect well; all expenditures were supported by adequate documentations, and records and accounts were properly maintained. LOICZ had US\$18000 surplus at the end of project activities in 2002 for return to UNEP, but UNEP requested to prepare and additional report on management implications of project findings.

5. LESSONS AND RECOMMENDATIONS

Assess the project lessons and recommendations as described in the TE

a. Briefly describe the key lessons, good practice or approaches mentioned in the terminal evaluation report that could have application for other GEF projects

As described in the terminal evaluation, the following three are the lessons learnt from this project:

1. The Regional Mentoring structure was very successful in reaching a growing number of young scientists especially from developing countries for training and awareness of the project work.
2. Use of the “same experts from within the network” approach proved to be better than a “single regional visit of experts” approach for training workshops and other regional activities.
3. The final extension of the project to prepare a report on the ‘management perspective’ was beneficial to apply scientific achievements of the project to management and policy decision making.

b. Briefly describe the recommendations given in the terminal evaluation

Recommendations provided in the terminal evaluation are summarized as below:

1. The GEF and UNEP need to have a mechanism to integrate recommendations that arise from projects.
2. Future projects should explicitly develop a strategy for subsequent use by GEF / IAs on how the products of the scientific research can be utilized to policy change and management actions.
3. UNEP should include a detailed summary of the main outputs (in graphical or map format) of the LOICZ work that clearly shows the distribution of global budget model sites, trend information, and sinks/sources of carbon and nutrients.

¹ Executing Agencies for this section would mean those agencies that are executing the project in the field. For any given project this will exclude Executing Agencies that are implementing the project under expanded opportunities – for projects approved under the expanded opportunities procedure the respective executing agency will be treated as an implementing agency.

6. QUALITY OF THE TERMINAL EVALUATION REPORT

6.1 Comments on the summary of project ratings and terminal evaluation findings based on other information sources such as GEF EO field visits, other evaluations, etc.

NA

Provide a number rating 1-6 to each criteria based on: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, and Highly Unsatisfactory = 1. Please refer to document GEF Office of Evaluation Guidelines for terminal evaluations review for further definitions of the ratings. Please briefly explain each rating.

6.2 Quality of the terminal evaluation report	Ratings
<p>a. To what extent does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives? The report contains a good assessment of project achievements.</p>	S
<p>b. To what extent the report is internally consistent, the evidence is complete/convincing and the IA ratings have been substantiated? Are there any major evidence gaps? The report is consistent, evidence is complete and the ratings are well substantiated.</p>	S
<p>c. To what extent does the report properly assess project sustainability and /or a project exit strategy? The report incorporates proper assessment of project sustainability.</p>	S
<p>d. To what extent are the lessons learned supported by the evidence presented and are they comprehensive? Lessons learned are supported by evidence, but none of the recommendations appears to be connected to the lessons drawn from the project.</p>	MS
<p>e. Does the report include the actual project costs (total and per activity) and actual co-financing used? The report includes total actual cost and per activity. It also includes actual co-financing by agency, but not by activity.</p>	MS
<p>f. Assess the quality of the reports evaluation of project M&E systems? The report presents limited discussion on project's M&E system.</p>	MU

7. SOURCES OF INFORMATION FOR THE PRERATATION OF THE TERMINAL EVALUATION REVIEW REPORT EXCLUDING PIRs, TERMINAL EVALUATIONS, PAD.

NA