Terminal Evaluation Review form, GEF Evaluation Office, APR 2014

1. Project Data

Summary project data			
GEF project ID		51	
GEF Agency project ID		1586	
GEF Replenishment Phase		Pilot Phase	
Lead GEF Agency (include all for joint projects)		World Bank	
Project name		Lake Malawi/Nyasa Biodiversity Conservation	
Country/Countries		Malawi, Mozambique, Tanzania	
Region		AFR	
Focal area		Biodiversity	
Operational Program or Strategic Priorities/Objectives		OP2: Coastal, freshwater and marine ecosystems	
Executing agencies involved		Malawian Ministry of Natural Resources and Environmental Affairs	
NGOs/CBOs involvement		N/A	
Private sector involvement		Secondary executing agency	
CEO Endorsement (FSP) /Approval date (MSP)		12/30/1994	
Effectiveness date / project start		07/31/1995	
Expected date of project completion (at start)		07/31/1999	
Actual date of project completion		06/30/2000	
Project Financing			
		At Endorsement (US $M)	**At Completion (US $M)**
Project Preparation Grant	GEF funding		
	Co-financing		
GEF Project Grant		5.000	4.815
Co-financing	IA own		
	Government	0.200	
	Other multi- /bi-laterals	0.240	2.640
	Private sector		
	NGOs/CSOs		
Total GEF funding		5.000	4.815
Total Co-financing		0.440	2.640
Total project funding		5.440	7.455
Terminal evaluation/review information			
TE completion date		12/29/2000	
TE submission date		12/30/2000	
Author of TE		N/A	
TER completion date		09/27/2014	
TER prepared by		Sean Nelson	
TER peer review by (if GEF EO review)		Joshua Schneck	

2. Summary of Project Ratings

Criteria	Final PIR	IA Terminal Evaluation	IA Evaluation Office Review	GEF EO Review
Project Outcomes	N/R	N/R	N/R	MS
Sustainability of Outcomes	N/R	N/R	N/R	ML
M&E Design	N/R	N/R	N/R	MU
M&E Implementation	N/R	N/R	N/R	UA
Quality of Implementation	N/R	N/R	N/R	MU
Quality of Execution	N/R	N/R	N/R	MS
Quality of the Terminal Evaluation Report	-	-	N/R	MS

3. Project Objectives

3.1 Global Environmental Objectives of the project:

The project aimed to protect the biodiversity of Lake Malawi/Nyasa - one of the world's largest freshwater lakes. Most of the lake is in Malawi, though parts are also in Mozambique and Tanzania. The fish population in particular is diverse, with between 500 to 1,000 fish species observed in the Lake. This includes 395 of the approximately 400 known cichlid species in the world present in the Lake. Since many of these cichlid species are almost only found in the Lake, "they are vulnerable to extinction from overfishing, localized effects of pollution, and other environmental problems" (Project Document (PD), p. 1). The only protected part of the Lake is the southern portion that makes up Lake Malawi National Park (LMNP). The Malawian government established the Park in 1980 "as the first freshwater, underwater national park in Africa" (PD, p.1). It is now a UNESCO World Heritage Site.

3.2 Development Objectives of the project:

As stated in the PD, the Development Objectives (DOs) of the project are to help the local governments to create "the scientific, educational, and policy basis necessary for conserving the biological diversity of the Lake and its unique ecosystem" (PD, p. 2). The PD define 4 expected outputs and associated activities: 1) Research, 2) Capacity-Building, 3) Environmental Legislation and 4) Protected Area Management. These Outputs, along with expected activities, are shown below:

1) Capacity-Building:

    a. Enhancing local scientific capacity to enable surveying and monitoring the Lake's biodiversity, as well as threats to that biodiversity. This will also allow for local stakeholders to come up with scientifically-based Lake management suggestions.

b. Engaging local communities and regional/national leaders to promote biodiversity conservation awareness

2) Research:

a. Carrying out surveys of local species in the Lake, including denoting their habitats and measuring their populations. This will also include crafting suggestions to protect these areas.

b. Studying local water quality and pollution caused by humans

3) Protected Area Management:

a. Writing a Strategic Plan to encourage sustainable eco-tourism for both the LMNP and the Nankumba Peninsula that would include protecting the Lake's biodiversity

b. Creating a Biodiversity Map and Management Plan for the Lake. This will be based on the species survey, the habitat study and the water quality study. The Biodiversity Map and Management Plan is the project's primary output.

4) Environmental Legislation:

a. Evaluating Malawian, Mozambican and Tanzanian environmental legislative to its adequacy and to make suggestions for strengthening legislation related to protecting the Lake's biodiversity

3.3 Were there any **changes** in the Global Environmental Objectives, Development Objectives, or other activities during implementation?

Following the Mid-Term Review (MTR) and consultations with the 3 national governments, the Lake Management Plan (part of Output 3) was altered to make up for the fact the PD description was vague. These changes reduced the scope of Output 3. The new output would consist of the following 3 components:

1) An interim management plan that rested on the data collected during this project

2) Determination of what further scientific studies would need to be carried out in the future to make a more comprehensive Lake Management Plan. This would be part of a proposed "second-phase" project following this one that was not originally part of this project's design.

3) Recommendations for the second-phase project's TOR.

After the project's first year, the legislation component (Output 4) was moved to the Food and Agriculture Organization of the United Nations (FAO). The FAO made this component more ambitious and made it part of its Technical Cooperation Programme (TCP) as part of an international project. The TE is unclear over whether or not this component thus counted as a separate project from the Lake Malawi/Nyasa Biodiversity Conservation project.

The TE does not mention any changes to the plans for Outputs 1 and 2.

4. GEF EO assessment of Outcomes and Sustainability

Please refer to the GEF Terminal Evaluation Review Guidelines for detail on the criteria for ratings.

Relevance can receive either a Satisfactory or Unsatisfactory rating. For Effectiveness and Cost efficiency, a six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess. Sustainability ratings are assessed on a four-point scale: Likely=no or negligible risk; Moderately Likely=low risk; Moderately Unlikely=substantial risks; Unlikely=high risk. In assessing a Sustainability rating please note if, and to what degree, sustainability of project outcomes is threatened by financial, sociopolitical, institutional/governance, or environmental factors.

Please justify ratings in the space below each box.

4.1 **Relevance**	Rating: **Satisfactory**

This project is relevant to both the GEF and the three governments of Malawi, Mozambique, and Tanzania. The project's objectives are consistent with those of GEF Operational Program 2: Coastal, Freshwater and Marine Ecosystems, especially given the number of fish species whose habitats mostly or only existed in the Lake. When the PD was written, all 3 national governments were in the process of drafting National Environmental Action Plans (NEAPs) to address environmental protection and concerns, including protecting the Lake. According to the PD, these 3 governments understood that preserving the Lake's ecosystem "will depend on tri-national participation in lake management as well as building capacity in the monitoring, legislative and enforcement capabilities of the riparian governments" (PD, p. 1).

4.2 **Effectiveness**	Rating: **Moderately Satisfactory**

Summary: The public education campaigns seem to have been rather successful in engaging local communities, especially the theater troupe portion of the campaign. Local capacity-building programs mostly met their goals, but not perfectly. Some of the training programs appear to have not been well-designed or well-thought out. The project largely met its research goals, though only after multiple delays. The project's data still requires further analysis. The Project Area Management goals had been revised to be less ambitious. What successes the project saw for this component (the Strategic Plan for LMNP and the Nankumba Peninsula) were finished too late to be implemented on time as of the TE's writing.

1) Capacity-Building: **Moderately Satisfactory**

    a. Enhancing local scientific capacity to enable surveying and monitoring the Lake's biodiversity, as well as threats to that biodiversity. This will also allow for local stakeholders to come up with scientifically-based Lake management suggestions.

The project supported 8 MSc candidates and 2 PhD candidates who wrote their dissertations on the Lake's ecosystem. These candidates were from Malawi, Mozambique and Tanzania. All of the candidates remained in contact with the 3 Scientific Teams: the Systematics/Taxonomy team, the Limnology team and the Ecology team. However, not all of the candidates ended up working for the project itself. The government's long candidate selection process also meant that the candidates did not arrive on campus until the scientists overseeing the program were getting ready to leave, as their research was nearly finished.

22 staff members from the 3 project countries received 6 months of training through the project. However, the purpose of this training program was ill-defined. Not all of the staff members had career trajectories that involved the Lake in any manner. The TE is unclear if these were project staff members, officials from project country environmental ministries, etc.

b. Engaging local communities and regional/national leaders to promote biodiversity conservation awareness

The project contracted the South African theater troupe Theater for Africa (TFA) to train 11 actors from the 3 countries to perform plays promoting environmental awareness relating to the Lake. The performances were viewed by about 108,000 people across the 3 countries. In addition, the project organized public education events in 18 schools and 18 villages on the Nankumba Peninsula. 40 students and 90 local leaders also attended local workshops.

2) Research: **Moderately Satisfactory**

a. Carrying out biodiversity surveys of local species in the Lake, including denoting their habitats and measuring their populations. This will also include crafting suggestions to protect these areas.

Due to the research vessel's frequent breakdowns, the biodiversity surveys started late. The vessel, the RV Usipa, only became sea-worthy in 1997. The teams undertook 9 voyages to collect biodiversity data. This data was compiled into a final report and a database. Due to the firing of the original Senior Ecologist, much of the fish data still remains to be analyzed.

When a new Senior Ecologist was hired in 1998, a fish ecology program was carried out. This initiative focused on examining the ecology of the southern parts of the Lake where fish trawling took place. According to the TE, this "study did not sufficiently build on the first programme, but largely developed a new one in line with the PM's directive" (TE, p. 6). This may reflect the fact that the previous Senior Ecologist was terminated due to disagreements with the PM over the project's future direction, while the new Senior Ecologist was more amenable to the PM's views.

b. Studying local water quality and pollution caused by humans

This initiative led to the Water Quality Report, which the TE claims is of high quality, but does not lend itself to being easily summarized in the TE due to its complexity. The Fresh Water Institute of the Department of Fisheries and Oceans of Winnipeg, Canada carried out this study. This research team was

the largest of all the project's research teams, consisting mostly of international experts from Canada and the US. The Water Quality Report provided both baseline data while also examining "the effects and process of river discharge; atmospheric nutrient deposition; deep water renewal; nutrient upwelling and recycling; factors controlling algal abundance and composition, and contaminants in water, sediments and biota" (TE, p. 7).

c. Carrying out systematics and taxonomy studies

The studies discovered hundreds of previously undescribed fish species. The data collected and analyzed so far have been put into a database available on CD. A Lake fish guide was being prepared, but was not yet finished as of the TE's writing.

3) Protected Area Management: **Moderately Unsatisfactory**

a. Writing a Strategic Plan to encourage sustainable eco-tourism for both the LMNP and the Nankumba Peninsula that would include protecting the Lake's biodiversity

The TE claims the Strategic Plan was this component's main expected output, which contradicts the PD, which saw the Biodiversity Map and Management Plan as the project's primary output. The Strategic Plan met with multiple delays and was only finished in 1999. The project contracted out writing the Strategic Plan to an international consulting firm. The resulting Plan appears to have been well-received by local communities, but slow implementation of the Plan's recommendations appears to have discouraged these same communities. The Plan identified as a major problem the unregulated access local communities had to the local ecosystem's resources, which enabled unsustainable resource use. In response, the Plan called for communities to seek legal ownership of these resources so that these same communities could regulate their use. In addition, the Plan called for supporting a local sustainable tourism sector.

b. Creating a Biodiversity Map and Management Plan for the Lake. This will be based on the species survey, the habitat study and the water quality study. The Biodiversity Map and Management Plan is the project's primary output.

Per Section 3.3 of this document, the Biodiversity Map and Management Plan component was altered to be clearer and less ambitious. There are a number of databases of local flora and fauna, as well as data on local water systems. However, these were still being analyzed and had not yet become part of a Biodiversity Map. The only movement on the Management Plan was creating a regional cooperation framework, but this was not yet complete.

4) Environmental Legislation

a. Evaluating Malawian, Mozambican and Tanzanian environmental legislative to its adequacy and to make suggestions for strengthening legislation related to protecting the Lake's biodiversity

As per Section 3.3, this component was transferred to the FAO as part of an international project. The TE does not explicitly state if this output was dropped abandoned as part of this project. However, the budget line items under "Project Costs and Financing" in Annex 2 contains just a blank space the Legislation component's Actual/Latest Estimate (the Appraisal Estimate was US$130,000). According the TE, FAO underwent "the time-consuming preparation of a project document acceptable to each of the Governments... A draft agreement for international cooperation in the management of Lake fisheries, supported by legal instruments to harmonize current legislation, will be prepared for consideration and approval by an intergovernmental meeting" (TE, p. 8).

Since it is unclear from the TE whether or not this component now counted as a separate project, this component is not considered in this TER when deciding the Effectiveness rating.

4.3 **Efficiency**	Rating: **Moderately Unsatisfactory**

Delays: The project met with multiple delays. The TE lays ultimate responsibility for the initial delays on the Steering Committee (SC), which only first met 3 months into the project's life and infrequently after that. For instance, the RV Usipa research vehicle's frequent breakdowns delayed studying the Lake's biodiversity. The 3 governments were late selecting the PhD and MSc candidates for the graduate studies program to start on schedule. As a result, they did not get to properly collaborate with project scientists. The Strategic Plan for Nankumba Peninsula was only in 1999 after delays, which meant that it had not been implemented as of the TE's writing. The contract for writing the Strategic Plan was awarded 3 years behind schedule. The project required bringing research stations online to support project research. The Kyela station in Tanzania was only refurbished after delays, while the Metangula station was never built.

Financial Management: Nearly every aspect of the project went over budget. Originally, the research component was expected to cost US$2.46 million, but actually cost US$4.18 million. The national capacity element cost almost US$1 million more than the estimate, coming out to US$1.32 million, compared to an estimate of US$360,000. The overall project cost US$7.60 million, compared to an initial budget of US$5.44 million. The TE does not address what was behind this cost increase.

Management Issues: Internal disagreements between senior staff over roles and responsibilities inhibited quick project execution. The Steering Committee Chair and the Project Manager both believed they were in charge of the same tasks, which brought them into conflict. The original Senior Ecologist and Project Manager were also in conflict, which led to the firing of this Senior Ecologist. The World Bank went through 3 Task Managers during this project, which delayed project implementation and execution, while degrading institutional memory and maintaining links between institutions.

4.4 **Sustainability**	Rating: **Moderately Likely**

Summary: After altering the Management Plan goals, this project was largely comprised of research and capacity building. The remaining activities at this point are largely to finish analyzing the data that has already been collected, as well as enacting the Strategic Plan. The TE contains little information on the future of the Strategic Plan.

The project's sustainability is assessed futher along the following 4 risk dimensions:

Environmental: **Unable to Assess**

The TE does not discuss environmental risks to the project's sustainability.

Financial: **Unable to Assess**

The TE does not discuss the financial risks to the project's sustainability.

(In addition, the TE does not directly address if the remaining project activities have found funding. GEF was supporting turning the Senga Bay project site into an International Centre for Aquatic Research and Education (ICARE), but the TE was unclear if this was additional financing for a separate project or work to finish up uncompleted project activities.)

Institutional: **Moderately Likely**

The project's capacity building initiatives are being rolled into local Lake environmental management. The data collected during the project can also be used for the Lake Malawi Environmental Management Project if that moves forward, though that was unclear at the time. In addition, the data was available to the governments for any other conservation purposes. The 3 governments were supporting keeping the Senga Bay site running. However, not all of the 3 government's relevant ministries were operating at the same level of capacity.

Sociopolitical: **Moderately Likely**

The 3 governments were in talks as of the TE's writing to put forward legislation to protect the Lake's ecosystem and biodiversity, while also ensuring that their legislation was in sync. However, this was not yet complete and was a complicated process that had experienced delays.

5. Processes and factors affecting attainment of project outcomes

5.1 Co-financing. To what extent was the reported co-financing essential to the achievement of GEF objectives? 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 so, in what ways and through what causal linkages?

The PD originally stated that the project was to receive US$200,000 in local government financing and US$240,000 from CIDA Inc. In practice, CIDA also gave the project a further CDN$4.00 million (the TE does not give the date or the exchange rate for converting this into US$). Total CIDA contributions came to US$2.64 million. A high level of CIDA support appears to have helped make the water quality and

limnology research components of this project successful. DFID also paid for the research vessel's repair and maintenance costs, though the TE does not give the total amount.

The "Project Costs and Financing" section in Annex 2 of the TE breaks out GEF and CIDA contributions, but the cells in the column devoted to actual government contributions are left blank. This may mean the governments did not come forward with their promised co-financing or that this data was not yet available, but the TE is unclear on this point.

5.2 Project extensions and/or 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 so, in what ways and through what causal linkages?

The project met with multiple delays. The TE lays ultimate responsibility for the initial delays on the Steering Committee (SC), which only first met 3 months into the project's life and infrequently after that. For instance, the RV Usipa research vehicle's frequent breakdowns delayed studying the Lake's biodiversity. The 3 governments were late selecting the PhD and MSc candidates for the graduate studies program to start on schedule. As a result, they did not get to properly collaborate with project scientists. In the end, the research vehicle delays and the graduate school delays limited the speed of project execution, but had limited effect on the overall project outcomes.

More concerning is the delays regarding the Strategic Plan. The Strategic Plan for Nankumba Peninsula was only in 1999 after delays, which meant that it had not been implemented as of the TE's writing. The contract for writing the Strategic Plan was awarded 3 years behind schedule. The project required bringing research stations online to support project research. The Kyela station in Tanzania was only refurbished after delays, while the Metangula station was never built.

The project saw its closing date extended from July 31, 1999 to June 30, 2000. CIDA co-financing was extended to the end of 2000. The TE does not state why GEF or the World Bank chose to grant this extension or if this was a good idea.

6. Assessment of project's Monitoring and Evaluation system

Ratings are assessed on a six point scale: Highly Satisfactory=no shortcomings in this M&E component; Satisfactory=minor shortcomings in this M&E component; Moderately Satisfactory=moderate shortcomings in this M&E component; Moderately Unsatisfactory=significant shortcomings in this M&E component; Unsatisfactory=major shortcomings in this M&E component; Highly Unsatisfactory=there were no project M&E systems.

Please justify ratings in the space below each box.

6.1 **M&E Design at entry**	Rating: **Moderately Unsatisfactory**

The M&E design's indicators were not outlined in the PD, but instead was left until the PIP instead. The TE notes that the early missions made few technical recommendations and gave little technical

guidance, which may reflect a lack of well-defined M&E indicators. The PD includes an implementation schedule, including making sure to note that the Mozambican and Tanzanian components of the project would be subject to M&E. For instance, the Mid-Term Review was to be carried out 24 months following the date of project effectiveness at the latest. Annual Reports were due the second quarter of each year starting with the second year. The Project Manager was to submit quarterly report on each project output. However, the PD did not include a dedicated M&E budget.

6.2 **M&E Implementation**	Rating: **Unable to Assess**

The TE does not include adequate information to assess the quality of M&E implementation.

7. Assessment of project implementation and execution

Quality of Implementation includes the quality of project design, as well as the quality of supervision and assistance provided by implementing agency(s) to execution agencies throughout project implementation. Quality of Execution covers the effectiveness of the executing agency(s) in performing its roles and responsibilities. In both instances, the focus is upon factors that are largely within the control of the respective implementing and executing agency(s). A six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess.

Please justify ratings in the space below each box.

7.1 **Quality of Project Implementation**	Rating: **Moderately Unsatisfactory**

According to the TE, the Lake Management Plan had to be redesigned to be more realistic given the project's timeframe even though this Management Plan was originally a core part of the project. In addition, as mentioned above, M&E design had shortcomings. The Steering Committee met infrequently, yet it also appears to have micro-managed the project instead of trying to solve larger overall project problems, though the TE does not elaborate on exactly what type of micro-managing occured. In addition, the project chose a research vessel that needed much maintenance, which delayed starting research missions. As the TE puts it, “the well-balanced technical design of the Project's core science programme, as well as the Bank's decision to resist the proposed dubious tourist development in LMNP, could not be considered to outweigh the initial shortcomings” (TE, pp. 12-13). These problems include creating a project framework that made this largely a Malawian project (as opposed one that addressed all 3 governments equally) and failing to clearly defining the SC Chair's and Project Manager's roles in relation to each other.

The supervisory missions showed an early lack of technical guidance. In particular, “the first three missions (July 1995-March 1996) were very brief and did not provide the technical and managerial support needed by a project management team with little experience in implementing a project of this

sort" (TE, p. 12). This was followed by a period during which there were 3 different World Bank Task Managers and a lack of supervisory missions and support for about a year.

Once the third Task Manager was in place, the quality of supervisory missions appear to have improved, including carrying out missions with greater frequency and providing greater technical support, in part because the supervisory staff now included scientists with relevant skills and knowledge. According to the TE, "defining better the scientific outputs of the project was one of the supports provided by these missions, which were indeed instrumental in assisting the scientists to achieve their objectives successfully" (TE, p. 12). This later period also saw the other donors participate as part of the supervisory missions, which improved linkages between the project teams, the co-financiers and the relevant ministries. Supervision appears to have been of particularly high quality during the project's last 6 months. However, the supervisory missions did not uncover the tensions between the Senior Ecologist and the Project Manager nor the problems making the Kyela and Metangula research stations operational.

7.2 **Quality of Project Execution**	Rating: **Moderately Satisfactory**

There was a lack of coordination between the 3 governments during the planning stages. The TE states that "in addition, it should have been anticipated that an institutional arrangement that gave an unbalanced authority among the three countries would have created friction between them. However, the blame in this matter should be shared equally between the Governments and the Bank" (TE, p. 13). The Mozambican and Tanzanian governments appear to have been unhappy that they were carrying out what was essentially a Malawian project, meaning they appeared to be less committed to reaching project goals. The project also started off slowly. Also, the project failed to create a Research Advisory Group. With this said, the project did carry out all of its assigned tasks once the DOs were modified, even if some were executed late. Adapting to the MTR to make the Lake Management Plan component less ambitious shows a willingness to change according to facts on the ground.

8. Assessment of Project Impacts

Note - In instances where information on any impact related topic is not provided in the terminal evaluations, the reviewer should indicate below that this is indeed the case. When providing information on topics related to impact, please cite the page number of the terminal evaluation from where the information is sourced.

8.1 Environmental Change. Describe the changes in environmental stress and environmental status that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

As this was largely a research project, the TE does not note any environmental changes due to the project.

8.2 Socioeconomic change. Describe any changes in human well-being (income, education, health, community relationships, etc.) that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

The project was research focused, so the project devoted less attention to fostering socioeconomic changes. The Lake Management Plan was finished to late to be implemented. According to the TE, “the delay in implementing the plan appears to have discouraged local communities, whose expectations for a rapid development programme were raised during the preparation of the plan,” (TE, p. 8) especially regarding the eco-tourism component.

8.3 Capacity and governance changes. Describe notable changes in capacities and governance that can lead to large-scale action (both mass and legislative) bringing about positive environmental change. “Capacities” include awareness, knowledge, skills, infrastructure, and environmental monitoring systems, among others. “Governance” refers to decision-making processes, structures and systems, including access to and use of information, and thus would include laws, administrative bodies, trust-building and conflict resolution processes, information-sharing systems, etc. Indicate how project activities contributed to/ hindered these changes, as well as how contextual factors have influenced these changes.

a) Capacities:

The project helped to increase the local governments' research capacity through providing graduate education to the 10 students in MSc and PhD programs. 22 project staff benefited from numerous workshops, which will help to improve their technical capacity (TE, p. 9, 20). The project also helped to create academic associations between local ministries and 3 universities: the University of Manitoba, the University of Waterloo and Rhodes University. Multiple research stations were built or refurbished. The project also carried out a strong local public education campaign, which has helped to improve local environmental awareness. This includes establishing a village trust in Nankumba Penninsula, refurbishing the Environmental Education Centre at Cape Maclear, holding 2 Wildlife Club workshops for local schoolteachers, holding workshops for 80 local leaders and performing plays on environmental issues for more than 100,000 viewers (TE, pp. 20-21).

b) Governance:

Under the FAO, the 3 country governments are reviewing their environmental legislation regarding the Lake and attempting to ensure that their legislation and understanding are all consistent. However, this work was still in progress as of the TE's writing. It is also unclear if this was still technically part of this project, as it was being carried out by the FAO (TE, p. 8, 22). In addition, the Mozambican and Tanzanian governments felt “as if it was implementing a Malawian project, implying a loss of project ownership in the other two countries” (TE, p. 13).

8.4 Unintended impacts. Describe any impacts not targeted by the project, whether positive or negative, affecting either ecological or social aspects. Indicate the factors that contributed to these unintended impacts occurring.

The only unintended impact the TE notes is local community disappointment that the socioeconomic development plans in the Lake Management Plan could not be carried out in time (TE, p. 8).

8.5 Adoption of GEF initiatives at scale. Identify any initiatives (e.g. technologies, approaches, financing instruments, implementing bodies, legal frameworks, information systems) that have been mainstreamed, replicated and/or scaled up by government and other stakeholders by project end. Include the extent to which this broader adoption has taken place, e.g. if plans and resources have been established but no actual adoption has taken place, or if market change and large-scale environmental benefits have begun to occur. Indicate how project activities and other contextual factors contributed to these taking place. If broader adoption has not taken place as expected, indicate which factors (both project-related and contextual) have hindered this from happening.

No GEF initiatives were taken to scale as of the TE's writing.

9. Lessons and recommendations

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

The following were noted in the “Lessons Learned” section of the TE, as well as the “Lessons Learned” section of the ICR Aide Memo in TE Annex 7:

- The project made the right call by focusing on collecting hard data on the Lake's biodiversity and ecology, which was lacking before the project. Improving local scientific capacity was also the right thing to do.

- Weak institutional linkages will likely delay future action informed by project data and the project's experience. The TE gives the example of weak links forged by the project between the Malawian Fisheries Department (especially the Fisheries Research Unit), the Water Resources Department of the Ministry of Water Development and the University of Malawi.

- Monitoring local ecological and biodiversity indicators at the Lake will be important. Extending the project deadline helped to ensure the 3 countries' local scientific and technical capacities have been increased, which is especially important for enacting any future projects building off of this project.

- Creating multinational committees to oversee projects and enact changes is a difficult and time-consuming task. Not all countries will have the same immediate interests or the same capacities to reach common goals. This requires patience when executing projects between multiple countries. Such projects also require more complex management and management support.

- The arts component of the public education campaigns appears to have highly successful, which suggests that theater can be an important part of future environmental awareness campaigns. However, the project did not plan to create sustained links between the local arts community and relevant local environmental or governmental institutions, which limits their future effectiveness. The PD did not plan for sustaining these campaigns, which means the campaigns' gains may be unsustainable.

- The project benefited from having bilateral donors fund specific project components in which the bilateral donors took particular interest. This helped to make these ventures successful, such as CIDA's funding of the limnology and water quality studies.

- High staff turnover degrades institutional memory and inhibits easy relations between implementing and executing agencies. Meanwhile, having a consistent staff helps to maintain institutional memory and links between implementing and executing agencies, include when it comes to supervision and M&E. The experience of going through multiple Task Managers makes this point explicit.

- Projects need to have either a clear research or socioeconomic development focus. If a project must have both components, adequate management resources must be provided so that the research component does not get shortchanged while implementing socioeconomic developments components that distract from the project's core focus.

- Project teams and project designers need to make sure project plans and equipment are adequate. The TE notes that the lack of suitable equipment at Senga Bay in particular slowed down project execution.

- Different project members' roles and responsibilities need to be explicitly spelled out to avoid confusion and conflict. This is especially important to avoid having multiple senior project team members all believe they are the one in charge of the project. This occurred between the SC Chair and the Project Manager.

- Multi-country projects need to avoid placing more importance on one government to the other governments' detriment. This would avoid confusion and help increase country ownership among all governments.

- Linkages between project components needed to be made more explicit in the PD. If enacting one component satisfactorily is required for subsequent components to be carried out correctly, carrying out this first component should be explicitly stated as a criteria for satisfactory project execution. The delay in choosing the graduate students, which meant that they could not study under the chosen scientists at their graduate program, is one such component that other components relied upon.

- Project should not ignore local institutions and ministries that are relevant for realizing the project's long-term goals. This is especially true when projects hire foreign experts instead of

hiring local technical experts. The TE notes that the Fisheries Department was ignored during this project, which jeopardizes long-term country ownership because the Fisheries Department will have a harder time absorbing project lessons and are less committed to project goals after being snubbed.

- Project staff members need to be treated and paid fairly regardless of country of origin. Local staff at Senga Bay were paid based on local currency, while the international staff were paid salaries based on US$. (The exchange rate went from US$1 = MWK at project appraisal to 7.14 US$1 = MWK 58.0 at project completion.) This created a sense of injustice and unequal treatment among project staff that hurt project execution.

9.2 Briefly describe the recommendations given in the terminal evaluation.

The TE does not have a section dedicated to given recommendations for the future. However, the following can be inferred from the TE's body and the “Lessons Learned” sections:

- Stronger institutional linkages within countries and between the 3 countries will need to be fostered to ensure country ownership and mission sustainability across all 3 countries.
- A subsequent project focusing on analyzing the project's data, maintaining Lake monitoring and implementing the Strategic Plan should be pursued. Staff will need to be treating equally and fairly regardless of country of origin.
- Complete the Biodiversity Map based on Lake data gathered during this project.

10. Quality of the Terminal Evaluation Report

A six point rating scale is used for each sub-criteria and overall rating of the terminal evaluation report (Highly Satisfactory to Highly Unsatisfactory)

Criteria	GEF EO comments	Rating
To what extent does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives?	The TE is thorough in addressing the outcomes of each project component. However, the TE is unclear whether or not the legislative component was still technically part of this project.	**MS**
To what extent is the report internally consistent, the evidence presented complete and convincing, and ratings well substantiated?	The TE is internally consistent and well-argued. However, the TE's body should have provided more information regarding points brought up in the "Lessons Learned," such as unequal pay and a feeling of unequal treatment among project staff from different countries of origin.	**MS**
To what extent does the report properly assess project sustainability and/or project exit strategy?	The TE accomplishes this goal as well as could have been expected at that point since it was unclear if a subsequent project would be pursued. The TE argues convincingly for the level of project sustainability based on improved local technical and scientific capacity. However, the TE is unclear about financial sustainability and if GEF was continuing to fund certain activities as part of this project or as part of a separate project.	**MS**
To what extent are the lessons learned supported by the evidence presented and are they comprehensive?	The "Lessons Learned" sections tend to be well-supported. However, some of the issues brought up in these sections should have been elaborated upon in greater detail in the TE's body, such as unequal pay and a feeling of unequal treatment among project staff from different countries of origin.	**MS**
Does the report include the actual project costs (total and per activity) and actual co-financing used?	Annex 2 is a "Project Costs and Financing" section. Some line items are broken out, such as "Vehicles" and "Operating Costs," but these categories lack specificity to determine why cost overruns occurred. The TE does not adequately address why some parts of the project went over budget. The TE is also unclear over whether or not the project governments delivered their promised co-financing.	**MU**
Assess the quality of the report's evaluation of project M&E systems:	The TE could have been clearer over problems with the M&E's initial design. The TE could have been clearer regarding how well the M&E process was implemented,.	**MU**
Overall TE Rating		**MS**

Overall TE rating: (0.3 * (4+4)) + (0.1 * (4+4+3+3)) = 2.4 + 1.4 = 3.8 = Moderately Satisfactory

11. Note any additional sources of information used in the preparation of the terminal evaluation report (excluding PIRs, TEs, and PADs).