



GEF COUNTRY PORTFOLIO STUDY: SIERRA LEONE (1998-2013)

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CHAPTER 1. MAIN CONCLUSIONS AND LESSONS

1.1 BACKGROUND AND OBJECTIVES

Country Portfolio Studies (CPSs) are conducted as part of the country level evaluation work of the GEF Independent Evaluation Office. In addition to Country Portfolio Evaluations (CPEs), CPSs increase the coverage of country portfolios in a given GEF geographic region, but have a reduced focus and scope as compared to CPEs. CPSs are undertaken in parallel to country level evaluations conducted by the independent evaluation units of GEF Agencies. The purpose of CPEs and CPSs is to provide the GEF Council with an assessment of how GEF is implemented at the country level, to report on results from projects and assess how these projects are linked to national environmental and sustainable development agendas as well as to the GEF mandate of generating global environmental benefits within its focal areas.

These studies have the following objectives:

- i. independently evaluate the **effectiveness** and **results**¹ of completed projects aggregated by focal area;
- ii. assess the **relevance** and **efficiency**² of the GEF support in a country from several points of view: national environmental frameworks and decision-making processes; the GEF mandate and the achievement of global environmental benefits; and GEF policies and procedures;
- iii. provide **feedback** and **knowledge** sharing to (1) the GEF Council in its decision making process to allocate resources and to develop policies and strategies; (2) the Country on its participation in, or collaboration with the GEF; and (3) the different agencies and organizations involved in the preparation and implementation of GEF funded projects and activities.

1.2 SCOPE AND METHODOLOGY

The Sierra Leone Country Portfolio Study covered the full range of GEF-financed interventions, including national projects and Sierra Leonean components of regional and global projects. The Sierra Leone GEF portfolio is relatively young, as the country could not effectively participate during its civil war, which ended in 2002. The principal focus of the evaluation has therefore been on the few national projects that are either completed or under implementation. Pipeline projects have only been assessed in terms of their relevance to the priorities of various stakeholders.

The CPS used a variety of evaluation methods. Its starting point was a detailed review of public and internal documents, including those from UNDP, UNEP, UNIDO, the World Bank, the GEF Independent Evaluation Office, Sierra Leone Government, particularly the Environmental Protection Agency, and other sources. These documents assisted in framing and tailoring the interview protocols to the Sierra Leonean context.

¹ **Effectiveness:** the extent to which the GEF activity's objectives were achieved, or are expected to be achieved, taking into account their relative importance; **Results:** in GEF terms, results include direct project outputs, short- to medium-term outcomes, and progress toward longer term impact including global environmental benefits, replication effects, and other local effects.

² **Relevance:** the extent to which the activity is suited to local and national environmental priorities and policies and to global environmental benefits to which the GEF is dedicated. **Efficiency:** the extent to which results have been delivered with the least costly resources possible.

After the initial desk review work, a program of semi-structured interviews was drawn up with a broad range of partners which include UNDP country office partners, former project staff, the Government of Sierra Leone, NGOs, and other international agencies and donors.³ Respondents were invited to draw on their understanding and experience of project activities, challenges, and results, as well as the relevance of the portfolio of projects under development. These interviews and internal project reporting provided the major sources of primary data.

An understanding of the issues under review was obtained through the triangulation of information and data derived from a range of mixed-methods, including from desk review of monitoring data, completed enabling activity reports, and the resulting strategies and plans, midterm reports, one terminal evaluation report, self-evaluations, and interviews.

To explore the long-term results of the only completed Medium Size Project (MSP), a Review of Outcomes to Impacts (ROtI) was undertaken for the Sierra Leone Sustainable Land Management (SLM) Project. This is attached as part of Volume Two of this study. Using the standard ROtI methodology,⁴ group and individual interviews were conducted and key documents were critically reviewed to explore progress along a theoretical chain from outcomes to impacts in terms of Global Environment Benefits (GEBs).

The Sierra Leone CPS was conducted in parallel with the UNDP Assessment of Development Results (ADR) for Sierra Leone (2008-2012). The national consultant supporting the GEF IEO in conducting the CPS was also responsible for coverage of the UNDP Environment and Disaster Management portfolio. This provided advantages for both studies. For the CPS, it allowed a broader comparison of issues across sectors in a post-conflict country still in the process of building state institutions. Because the majority of the portfolio was implemented by UNDP, it provided opportunities to assess how the GEF-funded projects informed UNDP activities relating to management of the environment and disaster risk and response. However, synchronization of visits to the field by all members of the ADR was challenging. It was necessary for the national consultant to arrange separate meetings and visits to the field to collect data needed for the ADR and the CPS.

1.3 OVERVIEW OF THE GEF PORTFOLIO

As shown in Table 1, in terms of GEF funding and co-financing, the Sierra Leone portfolio is concentrated almost entirely on the Biodiversity and Climate Change focal areas, with climate change accounting for over two thirds of the GEF portfolio. This financing has been spread across 14 national projects and one global project⁵. The predominance of the climate change focal area extends across completed, on-going and pipeline projects. In terms of the environmental needs of the country and balance among focal areas, the striking area of under-representation is the land degradation focal area.

³ A list of persons contacted is contained in Annex.

⁴ See: GEF-EO and Conservation Development Centre (2009), *Towards Enhancing the Impacts of Environmental Projects: the ROtI Handbook*, Washington, DC

⁵ The Global Project, 'Umbrella Program for National Communications to the UNFCCC' (GEF ID 4498), has been included as part of the national portfolio for this report, as it involves a distinct national component in Sierra Leone, in effect, equating to a national enabling activity.

Table 1: GEF national portfolio by focal area and status

Project Status Focal Area	GEF Funding (US\$ m)				Co-financing (US\$ m)				Share of Portfolio (%)	
	Completed	On-going	Pipe-line	Total	Completed	On-going	Pipe-line	Total	% of GEF funding	% of Total funding
Biodiversity	0.275	6.800		7.075		22.180		22.18	26.41	18.71
Climate Change	0.509	4.968	13.128	18.605	0.020	38.648	68.232	106.90	69.44	80.28
POPs	0.395			0.395					1.47	0.25
Multi Focal Area	0.217			0.217	0.016			0.016	0.81	0.15
Land Degradation	0.500			0.500	0.442			0.442	1.87	0.60
Total	1.896	11.768	13.128	26.792	0.478	60.828	68.232	129.54	100.00	100.00

Table 2 shows that six of the twelve overall GEF Agencies are implementing projects in Sierra Leone. UNDP has resident staff in the country to manage its environmental portfolio and has the largest number of projects with seven. Overall, co-financing exceeds the GEF preferred ratio of at least 4:1, with IFAD and the World Bank falling slightly below this threshold.

Table 2: GEF Portfolio by Focal Area, Agency, Modality and GEF Support

Implementing Agency	Focal Area	No. of projects	Modality	Total GEF Support	Co-financing Ratio
AfDB	Climate Change	1	FSP	4.20	6.84
IFAD	Climate Change	1	FSP	2.74	3.14
UNDP	Biodiversity	1	EA	0.28	0.0
UNDP	Climate Change	2	EA	0.51	0.04
UNDP	Climate Change	3	FSP	8.93	4.42
UNDP	Land Degradation	1	MSP	0.50	0.88
UNEP	Climate Change	1	EA	0.41	0.07
UNEP	Multi Focal Area	1	EA	0.22	0.07
UNIDO	Climate Change	1	FSP	1.82	16.50
UNIDO	POPs	1	EA	0.39	0.0
World Bank	Biodiversity	2	FSP	6.80	3.76
All		15		26.79	4.84

Note: GEF Support in US\$ m; FSP – Full Size Project; MSP – Medium Size Project; EA – Enabling Activity; POPs – Persistent Organic Pollutants.

In addition to the national activities above, Sierra Leone has participated in 11 regional and 4 global projects. It was by participation in regional projects that Sierra Leone first received GEF funding. Although several have been small national capacity development activities, they have been very important to the country, as participation in them has enabled the country to cover a wider range of focal areas, although the majority of regional projects are still in the climate change focal area.

1.4 CONCLUSIONS

Results, Effectiveness and Sustainability

CONCLUSION 1: GEF support in Sierra Leone has successfully followed the catalytic path from foundation to demonstration to investment in full size projects, identified through enabling activities.

GEF started work in Sierra Leone in 1996, with the pipeline entry of the project, 'Enabling Sierra Leone to prepare its First National Communication in Response to its Commitments to UNFCCC' (GEF ID 296). However, because of the disruption caused by the civil war, the project could not become effective and start implementation until the end of the war in 2002. That and the other GEF enabling activities were therefore implemented after the end of the civil war between 2001 and 2008. This support resulted in the preparation of consolidated national environmental strategies and plans, and also enabled Sierra Leone to meet its obligations to the main international conventions. Strategies and plans provided a basis for development of medium and full sized national projects (MSPs and FSPs) that comprehensively address environment and natural resource management. A number of such projects have been developed and commenced operation since 2010 with GEF support. The GEF enabling activities also contributed to the 2008 amendment to the Environmental Agency Act. Further details of the results of GEF activities are discussed in the conclusions that follow.

CONCLUSION 2: GEF support in the focal areas of biodiversity, climate change and international waters have helped Sierra Leone to raise the profile of environmental issues, establish national priorities and make a start in addressing critical biodiversity conservation issues that are of global significance and climate change adaptation measure of national importance.

The GEF **biodiversity** projects in Sierra Leone have been broadly successful in delivering their results, or are being successfully executed along the expected lines that should enable them to deliver the expected results. The enabling activity in biodiversity (GEF ID 1289) has allowed Sierra Leone to meet its obligations to the global environmental convention, the CBD, and to produce an NBSAP. Sierra Leone has succeeded in sustaining the result achieved in the enabling activity by obtaining the necessary GEF funding and substantial co-financing to implement follow up FSPs. These FSPs are now making a valuable contribution to increasing the number, size and integrity of a variety of global ecosystems by delineating representative samples of ecological areas and declaring them as legally protected. GEF interventions are leading to environmental benefits in the area of protection and preservation of the country's biodiversity, some of which is of global importance, including the protection of important wetlands ecosystems.

In the field of **climate change**, GEF support has helped Sierra Leone to substantially increase its capacity in adaptation measures – through the Least Developed Countries Fund (LDCF) – and expansion of the use of renewable energy. The adaptation activities have enhanced national capacity to understand and track the effects of climate change and to plan responses to them. GEF support has enabled the country to secure substantial co-financing for the measures necessary to further reduce GHG emissions, adapt effectively, and lower vulnerabilities associated with climate change.

GEF support in the area of **international waters** has been through provision of funding through regional activities. These have been of significant importance to Sierra Leone, given the importance of marine fisheries to the economy and the strong link between terrestrial, coastal and marine activities and development. As such, they have enabled the country to sign regional protocols on protection of its marine and coastal environments, to substantially increase surveillance and reduce illegal fishing, creating space for the development of a new long-term policy vision, based on more sustainable exploitation of its fisheries resources.

CONCLUSION 3: GEF support in some focal areas, especially Land Degradation and POPs, has had limited results, and have not succeeded in establishing the intended foundations that would enable the country address critical issues in the two focal areas.

The GEF support in **persistent organic pollutants** has been restricted to one enabling activity (GEF ID 2486), which enabled the country to develop its National Implementation Plan (NIP) for POPs. However, there have been no follow-up activities.

Reverting **land degradation** and promoting sustainable land management is one of the most important national environmental challenges facing Sierra Leone and GEF support has enabled the country to build some limited capacity in support of sustainable land management and mitigation of the threats of land degradation.

However, the project had an overambitious design in terms of the expected outputs and outcomes, and given its size and duration. The challenge is now to mainstream sustainable land management into policies, laws, programs, budgets and regulatory frameworks as envisaged, and to secure the necessary funding to implement those programs identified.

Relevance

CONCLUSION 4: GEF support in Sierra Leone has been relevant to its strategic development plan and priorities, as well as to the country's efforts to fulfil its obligations under the international agreements to which it is signatory, and contribute to the achievement of Global Environmental Benefits.

The GEF portfolio has been relevant to the country's sustainable development agenda and needs. It addresses one of the main pillars of Sierra Leone's national development strategy; Pillar 2 of the Country's *Agenda for Prosperity (AfP)*, which is the third Poverty Reduction Strategy Paper (PRSP III) and is focused on managing natural resources. GEF enabling activities have been catalytic and have laid the foundation for follow up activities in biodiversity and climate change, making it possible for the country to fulfill its obligations to the UNFCCC, CBD and UNCCD.

GEF support in the area of climate change is highly relevant in allowing the country to address issues on adaptation and mitigation of climate change including development of adaptive agricultural production systems.

GEF support in the area of land management has fitted well with local needs due to fact that it addresses one of most pressing constraints in agriculture – the principal livelihood means for rural people – namely soil fertility and land degradation issues.

The portfolio is also relevant to achievement of GEBs. Although Sierra Leone is a small country and therefore a minor player in contributing to the achievement of GEBs, all the GEF funded projects have made some contribution, however small. Though Sierra Leone's GHG emissions are negligible, in a bid to significantly contribute towards the reduction of sources and potential sources of emissions or to enhance carbon sinks, the country is undertaking appropriate mitigation actions as indicated in its response to the *Copenhagen Accord* in 2010.

Biodiversity conservation activities are also relevant to the achievement of GEBs. They are making a valuable contribution to increasing the number, size and integrity of a variety of globally important ecosystems by delineating representative samples of ecological areas and declaring them as legally protected. Over 150,000 ha of savanna woodlands and montane forests, and 260,000 ha of wetlands of international importance, with diverse endemic flora and threatened species, have been declared as protected areas and are developing community based management plans to ensure sustainability.

GEF support through regional projects are relevant to achievement of the GEBs on assessment and management and sustainable use of living and non-living resources in the Guinea Current Large Marine Ecosystem (GCLME), and protection of the globally significant fish habitats and fish stocks in the Canary Current Large Marine Ecosystem, two of the 64 large marine ecosystems that have been delineated worldwide.

Efficiency

CONCLUSION 5: All GEF Agencies active in Sierra Leone have experienced problems in keeping projects within their intended time limits.

GEF enabling activities and the MSP prepared after the end of the civil war between 2001 and 2008 have been prepared under the 22 months limit later imposed for GEF 4. However, the FSPs under implementation designed under GEF 4 and 5 have project cycle times that are significantly longer than the GEF guidance of 22 months under GEF 4, and 18 months under GEF 5. All GEF Agencies have had delays whether with resident or non-resident representation in the country. General slowness on project cycle times is mostly related to the country coming out of a civil war situation, still being fragile and facing reconstruction problems. Particularly, delays have been due to the time it takes to collect background information in a situation where there are no centralized data banks on environmental issues thus necessitating field data collection from target communities; the time it takes to get projects operational; the process of identifying and recruiting consultants, often international, due to the limited human resource capacity available in collaborating national institutions; and the extended procedures for project approval in the GEF Agencies. However, there are recent welcome indications that project cycle durations are becoming shorter.

CONCLUSION 6: The GEF portfolio has been executed within GEF guidance as far as distribution of costs is concerned and has successfully leveraged significant co-financing.

The distribution of project costs follows GEF guidance and GEF funding has facilitated the leveraging of significant co-financing. As shown in Table 14: Distribution of project costs - of the main report, PPG/PDF costs at 1.8% for enabling activities and 3.7% for full size projects are reasonable. For the FSPs, they facilitated the leveraging of significant co-financing (83% of total project costs). On the average co-financing exceeds the GEF preferred ratio of at least 1:4, with only IFAD and the World Bank falling below that threshold. This shows that GEF grants have been effectively used in achieving one of the aims of GEF support to the national projects. Project management costs at an average of 5% for FSPs are within accepted GEF limits. At 28.09% they are on the high side for the enabling activities.

CONCLUSION 7: Partnership, collaboration and synergies have been good in the GEF portfolio. However there are challenges in developing formal linkages with civil society organizations, local government and the private sector.

Partnership, collaboration and synergies have been good. Most GEF projects have required cross-ministerial collaboration and coordination as climate change, land degradation, and biodiversity are all cross-cutting issues. It was common for projects to obtain support across ministries and agencies through a broad participatory process using cross sectoral steering committees and working groups. Projects were implemented by a management team that maintained strong linkages with all relevant stakeholders through committees and workshops, and projects generally exploited complementarities with relevant actors – academia, ministries, departments and agencies – and there was some interaction with other donor projects in the same focal area, particularly in biodiversity.

However, there were little or no formal linkages with Civil Society Organizations (CSOs) or private sector organizations. This is because of weak capacity of CSOs operating in the area of environmental management, often meaning that capacity building activities for the CSOs need to be incorporated into project activities; and the low possibility of getting private sector organizations involved due to the low financial returns expected in the short run. Although gender issues are not explicitly addressed in the portfolio, implementation activities are usually gender neutral, and alternative livelihood activities usually include women's activities.

1.5 LESSONS LEARNED

LESSON 1: GEF should ensure that the projects it supports do not have overambitious designs in terms of expected outputs and outcomes, given the size and duration of its interventions and amount of co-financing secured.

The only project in the land degradation focal area, a MSP, demonstrated very clearly the major shortcoming of interventions in the area of environmental management where solutions require long term interventions with substantial funding. GEF support was in the form of a three-year MSP with no co-financing to build capacity for sustainable land management in Sierra Leone through the removal of the key barriers to sustainable land management and to mainstream SLM into laws, university and school curricula, and the national budget. The project was also set to create sustainable capacity and ownership in Sierra Leone to mitigate land degradation and thereby meet the country's obligations under the UNCCD. As revealed during the ROTI analysis (see Volume 2) the project did not achieve most of its outputs. Failure to achieve the projected outcomes/outputs was mainly due to unrealistic projections in project design, which were not sufficiently adjusted during the inception phase of the project. The duration was too short for a natural resources management project, and there was no exit strategy for completing project activities, let alone to scale them up.

CHAPTER 2. STUDY FRAMEWORK AND CONTEXT

2.1 BACKGROUND AND OBJECTIVES

Evaluations of Global Environmental Facility (GEF) support at the country level are one of the main streams of evaluative work of the GEF Independent Evaluation Office (GEF IEO). Country Portfolio Evaluations (CPE) increase the understanding of how GEF support fits into national priorities and policies, provide useful feedback on the aggregate results of the portfolios and overall shed light on how the GEF works at the country level. During GEF-5, in addition to CPEs, the Office is increasing the country-level evaluative coverage through joint country-level evaluation work between the Office and the independent evaluation offices of GEF Agencies. Joint evaluations aim at reducing the evaluation burden to countries while at the same time producing more informed and complete evaluations. Joint evaluation work leads to parallel reporting to the GEF Council and the board of the GEF Agency concerned.

One form of coordinated country evaluation occurs through the conduct of GEF Country Portfolio Studies (CPS), which are synergetic to country-level evaluations conducted by the independent evaluation offices of other GEF Agencies. GEF CPSs are reduced in scope as compared with CPEs, with more concrete questions, fewer number of stakeholders to be interviewed (basically the key actors participating in the GEF in the country) and limited visits to projects (one or two completed projects to verify results).

The GEF Sierra Leone CPS was conducted in parallel with the UNDP Assessment of Development Results (ADR) for Sierra Leone (see Annex 1 for Terms of Reference). The CPS has three objectives:

- a. To independently evaluate the **results** and **effectiveness** of the GEF portfolio at the aggregate and country level;
- b. To assess the **relevance** and **efficiency** of the GEF activities in Sierra Leone from several points of view: national sustainable development and environmental frameworks; the GEF mandate, achievement of global environmental benefits; and GEF policies and procedures;
- c. To provide **feedback** and **knowledge sharing** to (1) the GEF Council in its decision making process to allocate resources and to develop policies and strategies and (2) the country on its participation on the GEF.

2.2 METHODOLOGY

The Sierra Leone Country Portfolio Study covered the full range of GEF-financed interventions, including national projects and Sierra Leone elements of regional and global projects. The Sierra Leone GEF portfolio is relatively young, as the country could not effectively participate during its civil war which ended in 2002. The principal focus is therefore on the few national projects completed as well as active. Pipeline projects are assessed only in terms of their relevance.

The CPS used a variety of evaluation methods. Its starting point was a detailed review of public and internal documents, including those from UNDP, UNEP, UNIDO, the World Bank, GEF IEO, Sierra Leone Government, particularly the Environmental Protection Agency, and other sources. These documents assisted in framing and tailoring the interview protocols to the Sierra Leone context.

After the initial desk review work, a program of semi-structured interviews was drawn up with a broad range of partners in the UNDP country office, former project staff, the government Sierra Leone, NGOs, and other international agencies and donors.⁶ Respondents were invited to draw on their understanding and experience of project activities, challenges, and results, as well as the

⁶ A list of persons contacted is contained in Annex 3, and sites visited in Annex 4

relevance of the portfolio of projects under development. These interviews and internal project reporting provided the major sources of primary data.

An understanding of the issues under review was obtained through triangulation of methods—desk review of monitoring data, completed enabling activity reports, and the resulting strategies and plans, midterm reports, one terminal evaluation report, self-evaluations, and interviews.

To explore the long-term results of the only completed GEF supported activity, a Review of Outcomes to Impacts (ROtI) was undertaken for the Sierra Leone Sustainable Land Management Project (GEF ID 3510). This is attached as Volume Two of this study. Using the standard ROtI methodology,⁷ group and individual interviews were conducted and key documents were critically reviewed documents to explore progress along a theoretical chain from outcomes to impacts expressed in terms of Global Environment Benefits (GEBs).

The consultant conducting the CPS was also responsible for coverage of the UNDP Environment and Disaster Management portfolio in the UNDP Assessment of Development Results (ADR). This provided advantages for both studies. For the CPS, it allowed a broader comparison of issues across sectors in a post-conflict country still in the process of building state institutions. Because the majority of the portfolio was implemented by UNDP, it provided opportunities to assess how the GEF-funded projects informed UNDP activities relating to disaster risk and response, etc.

Limitations were mainly those imposed by the absence of time or resources to conduct a broader range and greater depth of fieldwork. An additional issue was the difficulty of gaining access to some stakeholders, who were not available during the restricted period of the ADR and CPS. However, this was mitigated by the fact that the national consultant was resident in the country, and was therefore able to schedule appointments and conduct interviews over a time period that was outside that originally scheduled.

2.3 THE SIERRA LEONE ECONOMIC, SOCIAL CONTEXT AND POLITICAL CONTEXT

Socio-Economic Context

Seventy percent of the population of Sierra Leone lives in the rural areas and depends on agriculture and forest-related activities for food and income. The agricultural sector provides employment and export earnings. The active labor force of the country is estimated at 70% (3.5 million) of the population. Between 70% and 80% of the active labor force is engaged in farming. Most of this is at a near-subsistence level with the majority of the farmers cultivating farms of between 0.5 and 4.0 ha in size. Women make the largest contribution to rural labor especially in the production, processing, and marketing of crops and preparation of food.

With the exception of the western peninsular area, land in Sierra Leone belongs to the community and is held in trust by the paramount chief. However, some families have farming rights to land where their fore-fathers have been farming over the years, although such land has not been physically demarcated. In the western area peninsular and other municipalities in the provinces land can be bought, sold, transferred, leased, held in trust, etc. However farmlands cannot be bought or sold in the provinces. Lease holders have little incentive to make long-term investments for the efficient and sustainable development and management of the land. Also since the effective limits of family owned lands and lands administered by local authorities are not clearly defined, this has led to frequent land disputes especially over the exploitation of land and forest resources. Due to unclear property rights conflicts frequently arise between herdsmen, landowners and farmers.

⁷ See: GEF IEO and Conservation Development Centre (2009), *Towards Enhancing the Impacts of Environmental Projects: the ROtI Handbook*, Washington, DC

Rural life is generally at a near-subsistence level and over two-thirds of the total population lives in absolute poverty. Life expectancy is very low, estimated at 42 years. The infant mortality rate of 143 per thousand (1990) is considered to be one of the highest in the world. This situation has been greatly worsened by the past ten year civil conflict that ran from 1992 to 2002. It has been further exacerbated by increasing urbanization, population pressure on the available natural resources, inappropriate domestic policies and market failures such as over-valuation of the local currency, exchange rate controls and use of subsidized prices in energy and rice. Illiteracy is very high and large sections of the population remain unemployed, especially among the youths. In consequence, Sierra Leone is now classified as one of the poorest and least developed countries in the world based on the United Nations Social Development Index⁸.

Poverty in Sierra Leone⁹

Between 2003 and 2011, Sierra Leone has experienced continued macroeconomic growth, but still lags behind the sub-Saharan African average GDP per capita. This growth has generally translated into poverty alleviation. The poverty headcount has declined from 66.4 percent in 2003 to 52.9 percent in 2011. The overall reduction was led by strong growth in rural areas, where poverty declined from 78.7 percent in 2003 to 66.1 percent in 2011, yet this figure was overall still higher than urban poverty. Urban poverty declined from 46.9 percent in 2003 to 31.2 percent in 2011. This decline was despite an increase from 13.6 percent to 20.7 percent in the capital, Freetown. District level poverty analysis showed that by 2011 most districts had converged to poverty levels between 50 and 60 percent, with the exceptions being Freetown at 20.7 percent and levels above 70 percent in Moyamba and Tonkolili. Underlying this poverty reduction was an annualized 1.6 percent per capita increase in real household expenditure from 2003 to 2011. While steady positive progress is encouraging, much higher growth rates will be necessary to meet government's 4.8 percent targets outlined in the new Agenda for Prosperity¹⁰.

The characteristics of poor households varied between urban and rural areas in 2011. In rural areas, households in which the head's primary occupation is agriculture were more likely to be poor as well as those with smaller landholdings. Those growing rice were neither more nor less likely to be poor. In addition, households in which the head has at least some secondary or post-secondary education were less likely to be poor. In urban areas, education was a more important determinant of poverty status, as the increasing levels of education of the household head consistently reduced a household's probability of being poor. In addition, those households which were engaged in a non-farm enterprise and female headed households in urban areas were less likely to be poor.

Following stronger growth rates in districts with higher poverty rates and in rural areas compared to urban areas, the overall level of inequality has declined. Only urban areas outside Freetown showed

⁸ Sierra Leone's 2012 Human Development Index (HDI) of 0.359 is below the average of 0.466 for countries in the low human development group and below the average of 0.475 for countries in Sub-Saharan Africa. However, Sierra Leone, along with Angola, Burundi, DR Congo, Ethiopia, Liberia, Mali, Mozambique, Rwanda and Tanzania are among the countries that made the greatest strides in HDI improvement since 2000. This is an indication that the country is making progress in improving the lives of its people. It also means that the country has made progress in re-building its data systems and their growing credibility that allows for comparability across countries (UNDP (2013); Human Development Report 2013. The Rise of the South: Human Progress in a Diverse World)

⁹ World Bank (2013); A Poverty Profile For Sierra Leone World Bank, Poverty Reduction & Economic Management Unit, Africa Region, Statistics Sierra Leone, June 2013

¹⁰ The Government of Sierra Leone (2013); The Agenda For Prosperity: Road To Middle Income Status. *Sierra Leone's Third Generation Poverty Reduction Strategy Paper (2013 – 2018)*

higher inequality while both rural areas and Freetown have decreased. The areas where the largest decreases in inequality have been demonstrated have been between urban and rural areas, as rural areas have narrowed the gap with urban areas, and between different urban areas, reflecting the strong growth in urban areas outside Freetown compared with declines in the capital.

Demographically, Sierra Leone remains a rural and extremely young country. The majority of the population lived in rural areas in 2011, with most districts outside Freetown being more than three-quarters rural. In addition, the majority of the population was below the age of 20 and more than 75 percent are below the age of 35. Population growth has declined sharply from 2003 to 2011, though fertility has remained high at around four births per woman. Most children under five were born at home in 2011, though this percentage appears to have declined since the implementation of the Free Health Care Initiative in April 2010.

Educational completion rates are low by international standards, which is troublesome given the relationship between education and poverty. According to the 2011 Sierra Leone Integrated Household Survey, 56 percent of adults over the age of 15 have never attended formal school. Current enrollment indicators show mixed results from 2003 to 2011. Both net and gross primary enrollment rates have decreased, but some caution should be taken in interpreting these results as the 2003 survey was conducted in the immediate post-conflict period before the situation in many areas had fully normalized. Higher level education indicators have improved, however, as greater numbers of students were attending junior, secondary, and post-secondary education. They were also attending at ages more closely appropriate to grade level expectations. In addition, gender parity has almost been reached in primary education, though gaps do open as female students approach child bearing age. Substantial gaps remain across income groups and between urban and rural areas.

Access to public services was low overall, but particularly in rural areas, where individuals had to travel long distances to reach facilities.

2.4 SIERRA LEONE NATURAL ENVIRONMENT

The Physical Environment¹¹

Sierra Leone is located on the West Coast of Africa and covers an area of 72,300 km². It lies between latitude 6.55 N and 10.00 N. Approximately 56% of the land is below 150m above sea level. 6.1 million hectares (ha) are uplands and 1.16 million ha are lowlands.

The country is divided into four main physical regions: the Coastal Plains, the Interior Plains, the Interior Plateau and the Freetown Peninsula Mountains and hills. Combining the physical characteristics of these regions with crop growing seasons results in the five agro climatic regions: Coastal Plain, Savanna Woodland, Rain Forest/Savanna, Rain Forest, and Hills/Mountains (Figure 1:)

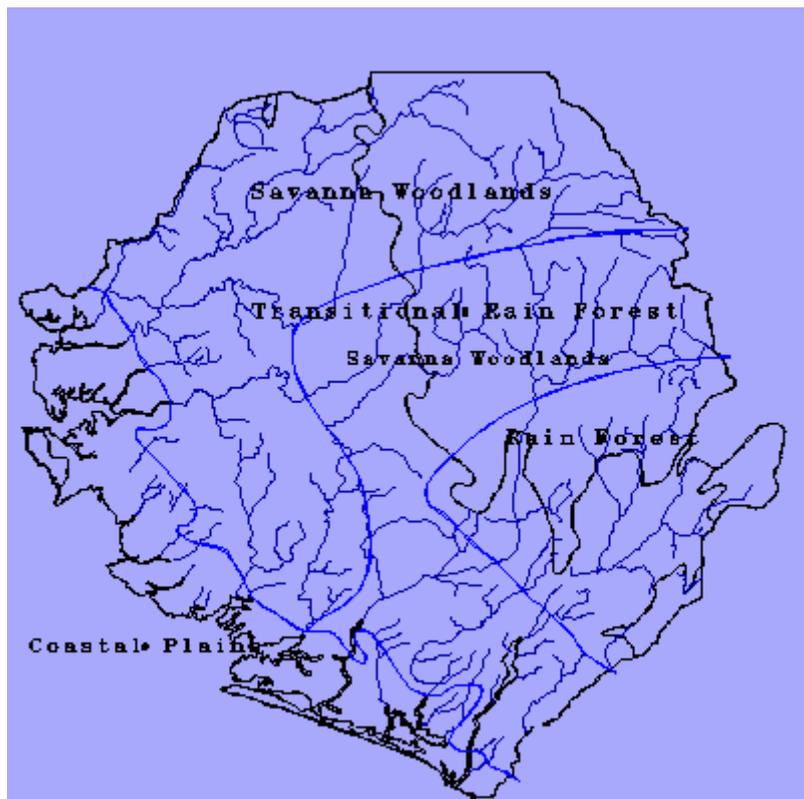
About 71 percent of uplands and 90 percent of the lowlands are arable. The lowlands are differentiated in four ecosystems: inland valley swamps (630,000 ha), mangrove swamps (200,000 ha), *bolilands* (120,000 ha) and riverine grasslands (110,000 ha). Less than 10 percent of total arable land is cultivated each year.

The climate is a monsoon type humid tropical with two distinct seasons – a rainy season from May to October and the dry season from November to April. Although rainfall is plentiful, ranging from about 2,000 mm/yr in the north to 4,500 mm/yr in the south, its erratic nature and poor temporal

¹¹ Based on Project Document (GEF ID 3510), UNDP, LDCs/SIDS Portfolio Project: Capacity Building for Sustainable Land Management in Sierra Leone.

and spatial distribution during the rainy season often cause problems to farmers. Sierra Leone's hydrological profile includes a series of rivers which run from the Guinean Dorsal Hills: the Kolenten or Great Scarcies, the Little Scarcies, Rokel, Jong, Sewa, Moa and Mano rivers. Other streams in the lowlands include the Ribi, Kukuli, Gbangbaia and Waanje rivers. Unpredictable flooding and drought spells during the growing season, and the prolonged dry season pose serious challenges for water management in the upland and lowland ecologies. Of the country's total surface and ground water potential, about 160 km³ per year, only about 0.37 km³/year is withdrawn, mainly for agriculture. Average monthly temperature ranges from 23°C to 29°C but is subject to seasonal extremes. Humidity is high all year, especially in the coastal areas. The dry season is characterized by the strong, dry, dust-laden wind known as the Harmattan.

Figure 1: Agro-climatic regions in Sierra Leone



Source: UNDP/FAO (1979)¹²

At present the following vegetation communities can be distinguished – forests, savannas, grasslands and swamps. Sierra Leone was originally a forested country with over 60% of its land covered by closed high forest of moist evergreen and semi-deciduous types, the rest being woodland savanna of the guinea type. Today nearly 70% of its forest cover has been lost. The main direct cause of deforestation has been forest conversion to the slash-and-burn type of agricultural system in which about 75 percent of the country's population is engaged. This situation is further aggravated by the growing farming population, the attendant shortened fallow periods and declining yields and the consequent need to clear even more forest to make up for the declining yields. Less than five percent of the original primary forest remains in isolated forest reserves on top of

¹² United Nations Development Programme/Food and Agriculture Organisation of the United Nations (1979). Land in Sierra Leone: A Reconnaissance Survey and Evaluation for Agriculture. Land Resources Survey, Sierra Leone. AG:DP/SIL/73/002. Technical Report.

mountain and hillsides, particularly at Gola (77,044 hectares), Kambui (21,213 ha), Dodo Hills (21,185 ha), Nimini (15,557 ha), Freetown Peninsula (14,089 ha), Tama (17,094 ha) Tonkoli (47,656 ha), Kasewe (2,333 ha), Loma (33,200 ha), Sanka Biriwa (11,885 ha), Kuru Hills (7,001 ha and Kangari Hills (8,573 ha).

Sierra Leone is well endowed with natural resources of arable soils, forests, grasslands, freshwater resources, wetlands (swamps), wildlife, extensive fisheries and other biodiversity resources and mineral resources. The exploitation of these resources during the colonial period and during the first twenty years after Independence from 1961 to 1980 resulted in steady economic development. The comparatively lower population allowed for longer fallow periods and a higher level of agricultural sustainability. However, from the early 1980s to recent years the exploitation of these resources became unsustainable due mainly to the increase in population and to market failures such as over-valuation of the local currency, exchange rate controls and use of subsidized prices for energy and rice.

Climate Change¹³

Various models have been used to assess future climate change scenarios for Sierra Leone, such as the GCM (General Circulation Model)¹⁴, HADCM (Hadley Centre Coupled Model)¹⁵, ECHAM (climate change model developed at the Max Planck Institute for Meteorology in Hamburg)¹⁶. The average temperature for 1961-1990 is about 26.7°C. This average is expected to increase by about 7-9 percent by the year 2100.

Climate data for the period 1961 to 1990 were used to construct the climate change scenarios for Sierra Leone. Data were sourced from the following meteorological stations; Lungi, Bonthe, Kabala, Njala and Bo. The parameters used for the study were precipitation (Rainfall) temperature, solar radiation, evaporation etc. It was evident from the study that the coastal areas experienced the heaviest rainfall in the form of Torrential rains. The study period (1961-1990) shows an average annual rainfall of about 2746 mm which varied from 3659 mm at Bonthe in the south to 2618 mm at Kabala in the North

Projection from the 1961-1990 using the ECHAM-4 and HDCM2 models for the rainfall values at 2100 are similar to the current climate rainfall amount, while the CSIRO-TR (climate model developed for the Australian Commonwealth Scientific and Industrial Organization) and UKTR models show a decrease in rainfall by about 3-10% below the current monthly and annual values. Based on the GCM outputs, solar radiation is expected to decrease by 12% under the HADCM2, by 9% under the UKTR model, and under the CSIRO-TR and ECHAM models by 5%. In Sierra Leone, based on the last reference MAGICC/SCENGEN (Model for the assessment of GHG induced climate change/Scenario Generator),¹⁷ CO₂ concentration of about 350 parts per million (PPM) was determined in 1990. Double CO₂ concentration levels of about 580ppm are likely to be achieved by 2025 and about 700ppm by 2100. Sea level rise (SLR) scenarios adopted in this study are 0.2m as baseline and 0.5m, 1.0m and 2.0m by 2100.

There is an indication of consistent temperature warming across all seasons and scenarios in Sierra Leone. The projected 1.5⁰-2.0⁰ Celsius increase in temperature (Figure 2:) will result in increased evaporation losses, decreased precipitation, and a continuation of rainfall decline.

¹³ From: Republic of Sierra Leone (2012), Second National Communication on Climate Change to the UNFCCC, UNDP/GEF, pp 142-200

¹⁴ http://en.wikipedia.org/wiki/General_Circulation_Model

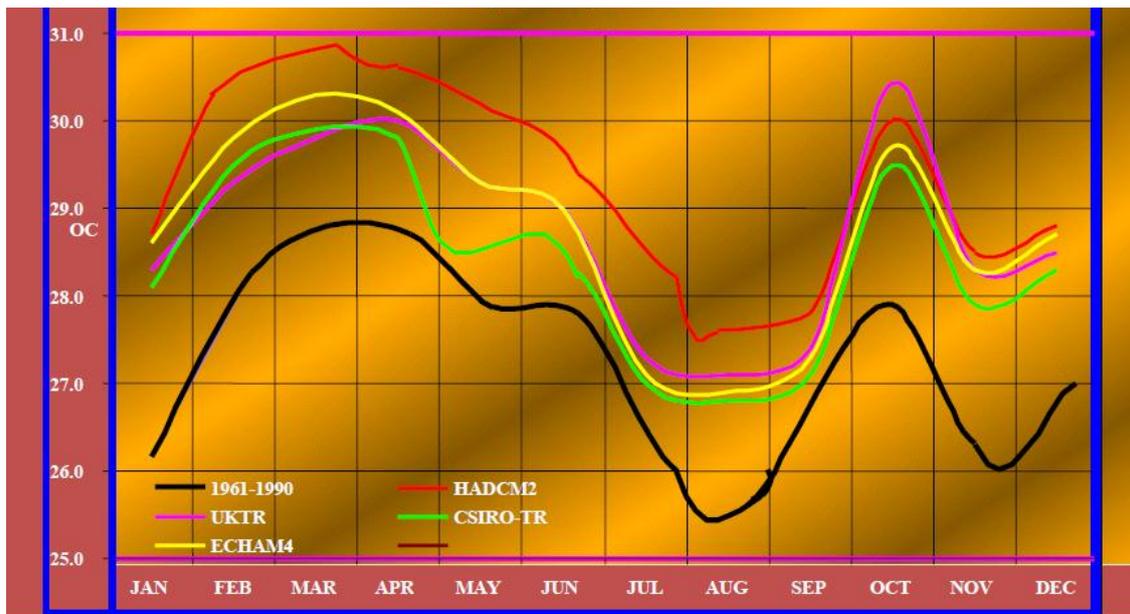
¹⁵ <http://en.wikipedia.org/wiki/HadCM3>

¹⁶ <http://en.wikipedia.org/wiki/ECHAM>

¹⁷ <http://www.cgd.ucar.edu/cas/wigley/magicc/about.html>

The collateral impacts of rising sea levels on the coastal zone will include shoreline recession, increased flood frequency probabilities, inundation of coastal lands and wetlands, and the salinization of surface waters and ground-waters. These impacts will in turn affect coastal habitats and biodiversity. In Sierra Leone, the retreat of the shoreline will result in significant loss of the mangroves of the Kambia district and elsewhere, strand vegetation, coastal swamps and the habitat of marine biodiversity (turtles, snails etc). The species of mangrove vegetation of risk from flooding and shoreline retreat includes *Conocarpus Erectus*.

Figure 2: Current temperatures in Sierra Leone (1961-2010) and projected temperature scenarios at 2120 using different climate change models



Source: Republic of Sierra Leone, UNDP/GEF: Second National Communication On Climate Change, 2012

The most vulnerable wetlands are those of the Kambia district and areas of the Western area (Freetown) i.e. Aberdeen creek which is one of the Ramsar sites in Sierra Leone. The loss of beach will adversely affect the survival of intertidal organisms and those that make use of the sandy beaches at some stage of their life cycle e.g. the semi-terrestrial ghost crabs, ocyпода cursor and *O. Africana*. The marine turtles that could be impacted on are the leather back (*Dermochelys Coiacea*), the hawsbill (*Erectmochelys Imbricata*), green turtle (*Chelonia Myda*), the loggerhead (*Caretta Carretta*) and the most abundant of all, olive ridley (*Lepidochelys Olivacea*).

Climate change is also likely to impact on fisheries and marine life by affecting the boundaries of ecosystems and the mix of species that inhabit them. This will have major implications for human activities particularly in fisheries and coastal formations such as mangroves and coral. It is also evident that water resources will be affected by climate change. The projected increase in temperature will increase the amount and intensity of precipitation. An increase in rainfall could lead to an increase in surface runoff, resulting in flooding. On the other hand a decrease in the amount and intensity of rainfall may lead to drought.

Biodiversity¹⁸

The current status of biological diversity

Ocean, freshwater, brackish water, coastal beaches (rocky, sandy and muddy), wetlands (mangrove swamps) inland valley swamps, bolilands) savannah woodlands and tropical rain forests characterize

¹⁸ Based on NBSAP, 2003

the diversity of ecosystems at the disposal of a little more than 5 million people. About 15,000 plants species have been identified in Sierra Leone. There are an estimated 5,250 species of useful plants¹⁹.

The country has 295,950 ha of forest, game reserves and national parks and 32,000 ha of community forest. There are two types of forests in Sierra Leone: Tropical moist evergreen forest and moist semi-deciduous forest. These can be further divided into mountain and lowland types. The tropical evergreen occurs where relative humidity is high, annual rainfall is greater than 2,500mm and the dry seasons are not longer than 3 months.

The Gola Forest Reserve is predominantly lowland tropical moist evergreen rain forest with small areas of moist semi-deciduous forest. The moist semi-deciduous forest has less total rainfall, 2000-2500mm annually with a four to five months long dry season. There are more deciduous trees (shedding leaves annually) but the total diversity of plants is less than in the tropical moist evergreen forest. The Loma Mountains, Tingi Hills and Tama Tonkolili forest Reserve all have moist semi-deciduous forests.

Widely spaced trees and tall grasses characterize savannah woodlands²⁰. These trees are fire resistant that grows only 7 to 9 m. high. The abundant elephant grass can grow as high as 3 to 4 m. The open savannah woodland supports a more limited variety of wildlife than the forest. Common trees in the savannah woodlands are Lophira, Locust bean (*Parha Biglobosa*) and cow foot (*Piliostigma Thennigir*). There are several types of grasses and sedges, the most obvious being the elephant grass. Termite mounds dot the savannah. The bush pigs (*Red Ricer Hog*), bush cat, and leopards are also found in the savannah grasslands of Sierra Leone. Millipedes, snails, earthworms, millions of termites, army ants, many species of insects form an integral part of the biological diversity.

Bolilands are depressions in the drainage areas of large rivers that flood in the rainy season, and by March are dry grasslands again. These areas provide fine grazing for buffalo because the soil is too moist for coarse elephant grass. Migratory waterfowl are attracted to the boli when the water regime begins to recede in December. The flooding and drying of the soil offers a wonderful environment for the tiny invertebrates, snails, and worms that the birds eat. However, boli- lands are also attractive for rice cultivation. Wildlife and people thus compete for these areas.

With its high rainfall, Sierra Leone has an extensive system of rivers and swamps. A variety of mammals, birds and reptiles are found in the water, on the rocks and sandy beaches or on the trees along the riverbanks. Rivers that periodically flood and dry in the rains and dries respectively have a variety of migratory bird species that nest on the exposed rocks and sandbanks. The palm nut vulture and the West African fish eagles are birds commonly seen perched on tree sandbars. Hippopotamus, Otters (river dogs), Crocodiles and Nile monitor Lizards are common riverine species in Sierra Leone.

An estimated 200,000 to 300,000 ha of mangrove swamps fringes the coastline of Sierra Leone. Mangroves are restricted mostly to the four main estuaries (Scarcies, Rokel, Yawri Bay and Sherbro Rivers) that fringe the coastline of Sierra Leone. The mangroves of Sierra Leone have been studied mostly as a resource rather than a place of extreme biological diversity. The mangroves are dominated by five species (*Rhizophora Racemasa*, *R. Harrisoni*, *R. Mangle*, *Languncularia Racemosa* and *Avicennia Nitida*). Intermingled among the mangroves may be other species of plants

¹⁹ Jusu, M.S. and Bangura, M.A.T. (2002) Assessment of Agro-Biodiversity Genetic Resources and Losses in Sierra Leone. BSAP. UNDP 43p.

²⁰ Gordon, O.L.A., G. Kater and D.G. Schwaai (1974) Vegetation and Land Use in Sierra Leone, UNDP/FAO Technical Report No. 2 AG:DP/SIL/73/002

including *Paspalum Vaginatam*, *Sesuvium Portulacastrum* and *Philoxerns Vermincularis*. *Rhizophora sp* often inhabit the sea front whilst *Avicennia* and *Languncularia* are found landwards.

The continental shelf is about 125 km wide in the North around Yelibuya and tapers to only 13-km at Sulima in the South. The Coastline itself is about 560 km long and the shelf covers an area (up to 200m depth) of 50,000 km². The Exclusive Economic Zone (EEZ) is 155,700 km². The shoreline consists of a Western and Eastern part. The Western part has four large estuarine systems separated by rocky and sandy coastlines and the Eastern part consisting of about 280 km of almost unbroken steep sandy coast backed with swamp communities.

Detailed study on coastal and marine biological diversity²¹ recorded 5 genera of *Dinoflogellates*, 14 genera of diatoms; 2 genera of *Chlorophyta*. Twenty-six species of copepods have been recorded. There were also 1 species of *Ostracoda*, 2 species of *Cladocera*, 4 species of *Mysidacea*, 5 species of *Camacea*, 2 species of *ISOPODA*, 10 species of *Amphipoda*, 2 species of *Decapoda*, 9 species of *Chaetognatha*, 3 species of *Protochordata*, 2 species of *Pteropods* and 2 species of *Coelenterate*.

Other studies have recorded 9 genera of *copepods*, 4 genera of *Chaetognatha*; 1 genus of *Euphausiid*, Miscellaneous including *Cladocerans*, *Codonterates*, *Polychaots Isopods*, *Ostracopods*, *Heteropods* and *Protozoans*. *Diatoms* usually dominate the plankton samples with *Dionphyceae* and *Cyanophyceae* being abundant during the dry season. Copepods are usually the dominant *Zooplankton* category throughout the year. In 1996 IMBO recorded 30 species of bivalves and 62 species of gastropods²².

Fish stocks of Sierra Leone are the most diverse along the West Coast of Africa. Marine and coastal fish stocks of Sierra Leone can be classified into two broad categories based on the biology and physico-Chemical parameters of the environment. About 213 species of pelagic and demersal fish stocks have been recorded so far. The stocks can be classified into 3 categories from both biological and management point of view, namely; pelagic, Demersal and Shellfish (crustacea and Molluscs).

Pelagic fish stocks consist of the true pelagic and a largely loose category often referred to as semi-pelagic. The Demersal fish stocks can be classified into four categories: (i) *Sciaenid* fauna, (ii) *Sparid* fauna, (iii) Deep shelf community and (iv) Continental slope. Forde (1978) noted that soviet trawlers caught some 243 species of fish in 1976. FAO (1990) recorded 237 species of fish for the West African region belonging to 108 different families. The contribution of various categories of fish stocks over the year are close to estimates provided by Coutin (1989) as follows: small pelagics (43 to 55%); demersals (30-40%), large pelagics (3%) and shrimps (2%). The total biomass is estimated at between 300,000 and 700,000 mt.

Trends - the major threats to biodiversity in Sierra Leone

Trends in threats of resource use in Sierra Leone over the years have depended on the specific historical conditions that have existed over the years. The status on threatened animal species indicates that there are 761 species of mammals and birds. Of the bird species, six are threatened with extinction. There are 15 primates, all of which are either endangered or vulnerable. Of the 18 antelopes, two are extinct and the 16 are threatened. Other mammals like elephant and hippos have been drastically reduced. Of the birds, six are threatened.

²¹ Ndomahina, E.T. (2002) An Assessment of the Coastal and Marine Biodiversity of Sierra Leone, Consultancy of the Sierra Leone Maritime Administration. 100p.

²² Institute of Marine Biology and Oceanography, (IMBO), University of Sierra Leone (1996) Report on Environmental Baseline Studies Undertaken during Debeers Marine Diamond Prospecting in Sierra Leone Bull. Mar. Biol & Oceanogr.(Special Edition) 8p.

Biological diversity in Sierra Leone is faced with diverse threats including; logging for timber; fuel wood, charcoal and poles extraction, trade in bush meat and pets; slash-and-burn agriculture; mineral exploitation, civil conflict, over-fishing of marine resources; ill conceived policies, conflicting mandates and poverty. Poverty is of the biggest indirect threat to biological diversity in Sierra Leone. The majority of the population depends to a large extent on natural resources for their livelihood, which are often over exploited. High demand coupled with unsustainable practices of exploitation and utilization continues to place pressure on the natural resource base impacting negatively on biological diversity.

International Waters

Sixty-four large marine ecosystems (LMEs) have been delineated globally. They are defined by their distinctive bathymetry, hydrography, chemistry, and tropho-dynamics. Sierra Leone is in the Guinea Current Large Marine Ecosystem (GCLME) which stretches from Guinea Bissau at the southern end of the Canary Current down to northern Angola, the seasonal limit of the Benguela Oceanographic Current. The LME includes the drainage basins of major rivers such as the Niger and Volta and extends seaward to the (variable) front delimiting the Guinea Current from open ocean waters.

The Guinea Current Large Marine Ecosystem (GCLME) is ranked among the most productive coastal and offshore waters of the world with rich fishery resources, oil and gas reserves, precious minerals, a high potential for tourism and an important reservoir of marine biological diversity of global significance.

Ozone Depleting Substances (ODS)

Table 3: presents data on the level of ODS consumption in Sierra Leone which shows that only HCFCs are a problem as far as the production and consumption of ODS is concerned. HCFC-22 is used solely for servicing refrigeration equipment, consisting of 55,000 split/ window air-conditioners; 16,000 cold rooms used in the food processing enterprises, ice making plants and central air conditioning systems used in a few Government and private institutions; and 1,000 refrigerated transport units.

Table 3: Ozone Depleting Substances (ODS) Consumption Levels in Sierra Leone (ODP tons)

Annex	Group	Name	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Baseline (1998-2000)
A	I	CFCs	92.9	80.8	66.3	64.5	26.2	18.2	10.4	4.2	6.1	0.0	78.6
A	II	Halons	9.0	0.0	15.0	18.5	0.0	0.0	0.0	0.0	0.0	0.0	16.0
B	I	Other Fully Halogenated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B	II	Carbon Tetrachloride	0.7	0.2	0.1	2.4	0.0	0.0	0.1	0.2	0.1	0.0	2.6
B	III	Methyl Chloroform	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	I	HCFCs	1.9	2.2	2.0	1.6	1.0	1.4	1.5	1.4	1.5	1.8	1.7
C	II	HBFCs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	III	Bromochloromethane		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	I	Methyl Bromide	1.2	1.2	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	2.6

Source: Personal communications, V. H. O. Sawyerr, Ozone Officer, Environmental Protection Agency, Freetown, Sierra Leone

Note: "Calculated Levels of Consumption" means production plus imports minus exports of controlled substances (paragraph 6 of Article 1). However, any export of controlled substances to non-Parties is not subtracted in calculating the consumption level of the exporting Party (paragraph (c) of Article 3).

Persistent Organic Pollutants (POPs) ²³

None of the original twelve POP chemicals have been manufactured in Sierra Leone. Importation of POP pesticides and application equipment is undertaken by commercial organizations. In the past POP pesticides such as DDT and Dieldrin were used across the country. However, the only POP pesticide still in use in the country is HCB. But some quantities of obsolete pesticides e.g. Kocide 101 are still in stock due to lack of proper disposal facilities.

According to the current estimations, there are no significant stockpiles of PCBs in Sierra Leone. PCBs enter the country through imported electrical appliances, hydraulic oils, impregnators, etc. The National Power Authority (NPA) and the Bo-Kenema Power Services (BKPS) are the major providers of electricity nationwide and the major owners of transformers. It has been estimated that nearly three-fourths of the transformers in Sierra Leone contain more than 500ppm PCB levels while the remaining quarter have no PCBs.

Table 4: shows the estimation of UPOPs in Sierra Leone. The major releases are into the air (646g) and into residues (588g). Countrywide surveys, with the aim of identifying possible contamination sites and determining the levels of contamination, revealed no sites contaminated with POP pesticides. Two thermal power stations and a privately owned used oil refinery were identified with potential PCB contamination. Also, two municipal waste dump sites, sites where hospitals disposed of medical wastes by open burning, were identified as posing health and environmental treats because of their locations.

Table 4: Estimated releases of POPs in Sierra Leone

No.	Main Source Categories	Annual Releases (g TEQ/a)			
		Air	Water	Land	Residue
1	Waste Incineration	2.0			0.01
2	Ferrous and Non-Ferrous Metal Production				
3	Power Generation and Heating	6.88			
4	Mineral Production	0.274			
5	Transport	0.008			
6	Uncontrolled Combustion Processes	637		8.00	588
7	Production and Use of Chemicals and Consumer Goods (incl. gas flaring from oil production)				
8.	Miscellaneous	0.00018			
9.	Disposal/Landfill		0.09		
10	Potential Hot Spots	-	-	-	-
1-9	Total	646.16	0.09	8.00	588.01

Source: NIP, Table 9

Land Degradation

The principal direct causes of land degradation in Sierra Leone are the unsustainable use of forest resources; unsustainable agricultural practices, especially those resulting in soil fertility loss and

²³ Republic Of Sierra Leone (2008), National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs), Ministry of Lands, Country Planning and the Environment, United Nations Industrial Development Organization (UNIDO).

decline in crop yields on upland rainfed sites; wildfires on farm fallows and wooded savannas; deforestation from clearing for agriculture; and mining.²⁴

Unsustainable use of forest resources: This refers to forest over-cutting for saw timber, wood fuels (firewood and charcoal) and other forest products. The unsustainable use of forest resources leads to the replacement of high value species by low value species, loss of productive potential and the degradation of ecosystem integrity and function.

Unsustainable agricultural practices: Currently upland, rainfed agriculture is practiced in an unsustainable manner in Sierra Leone. This particularly refers to the slash-and-burn agriculture which is the traditional, upland, rainfed farming system in most parts of the country. It involves the conversion of forest and woodlands into croplands.

Wildfires on wooded savannas and farm fallows: Wildfires are another major direct cause of land degradation in Sierra Leone because there is always a huge amount of highly combustible grass fuels on savannas and fallows and these areas burn very frequently during the dry season.

Mining: Mining has severe impacts on the land through the loss of vegetation, soil erosion and contamination of water sources. Surface water pollution in the form of suspended matter caused by runoff from earthmoving and other mining activities is significant.

2.5 COUNTRY ENVIRONMENTAL POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

Table 5 contains a summary of the most important national environmental legislation of Sierra Leone, with year of approval.

Table 5: Summary of National Environmental Legislation

Legislation, Policy or Plan	Year
Cross-cutting and Multi-focal	
Constitution	1991
Environment Protection Act (EPA)	2000
National Environmental Policy (NEP)	1994
National Environmental Action Plan (NEAP)	1994
Environment Protection Agency Act (NEPA)	2008
Biodiversity	
Provinces Land Act, Cap 122	1960
Wildlife Conservation Act (and Amendment)	1972 (1990)
Forestry Ordinance, Cap 189	1960
Forestry Act (and Regulations)	1988 (1990)
National Forestry Policy	2004
Forestry and Wildlife Sector Policy (draft)	2003
Climate Change	
Energy Policy and Strategic Plan	2009
Mines and Minerals Act	2009
International Waters	
Fisheries Management and Development Act (and Amendment)	1994 (2007)
Fisheries Regulations	2006

²⁴ From SLM Project Document "Capacity Building for Sustainable Land Management in Sierra Leone", GEF ID 3510, (GEF-LDCs-SIDS).

Fisheries Decree	1994
Land Degradation	
National Land Policy	2004
Ozone Depleting Substances	
ODS Regulations (and Revision)	2008 (2011)

The Environmental Policy and Legislative Framework

Biodiversity Legislation

Legislation relating to biological resources has traditionally been split amongst a number of statutes, many of them covering other materials with little to do with the area of conservation. However, this has changed as the international concern and the political importance for the conservation of natural resources has gained momentum. In Sierra Leone, this has been substantiated by the enactment of the Environment Protection Act of 2000 in which an attempt was made to make provision for the effective protection of the environment and the institutional and administrative machinery for its implementation. This has been updated by the National Environment Protection Act (NEPA) of 2008.

Legislation dealing with biological diversity, all of which, except for the NEPA, were enacted before the intervention of GEF in Sierra Leone, can be classified under three categories.

- a. Laws dealing with Agro-biological diversity;
- b. Laws dealing with Forestry Biological diversity; and
- c. Laws dealing with coastal and marine Biological diversity

The Provinces Land Act Cap 122 of the Laws of Sierra Leone 1960 on Land Tenure, the Wildlife Act of 1972, the Forestry Act of 1988, and the Fisheries Management and Development Act of 1996 form the current basis for the conservation of biological diversity in Sierra Leone. Some of the provisions of these legislations are insufficient, obsolete and above all, the institutions set up to implement the legislation lack manpower capacity to effectively implement the provisions contained therein.

(a) Agro-Biological Diversity legislation: There are several piecemeal legislations on Agriculture but notable amongst them is the one enacted in 1946, captioned “An Ordinance for the control and Preservation of Agricultural Produce”. Shortly after the enactment of this legislation several rules and regulations were promulgated to fulfil the legislation’s intended purpose. These rules include: the Plant Pests Import Rule; Plant Pests Inspection of Crop Rules; Movement of Rice Restriction Rules; Noxious Weed Control Rules; Cocoa Movement Control Rules; and the Locusts Destruction Rules. Apparently this ordinance and its related rules were enacted primarily for the control and preservation of agricultural produce with very little or no provision for the conservation of agricultural lands. In 1960, this ordinance and its piecemeal regulations were embedded in cap 185 and incorporated into the laws of Sierra Leone in 1960. This ordinance empowered the Governor to make rules for the effective control and preservation of Agricultural produce subject to the approval of Parliament. The Director of Agriculture was the Titular head of the Department of Agriculture for the implementation of these regulations. This ordinance remained in force until enactment of the 1974 and 1975 produce Inspection Rules and the Plant Phyto-sanitary Import Rules respectively. These latter legislations made minor amendments regarding the nomenclature and designation of officials, licenses for and penalty provisions of Cap 185. In spite of these minor amendments Cap 185 is still regarded as the substantive law governing the control and preservation of agricultural produce in Sierra Leone.

(b) Forest Biological Diversity legislation: The second categories of legislations dealing with biological diversity in Sierra Leone are those relating to forestry and wildlife conservation. The relevant legislation in this respect is the Forestry Ordinance Cap 189 of the laws of Sierra Leone in

1960. This legislation consolidated the 1942, 1946 and 1955 forestry rules. Under this legislation the Chief Conservator of Forests was entrusted with the task of forest management to be assisted in the exercise of his functions by the tribal authority of the respective chiefdoms in which the forest reserves are situated. This legislation established 42 forest reserves throughout the country. Laws relating to Bush fire prevention were also enacted in 1932 and the provisions contained therein are now incorporated in Cap 190 of the laws of Sierra Leone 1960. The Wild Animals Birds and fish preservation legislations were also enacted and are now incorporated in Cap 194 of the laws of Sierra Leone 1960. Cap 194 made provisions for the prohibition of hunting in protected forests except with a valid license; it further requires holders of licenses to observe native rights and to deposit security in order to ensure compliance with the dictates of the license. The legislation entrusted the Director of Forestry together with other officials of the Forestry Department with the task of preserving the forest reserves. Cap 194 also contains mandatory provisions prohibiting the exportation of wild animals from Sierra Leone except through the port of Freetown.

This was the state of the law on Forest biological diversity until the wildlife Conservation Act of 1972 was enacted. The title of this legislation states “Being an Act to make further and better Provisions for the control of Fauna and flora of Sierra Leone and to give effect to the International Convention Relating to the Protection of Fauna and Flora in such natural state-1953” as amended by the International Convention for the Protection of Fauna and Flora of Africa of 1953. This legislation established significant provisions for the conservation of wildlife ranging from the constitution of strict nature reserves, national Parks, and prohibition of hunting of animals generally, except with a valid License and/or permit. The Act also contains enforcement and penalty provisions. This legislation marked a tremendous development for the conservation of wildlife in Sierra Leone and it is the current law on the conservation of wildlife in the country.

Like the Wildlife Conservation Act of 1972, the Forestry Act of 1988 and its Regulations for 1990 also made significant provisions for the conservation of Forest biological diversity. The title of this legislation states “Being an Act to make new provisions in the Law relating to forestry in Sierra Leone and for connected purposes. This legislation established provisions ranging from the administration and management of the Forest Reserves, community forests, national parks, licenses fees and enforcement provisions.

In 1990, the Wildlife Conservation (Amendment) Act was passed. It was captioned “Being an Act to Amend the Wildlife Conservation Act of 1972”. The amendment merely relates to definition of terms, modifications and qualifications. For instance section 25 of the Wildlife Act of 1972 prohibits hunting of elephants in prohibited forest reserves only whereas section 7 of the wildlife (Amendment) Act of 1990 prohibits hunting elephants in any forests, protected areas or National parks without the written permission of the Chief Conservator. Further the 1990 wildlife (Amendment) Act provided for the change of name from the Forestry Department to the Forestry Division. Despite these minor amendments, the 1972 wildlife Conservation Act and the Forestry Act of 1988 are still regarded as the substantive legislations on forest biological diversity in Sierra Leone.

(c) Coastal and Marine Biological Diversity legislation: Legislation dealing with Fisheries and fishing Industries abound but the notable and earliest amongst them was enacted in 1932 known and styled as the “Fisheries Control and Preservation Act of 1932”. Now incorporated in Cap 195 of the laws of Sierra Leone 1960 the provisions in this legislation include the requisite licenses fees for motor fishing vessels, prohibition on the use of certain trawl net, provision relating to prohibited areas of fishing, measurement of the baseline and enforcement provisions. It is worth noting that Cap 195 was the prevailing law on the control and preservation of Fisheries from its inception until 1988. With the passage of time this legislation became obsolete and the need was felt for a new legislation to rid it of its anachronisms and obsolescence. This eventually led to the enactment of the Fisheries Management and Development Act of 1988 and the Fisheries regulation of 1990. This legislation and

its subsequent regulations to a large extent made a partial improvement on the conservation of marine resources.

The major drawback of the 1988 Fisheries Act was that it had very little or no specific conservation provisions. This resulted to the enactment of the Fisheries Amendment Act of 1990. This latter legislation was short lived as it was annulled by the National Provisional Ruling Council and replaced by Decree No. 19 of 1994. The title of this decree states “Being a Decree to make better Provisions for the Management, Planning and Development of the Fisheries and Fishing Industry” by laying down provisions for the conservation of marine resources. Section 4 of this decree empowers the Secretary of State (Minister) for Marine Resources to carry out the preparation and implementation of additional policy geared towards the general improvement of fisheries and fishing industry of Sierra Leone”. Under this decree the Director of Fisheries in consultation with the relevant Government Officials and/or representatives from the Fisheries section formulate and develop policy recommendations for the Secretary of State (Minister) Marine Resources to be translated into law. The 1994 Decree further established sufficient provisions for the conservation of Marine Resources ranging from specific conservation provisions, monitoring, control and surveillance provisions and also provisions relating to enforcement.

Intervention of GEF: In fulfilling Sierra Leone’s obligation under the CBD, the GoSL has prepared the National Biodiversity Strategy and Action Plan (NBSAP) with GEF support (GEF ID 1289) which outlines biodiversity conservation strategies in two broad categories: sectoral strategies (which cover wildlife, forests, biological diversity, agricultural biological diversity, inland water biological diversity and marine and coastal biological diversity); and cross-sectoral strategies (policy, legislation, capacity building, public participation, planning, monitoring, sustainable use principles, incentive opportunities, research and training, public education, impact assessment, access to technology, information exchange, benefit distribution, indigenous knowledge and financial resources).

Sustainable Land Management Legislation

Important legislative actions related to sustainable land and natural resource management in Sierra Leone are the National Environmental Policy (2002), the National Environmental Action Plan (2002), the National Land Policy of (2004) all of which were prepared with support of the World Bank, and the Energy Policy, and the Mines and Minerals Act.²⁵

The **National Environmental Policy (NEP) 2002** is the background document for environmental management efforts in the country. It defines the general principles and approaches that should be adopted by any sector of government, the private sector or individual that is undertaking any activity that may affect the environment. In relation to sustainable land management, the NEP sets out the objective to achieve sustainable development in Sierra Leone through sound environmental management of land. The overall goal has a strong orientation towards sustainable land management (SLM). It is to use available land in such a way that its quality is conserved so as to enhance its potential for continuous productivity and to prevent degradation.

The NEP objectives include encouragement for the adoption of a land tenure system that ensures security of tenure with a view to promoting the conservation of agricultural and forest land; to improve the traditional system of shifting cultivation and encourage alternative farming systems; to re-organize traditional grazing systems so as to limit environmental degradation from over-grazing, to establish irrigation schemes which significantly reduce salinization and acidification; to regulate agriculture mechanization in order to reduce soil erosion; to developing sustainable agro-forestry techniques for use by farmers in the rural areas and to encourage soil improvement measures.

²⁵ From “Capacity Building for Sustainable Land Management in Sierra Leone”, GEF ID 3510, (GEF-LDCs-SIDS).

The **National Environmental Action Plan (NEAP)** of 2002 offers concrete actions for integrating environmental issues into development planning. It consists of a series of reports and recommendations on natural resources management, urban management, gender and the environment, and environmental information, education and training. It ranks categories of environmental interventions, prioritizes environmental problems and ranks the actions according to their contributions to sustainable development. The NEAP lays emphasis on tenure arrangements as they affect the sustainable management of land. It maintains that tenure security is perhaps the single most important incentive to prudent management of land resources. It sees insecurity of tenure as resulting in abuses and/or misuses of land. The issue of conservation is linked to the duration of tenure. Tree and soil conservation require that the custodians of lands have an incentive to invest in long-term future; to plant trees; to build terraces where needed and conserve water demand sacrificed today so that benefits will be yielded in the future

The **National Land Policy (NLP)** introduced in 2004 ensures “the judicious use of the nation’s land and its natural resources by all sections of the Sierra Leone society”. So the policy framework ensures “equal opportunity of access to land and security of the people in order to maintain a stable environment for the country’s sustainable social and economic development”. Two of the policy statements intended to guide the implementations of the land policy within the domain of SLM include: “ensuring sustainable land use and enhancing land capacity and land conservation”. Because of the sensitivity of the land issues, there has been a slow progress in the implementation of the NLP.

The **Energy Policy**. The main policy goal of the policy is “*to meet the energy needs of the Sierra Leone population by establishing efficient energy production...and end user systems in order to contribute to social and economic development in an environmentally sustainable manner*”. In Sierra Leone, the unsustainable harvest of wood fuels from forest areas is a major contributing factor locally to deforestation. The strategic directions to household energy include measures that will obviate the need for wasteful use of land to reduce the pressure on scarce forest resources; measures that focus on reforestation, awareness raising campaigns to improve environmentally friendly production and domestic utilization of technology.

The **Mines and Minerals Act** demonstrates a significant awareness that mining activities adversely affects the environment and recognizes the need for mitigating actions to redress degradation caused by mining. Mining activities undertaken by large mining companies are a major cause of deforestation and land degradation through loss of forest cover of large areas, soil erosion, siltation and contamination of river systems and tidal creeks and displacements of villages. Heavy siltation of river beds and tidal creeks reduce coastal coral and fish populations. Small scale or artisanal mining of diamonds and gold in the east and northern parts of the county is also a major cause of loss of forest cover of large areas and land degradation. The Act requires the rehabilitation of mined over lands. A special fund, the Consolidated Fund has been set up by government from fees and taxes imposed on mine operators for the reclamation of mine spoils.

Interventions of GEF: The GEF co-funded the UNDP executed Sustainable Land Management (SLM) project, ‘Capacity Building for Sustainable Land Management in Sierra Leone’ (GEF ID 3510), which had legislative reforms in its projected Outcomes and Outputs as follows:

- Outcome 2.1 - Sustainable Land Management is mainstreamed into policies, laws, programs, budgets and regulatory frameworks. The main outputs under this component relate to a) defining the legal and/or regulatory framework for participatory SLM systems for mangroves, wooded savannas, woodlots and fallows including participatory fire management of fallows as appropriate, and b) the integration of SLM/participatory forest management into university curricula. The finalization of the NAP will provide inputs for needed reforms. Policy, budgetary and procedural mainstreaming will secure internal funding allocations to the SLM.

- Output 2.2 Community-based forest and fire management laws and regulations developed. Near the mid-point of the project, and based on the project field experience, proposed changes to the legal and regulatory framework for participatory forest and fire management will be submitted to the GoSL to provide a strong basis for the widespread replication of community-based forest and fire management.

However, as indicated in the ROtI in Volume 2, neither Outcome 2.1 nor Output 2.2 was achieved by the end of the project in December 2012.

Legislation on Persistent Organic Pollutants (POPs)

Prior to the commencement of GEF interventions the legislation related to POPs in Sierra Leone is summarized in Table 6: below:

Table 6: Status of POPs listed in the Stockholm convention

Compound	Regulation/Status	Date of effect
Aldrin	Banned *	28 August 2000
Chlordane	Banned *	28 August 2000
DDT	Banned *	28 August 2000
Dieldrin	Banned *	28 August 2000
Endrin	Banned *	28 August 2000
Heptachlor	Banned *	28 August 2000
Mirex	Banned *	28 August 2000
Toxaphene	Banned *	28 August 2000
Hexachlorobenzene	Banned *	28 August 2000
PCBs	Banned *	28 August 2000
Dioxins and Furans	No inventories and measurements have been conducted.	

The bans were apparently approved by the Cabinet of Ministers of The Sierra Leone Government on 20 June 2000.²⁶ However, there is no evidence that the Cabinet Decision has been promulgated into Law. With GEF support the National Implementation Plan (NIP) was produced in 2008 (GEF ID 2486). As part of the NIP preparation process, UNIDO contracted the services of an environmental lawyer to assist Sierra Leone to draft a legislation that is specific to industrial and agricultural chemical to enable the country to implement the provisions of the Stockholm Convention. The Convention was acceded to on 26th September, 2003 and required the country to prepare a National Implementation Plan (NIP) to reduce or eliminate the use of POPs by 2025. The NIP Action Plan has a section on the Institutional policy and regulatory framework, which calls for enacting laws to govern POPs chemicals management. The law should provide for:

- The institutional and administrative arrangement of a National POPs Centre
- Harmonization of policies at sub-regional level to enhance regional inspection at entry points
- Development of a national monitoring plan for effective evaluation
- Domestication of the Stockholm Convention into the national legal instruments
- Capacity building

²⁶ From UNIDO Project Document; 'Enabling activities to facilitate early action on the implementation of the Stockholm Convention on Persistent Organic Pollutants (POPs) in Sierra Leone' (GEF ID 2486).

- POPs center (laboratory, equipment, logistics, etc.)
- Recruitment and training
- Financial resource mobilization (at national and international levels)
- Technical assistance provision under the MEAs

However, since the production of the NIP, no action seems to have been taken in promulgating any laws on POPs.

Legislation on Ozone Depleting Substances (ODS)

None of the GEF interventions in Sierra Leone relate to legislation on ODS since the GEF supports only countries with economies in transition (e.g. USSR) in terms of ODS. Sierra Leone is supported by the Multilateral Fund under the Montreal Protocol.

. Sierra Leone's ODS regulations were originally issued in 2008. A subsequent revision, incorporating further control measures on the phase-out of ODSs including HCFCs, came into force on 1 April 2011. The regulations control imports and exports of ODS and ODS-based equipment and provide for quota and licensing systems, and the registration and certification of all stakeholders including refrigeration service technicians and ODS importers. The regulations are implemented by *inter alia*, the Environment Protection Agency, the National Revenue Authority, the Standards Bureau, the Ministry of Agriculture, Forestry and Food Security, the Ministry of Trade and Industry, the Police Force, and the Refrigeration Engineers Technicians Association.

The Environmental Administrative Framework

Until recently, the key public institutions responsible for forestry and wildlife, biodiversity conservation and environmental protection and management were the Forestry and Environment Departments of the Ministries of Agriculture, Forestry and Food Security (MAFFS), Lands, Country Planning and Environment (MLCPE) and Fisheries and Marine Resources and Fisheries (MFMR). In 2005 however, the Government of Sierra Leone per an executive directive established a National Commission on Environment and Forestry (NaCEF) which took over the responsibilities overseen by the three Ministries mentioned above. NaCEF was executive in nature and mandated to provide policy advice and be involved in project implementation, environmental monitoring and priority setting. It has been replaced by the National Environmental Protection Agency (EPA).

The **National Environmental Protection Agency** was established by an Act of Parliament in 2008 amended in 2010, to provide for the effective protection of the environment and for other related matters. Its principal functions include, among others: advising the Minister of Lands and Environment on the formulation of policies on all aspects of the environment and in particular make recommendation for the protection of the environment; co-ordination of the activities of bodies concerned with the technical or practical aspects of the environment and serve as a channel of communication between such bodies and the Minister; co-ordination of the activities of such bodies as it considers appropriate for the purposes of controlling the generation, treatment, storage, transportation and disposal of industrial waste; and promoting effective planning in the management of the environment. EPA established a National Secretariat for Climate Change (NSCC) in 2012, to provide guidance and direction for the formulation of a national climate change policy and strategies in line with the country's PRSP, the National Agenda for prosperity. The Chief Executive of EPA is the GEF Political Focal Point (PFP) and one of its Program Directors is the Operational Focal Point (OFP).

Ministry of Agriculture, Forestry & Food Security is the main institution responsible for promoting development and for regulating the agricultural sector. It is mandated with the management of protected areas through the National Forestry Policy of 2004. The Forestry Division is responsible for executing provisions Forest Law for all State and some Chiefdom Forests. The Division is also mandated to encourage management planning in all forests, emphasizing agro-forestry, fuel wood

management, watershed protection, collection of baseline data on forest reserves and forest biodiversity, monitoring and protection of improved forests and bush fire control. The Wildlife Conservation Unit has the mandate to manage all the nations protected areas and implement the provisions of the Wildlife Conservation Act. The Land and Water Development Department has a mandate to create an enabling environment for increased food production through sustainable development and utilization of land and water resources.

Ministry of Lands, Country Planning and Environment (MLCPE) is the lead institution that was established to serve as the main body for the implementation of environmental policy, including the sustainable management of land resources in Sierra Leone. MLCPE is also in charge of overall land administration in the country. The overall policy objectives of the ministry include the enhancement of balanced land administration, use, planning management and development control. It also performs the general role of administration of real estate, territorial inventory (cadastre) and visualization geographical territorial information (geodesy and cartography).

Ministry of Transport and Aviation (Meteorology Department) is charged with three mutually exclusive functions: (a) ensure the safety and general welfare of citizens through the timely provision of Weather and Climatology Services; (b) collect and collate historical Meteorological and Climate data for record and Research proposals; (c) honor international obligations. Additional responsibilities were added which include: (a) Contributing to the socio-economic (including agricultural, marine, etc.) development of the country; (b) Ensuring maintenance of the quality of the nation's environment; (c) Carry out climate change related activities.

Ministry of Mineral Resources controls all mining activities with the recently established National Minerals Agency. It has developed a mining policy and legislation which make provision for the rehabilitation of mined out areas ensuring that prospecting, exploitation, mining and processing of mineral resources proceed in an environmentally sound manner

Sierra Leone Agricultural Research Institute (SLARI) was established by an Act of Parliament in 2007. SLARI is an independent agricultural institution with the responsibility to generate valuable technologies that can address the problems facing the farming, fishing, forestry and livestock sectors. SLARI has four core functions: (a) to conduct agricultural research; (b) to generate information and knowledge; (c) to strengthen capacity; (d) to promote advocacy. When fully operation, SLARI is planned to comprise eight research centers, including the Magbosi Land and Water Research Centre (MLWRC), charged with contributing to food security and wealth by enhancing long term productivity of land and water resources.

The private sector does not have the capacities for effective management of natural resources. These limitations within the private sector do not offer opportunities for either a wholesale outsourcing of management responsibilities or a public-private-partnering. Till recently no conscious efforts were made by Government to include the private sector in resource management except in licensed exploitations.

The **Universities** have an acceptable level of human and technical resources to assist in developing and managing effectively and on sustainable basis the natural resources of the country. The two main universities Fourah Bay and Njala run courses in agriculture, forestry, wildlife and fisheries management and environmental studies and research into various aspects relating to natural resources management. Lack of financial resources has been the limitation in how far they can engage.

International and local non-governmental organizations (NGOs) have committed resources to natural resources management in Sierra Leone and are actively involved in decision-making and policy formulation and implementation of programs towards wildlife protection and biodiversity conservation. Generally, capacity among local NGOs may be low as compared to their international counterparts, most of which work through local organizations. Prominent NGOs in the environment

and natural resource sector include the Environmental Foundation for Africa, Friends of the Earth Sierra Leone, the Conservation Society of Sierra Leone (a Birdlife International partner in Sierra Leone), Birdlife International, Conservation International and the Royal Society for the Protection of Birds (a Birdlife International partner in the UK). There is a dearth of information on the existence and capacity of community-based organizations in rural Sierra Leone.

The Global Environmental Dimension

Participation in International Treaties

The relationship between Sierra Leone and the global environment is largely defined and supported through its participation in a number of international and regional treaties, conventions and protocols, which are related to or environment and natural resources management. The country became a signatory to most of the Conventions before the commencement of GEF assistance in 1996, as in many cases, accession to the Conventions is a prerequisite for eligibility for GEF funding. The important international conventions include (see Figure 3: for dates of accession):²⁷

- Convention on the African Migratory locusts (1962);
- United Nations Convention on Biological Diversity (CBD);
- Convention on International Trade in endangered species of wild fauna and flora (CITES);
- Convention on Wetlands of International Importance (RAMSAR);
- Convention Covering the protection of the World cultural and Natural Heritage;
- United Nations Convention on the Law of the Sea (UNCLOS);
- United Nations Convention to Combat Desertification (UNCCD);
- United Nations framework convention on climate Change (UNFCCC)
- Vienna Convention for the Protection of the Ozone Layer;
- Montreal Protocol on substances that Deplete the Ozone Layer and the London Amendments;
- Stockholm Convention on Persistent Organic Pollutants;
- Abidjan Convention for co-operation in the protection and Development of the Marine and Coastal Environment of the West and Central African Region and its protocols;
- Bamako Convention on the Ban of the Import into Africa and the control of Trans-boundary Movement and Management within Africa of Hazardous Wastes (Signed 2003, but not yet ratified)

Relationship to GEF Support

Figure 3: shows the chronological relationship between GEF interventions and national policies and commitments to international conventions and agreements. Sierra Leone signed all the major International Conventions and protocols and most of the amendments before the commencement of GEF activity in the country. The country has yet to sign the Basel and Rotterdam Conventions

The ten year civil war between 1992-2002, disrupted most government programs, including GEF activities, so there was a break in activities between the signing of the United Nations Framework Convention on Climate Change (UNFCCC), United Nations Convention on Biodiversity (CBD) and the United Nations Convention to Combat Desertification (UNCCD) in 1995-1997, and signing of most of the other conventions and Protocols starting in late 2001.

²⁷ From NBSAP, pp 23-24

CHAPTER 3. THE GEF PORTFOLIO

3.1 THE PORTFOLIO OF NATIONAL PROJECTS

Sierra Leone participated in its first GEF funded project in 1998; a regional project. Implementation of national enabling activities started in 2001, at the end of the civil war. As shown in Table 7 the portfolio of national projects completed or under implementation is relatively small, amounting to a lifetime total of just over US\$ 13.6 million in GEF support. Six out of the 15 projects have been Enabling Activities (EAs). This is good for a relatively young GEF country, as the EAs set the stage for design of follow up MSPs and FSPs. However, as shown in Figure 4, EAs only account for a small proportion of GEF funding in the country due to their relatively small size compared to grants for medium and full size projects.

Most of the projects in Sierra Leone have been, and are programmed to be, in the Climate Change focal area. Nine out of the 15 projects are in climate change (Table 7:) and, as shown in Figure 5, funding allocated to climate change is around three times that allocated to the next largest focal area, biodiversity. This bias towards climate change is partly a reflection of the emphasis placed in the focal area by UNDP, which has implemented most of the GEF projects in Sierra Leone as well as the active interest shown in the area by local agencies, especially the University and the research institutes in the country. The bias of the GEF Agency towards the Climate Change focal area is evident from the fact that all the follow-up FSPs executed or under design by UNDP are in that area. Although UNDP also implemented the biodiversity EA, no follow-up projects are being developed by the Agency in that area. One positive feature of the portfolio in Sierra Leone is the amount of co-financing that has been obtained for the FSPs.

Table 7: National Projects

GEF ID	Agency	Focal Area	Type	Project Title	Status	GEF Support (US\$)	Co-financing (US\$)
296	UNDP	CC	EA	Enabling Sierra Leone to Prepare its First National Communication in Response to its Commitments to UNFCCC	Completed	309,000 (GET)	-
1289	UNDP	BD	EA	National Biodiversity Strategy and Action Plan, and Country Report to the COP	Completed	275,000 (GET)	-
2145	UNEP	MFA	EA	National Capacity Self-Assessment (NCSA) for Global Environmental Management	Completed	216,900 (GET)	16,000
2482	UNDP	CC	EA	Preparation of a National Programme of Action for Adaptation to Climate Change	Completed	200,000 (LDCF)	20,000
2486	UNIDO	POPs	EA	Enabling Activities to Facilitate Early Action on the Implementation of the Stockholm Convention on POPs in Sierra Leone	Completed	394,600 (GET)	-
2948	World Bank	BD	FSP	Biodiversity Conservation Project	Under Implementation	5,000,000 (GET)	18,800,000
3510	UNDP	LD	MSP	LDC/SIDS Portfolio Project: Capacity Building for Sustainable Land Management in Sierra Leone	Under Implementation	500,000 (GET)	442,000
3716	IFAD	CC	FSP	Integrating Adaptation to Climate Change into Agricultural Production and Food Security in Sierra Leone	Under Implementation	2,744,800 (LDCF)	8,626,000
3937	UNIDO	CC	FSP	SPWA-CC Promoting Mini Grids	Under	1,818,182	29,992,068

GEF ID	Agency	Focal Area	Type	Project Title	Status	GEF Support (US\$)	Co-financing (US\$)
				Based on Small Hydropower for Productive Uses in Sierra Leone	Implementation	(GET)	
4105	World Bank	BD	FSP	SPWA-BD Wetlands Conservation Project	Under Implementation	1,800,000 (GET)	3,380,000
4599	UNDP	CC	FSP	Building adaptive capacity to catalyze active public and private sector participation to manage the exposure and sensitivity of water supply services to climate change in Sierra Leone	Council Approved	3,010,000 (LDCF)	10,150,000
4840	UNDP	CC	FSP	Energy Efficient Production and Utilization of Charcoal through Innovative Technologies and Private Sector Involvement	Council Approved	1,818,182 (GET)	9,000,000
5006	UNDP	CC	FSP	Strengthening Climate Information and Early Warning Systems in Western and Central Africa for Climate Resilient Development and Adaptation to Climate Change - Sierra Leone	CEO Endorsed	4,100,000 (LDCF)	20,347,310
5209	AfDB	CC	FSP	Building Resilience to Climate Change in the Water and Sanitation Sector	Council Approved	4,200,000 (LDCF)	28,735,000
4498	UNEP	CC	FSP	GLOBAL PROJECT: Umbrella Programme for National Communication to the UNFCCC	Under Implementation	405,000 (GET)	30,000
					Totals	26,791,664	129,538,378

Note: GEF Support amount includes Project Grant and PPG/PDF amounts

Figure 4: Support to national projects by modality

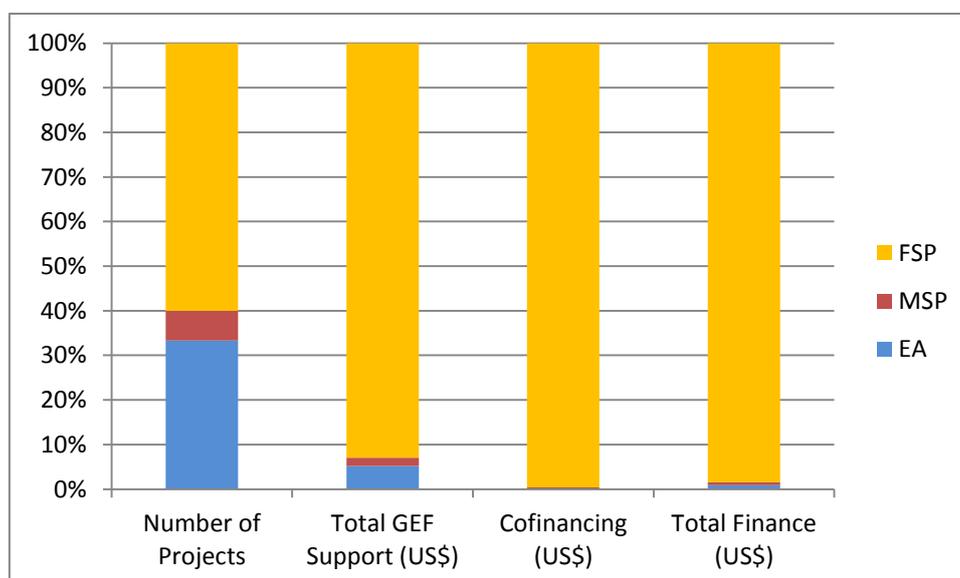
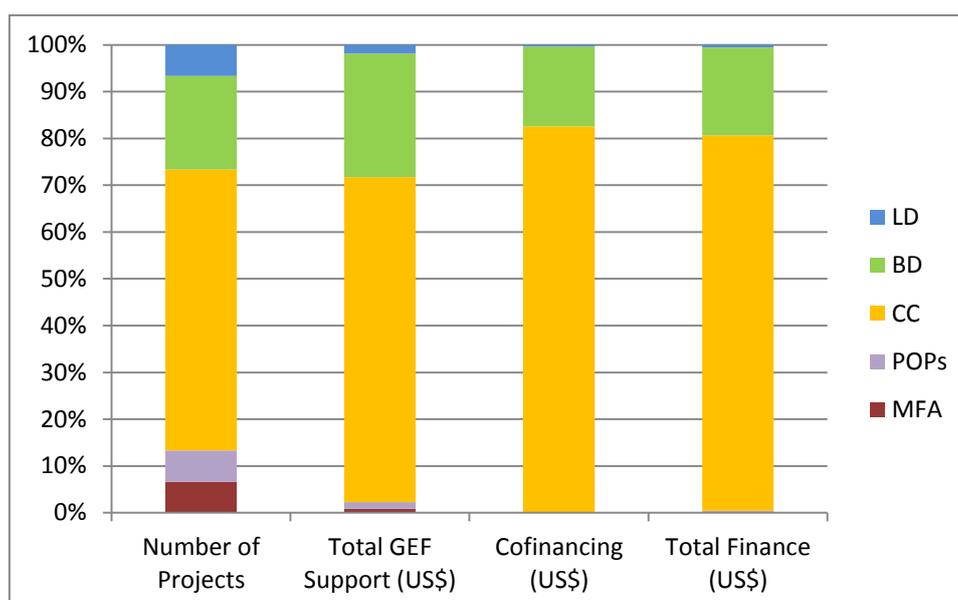


Figure 5: Support to national projects by Focal Area



Data presented in the Tables and Figures show that co-financing dwarfs the amount of GEF finance. This confirms that GEF activities in the country are having the desired effect of stimulating other investments in the GEF Focal Areas. Furthermore, it confirms that GEF enabling activities have been successful in laying the ground for follow up investments by other donors.

3.2 SIERRA LEONE'S PARTICIPATION IN REGIONAL AND GLOBAL PROJECTS

Sierra Leone has participated in several regional and global projects (Table 8: and Table 9:). It was by participation in regional projects that Sierra Leone first received GEF funding. Although several have been small national capacity development activities, they have been very important to the country, as participation in them has enabled the country to cover a wider range of focal areas, although the majority of projects are also in the Climate Change focal area.

Table 8: Regional Projects with components in Sierra Leone

GEF ID	Agency	Focal Area	Type	Name	Status	Total GEF Support (US\$)	Co-financing (US\$)
406	UNDP	BD	FSP	African NGO-Government Partnership for Sustainable Biodiversity Action	Project Closure	4,544,080 (GET)	7,117,000
536	UNDP	BD	MSP	Conservation Priority-Setting for the Upper Guinea Forest Ecosystems, West Africa	Project Closure	742,000 (GET)	207,000
1188	UNDP/ UNEP	IW	FSP	Combating Living Resource Depletion and Coastal Area Degradation in the Guinea Current LME through Ecosystem-based Regional Actions	Project Completion	21,449,184 (GET)	43,971,292

1431	UNEP	LD	FSP	Fouta Djallon Highlands Integrated Natural Resources Management Project (FDH-INRM) (Tranches 1 and 2)	Under Implementation	11,554,000 (GET)	33,000,000
3558	World Bank	IW	FSP	West Africa Regional Fisheries Program (WARFP)	Under Implementation	10,000,000 (GET)	46,000,000
3781	UNEP	BD	FSP	Evolution of PA systems with regard to climate change in the West Africa Region	Under Implementation	3,636,363 (GET)	12,119,471
3785	WB/UNDP, UNEP, FAO	BD	FSP	SPWA-BD: GEF Program in West Africa: Sub-component on Biodiversity	Council Approved	39,520,000 (GET)	23,660,000
3789	UNIDO	CC	FSP	SPWA-CC: GEF Strategic Program for West Africa: Energy Component (PROGRAM)	Council Approved	46,000,000 (GET)	100,000,000
3969	UNEP/UNIDO	POPs	FSP	AFLDC: Capacity Strengthening and Technical Assistance for the Implementation of Stockholm Convention National Implementation Plans (NIPs) in African Least Developed Countries (LDCs) of the ECOWAS Sub-region	Under Implementation	8,400,000 (GET)	11,631,703
4178	UNIDO	CC	MSP	SPWA-CC Promoting Coherence, Integration and Knowledge Management under Energy Component of SPWA	Under Implementation	700,000 (GET)	790,000
4953	AfDB	MFA	FSP	Mano River Union Ecosystem Conservation and International Water Resources Management (IWRM) Project	Council Approved	6,586,364 (GET)	25,000,000
					TOTAL	153,131,991	303,496,466

Table 9: Global Projects with components in Sierra Leone.

GEF ID	Agency	Focal Area	Type	Name	Status	GEF Grant (US\$)	Co-financing (US\$)
4498	UNEP	CC	FSP	Umbrella Programme for National Communication to the UNFCCC (Also see national projects)	Under Implementation	11,330,000 (GET)	2,013,500
4623	UNEP	BD	FSP	Support to GEF Eligible Parties (LDCs & SIDs) for the Revision of the NBSAPs and Development of Fifth National Report to the CBD - Phase II	Under Implementation	6,118,200 (GET)	5,513,637
4678	UNDP	MFA	FSP	GEF SGP Fifth Operational Phase - Implementing the Program Using STAR Resources II	CEO Endorsed	72,851,267 (GET)	75,766,000
4829	UNEP	LD	FSP	Support to GEF Eligible Parties for Alignment of National Action Programs and Reporting Process under UNCCD	Under Implementation	2,830,000 (GET)	2,750,000
					TOTAL	93,129,467	86,043,137

3.3 SMALL GRANTS PROGRAM

In 2012 Sierra Leone joined the SGP, under the GEF-5 strategic framework and Sierra Leone's environmental management priorities with the following broad strategic directions:

- Actively engage indigenous representatives from biodiversity-rich areas in CBD decision-making processes recognizing them as rights-holders as distinct from stakeholders, given their close dependence on and historical connection with biodiversity.
- Improve participation in national policy processes especially by local groups;
- Improve advocacy and capacity for mainstreaming environmental management in national legislative and institutional processes.
- Strengthen CSO capacity to mainstream global environment issues to achieve local and global benefits;
- Promote small-scale, climate-smart technologies for rural energy and poverty alleviation.
- Revise conservation policies to promote coherence of indigenous and human right frameworks both nationally and internationally;
- Promote mainstreaming via local institutions but with pooled support from strategic and network partnerships.
- Tackle mainstreaming by building on existing integrating processes rather than separate master plans.
- Emphasize the socio-economic benefits of environmental management through participative communication and education programmes, and make explicit the links between conservation and national development objectives.

Since 2013 a total of 42 projects have been approved, the majority in Biodiversity (Table 10:). Average GEF grant size is around US\$30,000.

Table 10: Portfolio of Small Grant Projects in Sierra Leone

Focal Area	Number of Projects	GEF Amount	Co-financing Cash	Co-financing in Kind
Biodiversity	17	485,625	38,919	349,556
Climate Change	8	216,994	14,800	71,988
Capacity Development	7	193,885	10,000	176,187
Land Degradation	7	197,755	1,832	259,913
Persistent Organic Pollutants	3	93,860	0	94,040
Total	42	1,188,119	65,551	692,030

CHAPTER 4. RESULTS OF GEF SUPPORT

GEF support in Sierra Leone has covered all GEF focal areas for which the country has been eligible, both through national projects and through Sierra Leonean components of regional and global projects. The results of these activities are assessed below. A focal area approach is adopted, since this clarifies the linkages between activities, the accumulation of results, and progress along the causal chain from outputs toward long-term impacts and global environmental benefits.

The GEF has invested in three broad categories of intervention in Sierra Leone. The first is that of enabling activities and capacity development activities. As described in Chapter 3, the largest number of GEF projects in Sierra Leone fall under this category.

These activities are foundational capacity building through fulfilling basic convention obligations (e.g., national communications, NAPA, and NBSAP). In the short term, fulfilment of obligations under environmental conventions is a good result, mainly because it has now allowed the country to progress toward development and implementation of further medium-and full-size projects that have the potential to deliver tangible “on the ground” results. In the medium term, heightened awareness and capacity, particularly of government, to address environmental management issues are also an indicator of achievement, such as the NAPA leading to LDCF adaptation projects. These results are expected to produce positive changes in the local and national environment, while contributing to global environmental benefits in the long term.

The second category of intervention in Sierra Leone has been that of MSPs. Only one has been implemented in Sierra Leone. Such projects are smaller in size than the full-size projects discussed below, and are expected to directly generate environmental benefits, but to less an extent than full-size projects.

The third category of interventions is that of FSPs. Such projects are coming into pre-eminence in the GEF portfolio with four currently under implementation and four in the pipeline. Such interventions directly generate environmental results, although the issues of scale-up and sustainability are critical for the attainment of long-term impacts.

4.1 BIODIVERSITY

The GEF biodiversity projects in Sierra Leone have been broadly successful in delivering their results, or are being successfully executed along the expected lines that should enable them to deliver the expected results. This enabling activity allowed Sierra Leone to meet its obligations to the global biodiversity convention, the CBD, by producing a NBSAP. Sierra Leone has succeeded in sustaining the result achieved in the enabling activity by obtaining the necessary GEF and substantial co-financing to implement follow up full-size projects, which are making a valuable contribution to increasing the number, size and integrity of a variety of globally significant ecosystems by delineating representative samples of ecological areas and declaring them as legally protected. This will remove them partially or entirely from production and any other form of land use that may have an adverse impact on the objectives for which they are set aside. GEF interventions are leading to environmental benefits in the area of protection and preservation of the country’s biodiversity, some of which is of global importance, e.g. the protection of important wetlands ecosystems, by strengthening and implementing major elements of the planned Protected Areas Program in the country.

Enabling Activities

The GEF supported one enabling activity in the area of Biodiversity, the UNDP implemented ‘National Biodiversity Strategy and Action Plan and Country Report to the COP’ (GEF ID 1289). The results cover a Biodiversity Strategy divided into two broad categories: (a) the thematic strategies

and general measures (i.e. cross-sectoral strategies). The main thematic areas considered are Wildlife, Forest Biological diversity, Agricultural biological diversity, Inland water biological diversity and Marine and Coastal biological diversity; (b) cross-sectoral strategies covering cross-cutting issues including policy legislation, capacity building, public participation, planning, monitoring, protected areas conservation, sustainable use, incentive measures, research and training, public education, impact assessment, access to technology, information exchange, sharing of benefits, indigenous knowledge and financial resources. Results produced also include a Biodiversity Action Plan comprising measures and mechanisms intended to conserve and promote the sustainable use of the different components of the country's biodiversity.

The NBSAP identified a total of eight priority ecological sites of important biodiversity and suggested that urgent actions were needed to restore the integrity and ecological functionality of these systems. These ecological sites are spread over four major types of ecosystems comprising the arid and semi-arid; coastal, marine and freshwater; forest; and mountain zones.

Full Size Projects

Two important World Bank implemented, GEF funded FSPs are currently underway: the 'Sierra Leone Biodiversity Conservation Project (SL-BCP)' (GEF ID 2948) and the 'SPWA-BD Wetlands Conservation project (SL-WCP)' (GEF ID 4105). Midway through implementation, the achievement of results can be classified as *Satisfactory*.

The SL-BCP is expected to assist the GoSL to improve the management of three priority biodiversity conservation sites (out of the 8 proposed in the NBSAP), and enhance capacity for replication of best biodiversity conservation practices at all conservation sites in the country. The second FSP, the SL-WCP is successfully piloting the conservation planning and management of two wetland sites that are of global environmental importance (Table 11:).

GEF grant funds are also financing capacity building of forest managers, civil society organizations, sub-national governments, rural communities in Protected Area management and biodiversity conservation. The projects are also documenting local knowledge and skills in natural resource management and are employing them in the management and protection of selected Protected Area sites.

Table 11: The Conservation Sites in the World Bank Implemented Biodiversity and Wetlands Conservation projects

Conservation site	Description	Environmental issues
Biodiversity Conservation Project Sites		
Outamba-Kilimi National Park	112,825ha. Savanna woodland. ☐ National Park status since 1995. The site supports at least nine species of primates including four threatened species - western chimpanzee, red colobus monkey, black and white colobus monkey and sooty mangabey. In addition to elephant and hippopotamus, other resident large mammals include leopard, savanna buffalo, maxwell duiker, and water chevrotain. Vegetation is characterized by a mix of grassland, closed woodland and gallery forest, with South Guinea woodland savanna dominant.	<ul style="list-style-type: none"> • Community resource use: hunting, farming, wood cutting, bush fires, NTFPs, fishing. • Commercial logging close to the park's boundaries. • Encroachment from Guinean communities with cattle in the Kilimi side.
Loma Mountains Non-Hunting Forest Reserve	33,200ha. Montane forest and savanna ecosystem. Non-hunting forest reserve since 1973. The Reserve includes the largest and most remote and pristine Guinea mountain forest ecosystems in the country. At 1,945 meters above sea level, Bintumani Mountain, in the core of the site, is the highest mountain in the country, and the	<ul style="list-style-type: none"> • Low human influence due to isolation and difficult geography. • Evidence of small farming but no evidence of extractive activities

	highest peak west of Mount Cameroun. The site includes grasslands and Savannah above the tree line, mountain evergreen and low altitude tropical forests. Loma ecosystems support more than ten species of primates including chimpanzee, red colobus, black and white colobus, and sooty mangabey. Other resident threatened species include black duiker, Jenkins and Maxwells duiker, forest buffalo, leopard and - at the lower elevations - water chevrotain, elephant and hippopotamus. Because of its altitude, Loma Mountain hosts rich bird fauna including many species that do not occur elsewhere in the country, including five that are globally threatened.	<ul style="list-style-type: none"> • Reserve's boundaries unclear.
Kangari Hills Non-Hunting Forest Reserve	8,573ha. Rainforest. Non-hunting forest reserve since 1973. The Forest Reserve is a watershed for some of the country's main river systems and includes rich mountain forest and Savannah ecosystems. The site has been designated an important bird area by virtue of species diversity, endemism and threat (including three globally threatened species - white necked rockfowl picathartes, black faced stream warbler, and green tailed bristlebill), and hosts approximately 33% and 18% of Guinea forest and Guinea-Sudan biome species respectively. By virtue of its linkages with other remnant forest ecosystems, the site also includes vagrant populations of forest elephant and resident populations of threatened primate species including chimpanzee, red colobus, and black and white colobus monkeys.	<ul style="list-style-type: none"> • Low human influence due to isolation and difficult geography. • Mining activities in fringe areas, but this needs to be confirmed. • Reserve's boundaries unclear.
Wetlands Conservation Project Sites		
Sierra Leone River Estuary	The Sierra Leone River Estuary covers an area of more than 259,000 ha and was designated a "Wetland of International Importance" on December 13, 1999 under the Ramsar Convention on Wetlands. The estuary is lined by 110 ha of mud and sand foreshore, backed by mangroves, and 1,800 ha of intertidal mudflat and muddy sandflats, containing key mangrove tree species and abundant wader species. The predominant mangrove tree species are <i>Rhizophora</i> sp., <i>Avicennia africana</i> , <i>Laguncularia</i> sp. and <i>Conocarpus</i> sp. The site is a critical bird habitat. A total of 36 wader species have been recorded in the estuary and numbers are known to regularly exceed 20,000. This is one of the four major sites for wintering waders in the country. Concentrations are usually found along the banks of the Bunce River and Aberdeen Creek, where mangroves provide suitable roosting sites, as well as breeding habitat for such species as the striated heron <i>Butorides striatus</i> , and other species of egrets and herons. Less common migrant Palearctic waders (less than 500 individuals) found include ruddy turnstone <i>Arenaria interpres</i> , Eurasian curlew <i>Numenius arquata</i> , marsh sandpiper <i>Tringa stagnatilis</i> and Temmink's stint <i>Calidris temminckii</i>	<ul style="list-style-type: none"> • unsustainable clearing of mangroves for firewood and construction materials; • dumping of untreated waste from industries in the Freetown area; • oil spillage from tankers unloading at the main port. salt processing and curing of fish, which requires large quantities of firewood, provide additional threats to the site
Mamunta Mayosso	The Mamunta Mayosso complex was the first site to be managed as a wildlife sanctuary in Sierra Leone. Located almost at the centre of the country, Mamunta Mayosso supports a wide range of vegetation types. The	The major threat to the site is cultivation of agricultural crops (rice and cassava). Other threats include cattle grazing, fishing,

	<p>predominant vegetation is boliland (seasonally flooded grassland) with occasional occurrence of swamps, savanna, secondary forest and two perennial lakes. This 2,000 ha site is important for its diverse endemic flora and has excellent eco-tourism potential; it is one of the few areas in Sierra Leone still supporting viable populations of the threatened Dwarf Crocodile, and hosts 252 species of birds, belonging to 51 families. These include two near threatened species - Turati's Boubou and Rufous-winged Illadopsis. A waterfowl census conducted at the two wetlands of Dakrafi and Robierra (Thompson, 1994) gave a total of 1280 birds of 18 species and includes a large count of the White-faced Whistling Duck. In addition to birds, eight species of primates are known to occur in this sanctuary. Also present are big game mammals such as bushbuck, bush pig, genets and duikers. The threatened primate species are Western Chimpanzee and Red Colobus monkey. Other threatened fauna includes the Dwarf Crocodile. The major threat to the site is cultivation of agricultural crops (rice and cassava). Other threats include cattle grazing, fishing, and hunting.</p>	<p>and hunting.</p>
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4.2 CLIMATE CHANGE

The climate change portfolio has been the largest in Sierra Leone in terms of number of projects, the amount of GEF funding, and the amount of co-financing. Five of the six implementing agencies have activities in the area, consisting of both enabling activities and full size projects. Overall, in the field of climate change, GEF support has helped Sierra Leone substantially increase its capacity in such fields as adaptation and renewable energy. The adaptation activities have enhanced capacity to understand and track the effects of climate change and to plan responses to them. Ministries, departments, agencies and the University were strengthened and are now capable of undertaking inventory studies. GEF support has enabled the country to secure substantial co-financing for the measures necessary to further reduce GHG emissions, adapt effectively, and reduce the vulnerabilities associated with climate change.

Enabling Activities

The GEF has so far supported three enabling activities under climate change: 'Enabling Sierra Leone to Prepare its First National Communication in Response to its Commitments to the UNFCCC' (GEF ID 296), the global project 'Umbrella Programme for National Communications to the UNFCCC' (GEF ID 4498), and 'Preparation of a National Program of Action for Adaptation to Climate Change' (GEF ID 2482). Each project was implemented either by UNDP or UNEP. The first two successfully produced the first and second National Communications to the UNFCCC, allowing capacity building of climate change institutions and experts. The rudiments of an information system for collection, organization, storage and dissemination of local and international climate change literature in the country was established, national institutions (ministries, departments and agencies, the University, key NGOs etc.) were strengthened and are now capable of undertaking inventory studies, mitigation analysis, impact studies, vulnerability assessments and project formulation; an inventory of sources and sinks of Greenhouse Gases (GHG) in Sierra Leone was undertaken based on the Intergovernmental Panel on Climate Change (IPCC) methodology and local emission factors. Also, a more informed body of policy makers and the public has been created on climate change issues.

The third EA increased the capacities of local experts on Vulnerability and Adaptation (V&A). Key vulnerability sectors were identified for consideration into the elaboration of the NAPA, adaptation options are identified, policy and measures formulated and their feasibility characterized by priority sectors. Also, a portfolio of priority projects was produced. The NAPA was prepared through a participatory stakeholder review process and the final version was widely disseminated to national and international adaptation-involved users.

Also covering the climate change focal area was the multi focal-area project, 'National Capacity Self-Assessment (NCSA) for Global Environmental Management' (GEF ID 2145), implemented by UNEP. The project prepared three thematic profiles for the CBD, UNFCCC and UNCCD, each involving a review of needs identified in relevant reports and documents, a Strengths, Weakness, Opportunities and Threats (SWOT) assessment of past and on-going efforts related to capacity building in each thematic area, an in-depth description of capacity building activities needs in the different sectors; and identification of capacity building priorities, and preparation of an Action Plan that was presented to the Government for endorsement. For implementation of the CBD, they include expansion of protected areas, inventory and databases of ecosystems, species and habitats, legislation for biodiversity conservation, etc.. For implementation of the UNCCD they include institutional strengthening and capacity development of GoSL line ministries and NGOs, development of an appropriate land use policy and plan, formulation of national strategies for poverty reduction through provision of alternative livelihoods to exploitation of degraded lands, etc. For implementation of the UNFCCC they include creation of a center for climate change research, capacity building of target communities, policy reforms, etc.

Full Size Projects

The GEF is currently supporting two full size national projects in the area of climate change. The IFAD implemented project, 'Integrating Adaptation to Climate Change into Agricultural Production and Food Security in Sierra Leone' (GEF ID 3716), and the UNIDO project, 'SPWA-CC Promoting Mini Grids Based on Small Hydropower for Productive Uses in Sierra Leone' (GEF ID 3937).

Progress toward achievement of the outcomes of the IFAD project has been satisfactory. The expected results include sustainable development of inland valley swamps for rice/other food crop production, participatory mapping and monitoring of vulnerability to climate change, development of climate-resilient rice production systems in the lowlands, training for local rice producers on best adaptation practices, ecosystem-based adaptation of cropping in the uplands, agriculture climatic data collection and analysis for decision making, and knowledge and awareness on climate change at community level.

In the UNIDO project field observations of the progress in delivery of expected outputs revealed that they are behind the schedule in the project document. The expected results include strengthened institutional capacities at various levels on the planning and implementation of Sustainable Hydro-Power (SHP) based mini grids projects for enhancing electricity supply and productive applications, public – private investments and partnerships and stakeholders acceptance of viability of SHP based mini-grid enhanced, local expertise and knowledge enhanced for SHP based mini-grids (installation, operation and maintenance), their financing and productive use, and conducive policy and regulatory frameworks in place. By the time of the review the Inception Workshop and the first meeting of the Project Steering Committee were organized and consulting activities were underway, including preparation of environmental impact assessment report and gender mainstreaming components, all 12 – 18 months behind schedule, due apparently to delays in stakeholder consultations and UNIDO procedures.

As indicated earlier (Table 7:) there are four full size projects in Climate Change in the design phase that are not yet effective. They cannot be assessed in terms of results in this review.

4.3 LAND DEGRADATION

Arresting land degradation and promoting sustainable land management is one of the most important national environmental challenges facing Sierra Leone as identified in the country's PRSP. GEF support in the Land Degradation Area allowed the country to implement one medium size project. Overall the project enabled the country to build some limited capacity for sustainable land management, and mitigation of the threats of land degradation. It enabled Sierra Leone to prepare a National Action Program (NAP) to combat desertification and thereby meet the country's obligations under the UNCCD. However the NAP has not yet been formally adopted, and there was no success in mainstreaming sustainable land management into policies, laws, programs, budgets and regulatory frameworks as envisaged. The GEF intervention was too small in size, and of too short in duration to allow achievement of the project's outputs and outcomes. That is, the project had an over-ambitious design in terms of expected outputs and outcomes, given its size and duration. The major challenge still facing the country is how to secure the necessary funding to implement the measures to combat land degradation proposed in the NAP.

Medium Size Projects

The only GEF funded national activity in land degradation to date has been the UNDP implemented 'LDC/SIDS Portfolio Project: Capacity Building for Sustainable Land Management in Sierra Leone' (GEF ID 3510). The project aimed to build capacity for sustainable land management (SLM) in Sierra Leone by removing the key barriers and mainstreaming SLM into laws, university and school curricula, and the national budget. The project also aimed to create sustainable capacity and ownership in Sierra Leone to mitigate land degradation and thereby meet the country's obligations under the UNCCD.

A ROTI was conducted for the project (see Volume 2) and revealed that the project only *satisfactorily* achieved one of its results; the preparation of a National Action Program (NAP). The objective of Sierra Leone's NAP is to combat desertification and land degradation. The NAP is set within the overall vision of Sierra Leone's longer-term development agenda articulated in 'Vision 2025'. This is based on the "desire to create a better future for Sierra Leone a future that is characterized by virtuous circle of peace, stability and wealth creation, in place of the vicious circle of poverty and under-development". Therefore, the objective of the NAP is to achieve sustainable development by creating long-term strategies that focus on improved productivity of land and SLM practices that will lead to improved conditions of living.

Core areas of intervention proposed in the NAP, the implementation of which is expected to contribute to achievement of GEBs in the land degradation area, are as follows: (1) Forestry and Wildlife Management, (2) Livestock and Range Management, (3) Mining, (4) Agriculture, (5) Gender and Land Degradation, and (6) Waste Management and Environmental Health.

The other planned results of the project were not achieved and are rated as follows:²⁸ Outcome 2 - Medium-term Investment Plan (MTIP) is approved and funded (*Highly Unsatisfactory*); Outcome 3: Sustainable land management is mainstreamed into policies, laws, programs, budgets and regulatory frameworks (*Unsatisfactory*); Outcome 4: Capacity Building for Participatory Sustainable Land Management Practices in Sierra Leone (*Moderately Unsatisfactory*). It is clear that the project had over-ambitious design in terms of expected outputs and outcomes, given its size and duration.

4.4 PERSISTENT ORGANIC POLLUTANTS (POPs)

The GEF project, 'Enabling Activities to Facilitate Early Action on the Implementation of the Stockholm Convention on POPs in Sierra Leone' (GEF ID 2486), was implemented between 2003 and

²⁸ See ROTI report in Volume 2.

2009. As a result of this GEF support, implemented by UNIDO, Sierra Leone completed its National Implementation Plan (NIP). However, even five years after its development, no follow-up activities have been undertaken except for the recent designation of a focal point for relevant activities in the Environmental Protection Agency.

Enabling Activities

GEF supported Sierra Leone by funding one national enabling activity under POPs; the UNIDO implemented 'Enabling Activities to Facilitate Early Action on the Implementation of the Stockholm Convention on POPs in Sierra Leone' (GEF ID 2486). The project resulted in: (1) a national inventory that identified and quantified POPs production, trade, storage, use or unintentional emission; (2) an assessment of the current legal, institutional, and technical capacity in the management and monitoring of POPs; (3) an assessment of the socio-economic implications of POPs use and reduction, and awareness of POPs related risks amongst stakeholders; (4) identification from preliminary inventories and assessments, the actions to be taken by Sierra Leone as a matter of priority; and (5) preparation of a National Implementation Plan (NIP).

The NIP has developed an Action Plan to reduce or eliminate the chemicals in Annexes A and B of the Stockholm Convention. Since Sierra Leone does not produce POPs, the strategies developed focus on the following: (1) Control of importation and use; (2) Raising awareness of decision makers and users, and (3) Equipping the institutions involved with means of identification and intervention. Priority activities cover strengthening the legal and institutional framework for management of POPs and other agricultural and industrial chemicals, facility development for PCBs disposal, establishment of coordinating mechanisms for POPs management, establishment of better environmental practices to manage POPs pesticides, and creation of public information, awareness raising and education tools and mechanisms for POPs. Five years after drafting of the NIP, no follow up activities have been undertaken except the recent designation of a focal point for relevant activities in the Environmental Protection Agency.

4.5 INTERNATIONAL WATERS

Activities in the marine environment and watershed management are of significant importance to Sierra Leone, given the importance of marine fisheries to the economy and the strong link between terrestrial and coastal and marine activities and development. GEF support through regional projects has enabled the country to sign regional protocols on the protection of the marine and coastal environment and cooperation in combating pollution in cases of emergency. It has also enabled the Government of Sierra Leone to substantially increase surveillance and reduce illegal fishing, creating space for the development of a new long-term policy vision that could be feasible, based on more sustainable use of fisheries resources.

The GEF has funded Sierra Leone's participation in two regional projects in under international waters. The UNDP/UNEP implemented project, 'Combating Living Resource Depletion and Coastal Area Degradation in the Guinea Current LME through Ecosystem-based Regional Actions' (GEF ID 1188), was expected to result in the creation of an ecosystem-wide assessment and management framework for the sustainable use of living and non-living resources in the GCLME. This would serve to: i) recover depleted fish stocks; ii) restore degraded habitat; and iii) reduce land and ship-based pollution in the GCLME. Globally, delivery and outcomes in the areas of fisheries and living resources, biodiversity and habitats, and water quality fell short of those anticipated in the project document. However, key outputs in this area – reflecting strong partnerships with UNEP, GPA, FAO, IMO and the Abidjan Convention – include development of regional fisheries management plans, national plans of action on land based sources of marine pollution (NPAs-LBS), adoption of the *Protocol Concerning Cooperation in the Protection of the Marine and Coastal Environment from Land-Based Sources and Activities*, and adoption of the amended regional *Protocol concerning*

Cooperation in Combating Pollution in Cases of Emergency in the Western and Central African Region and a related regional contingency plan.

Sierra Leone has developed a national action plan (NAP). It benefitted from individual capacity building by participation in the workshops which were an important foundational step towards the project development goal; to create an ecosystem-wide assessment and management framework for sustainable use of living and non-living resources in the GCLME. Sierra Leone endorsed the ecosystem based approach to assessment and management of the living and other resources of the GCLME with the main achievement in this area being endorsement of the regional Sustainable Adaptation Plan of which the country's NAP is a part.

In the World Bank implemented 'West Africa Regional Fisheries Program (WARFP)' (GEF ID 3558), the expected results is to sustainably increase the overall wealth generated by the exploitation of the marine fisheries resources of West Africa, and the proportion of that wealth captured by West African countries. Key issues addressed in Sierra Leone were: poor governance of the sector and a weak regulatory and management framework for sustainable fisheries as the sector grows in the aftermath of the war; high levels of illegal fishing, particularly by increasing the country's capacity to prevent illegal foreign fishing vessels; poor benefits from fisheries to the local economy; weak small-scale processing. Progress toward sustainably increasing the economic benefits from the region's fisheries has been substantial. The Government of Sierra Leone has substantially increased surveillance and reduced illegal fishing, creating space for the development of a new long-term policy vision that could be feasible, based on more sustainable exploitation of the resources. At the regional level, the Sub-Regional Fisheries Commission (CSRP) has begun the work of reviewing the monitoring and data collection systems for fisheries in each of the participating countries, to help them establish a national 'dashboard' of key fisheries information (such as fishing licenses and revenues), that would be aggregated into a regional dashboard that would serve as a knowledge portal for the region's fisheries.

CHAPTER 5. RELEVANCE OF GEF SUPPORT

The relevance of GEF support concerns the extent to which this support helps Sierra Leone meet its commitments under international agreements and conventions concerning the global environment, while assisting in national environmental management, according to the policies and laws of the country. Since most international agreements relate to the major focal areas supported by the GEF, relevance is most readily addressed within this framework.

5.1 RELEVANCE TO THE COUNTRY'S SUSTAINABLE DEVELOPMENT AGENDA AND NEEDS

The portfolio of GEF projects addresses is highly relevant to the country's development agenda. In the second Poverty Reduction Strategy Paper, the Agenda for Change²⁹, one of the strategic principles identified is management of natural resources. It states that the multi-sectoral nature of environmental issues creates the need to develop and implement strategies that address environment at the national level, and to mainstream them into implementation. In order to ensure environmental sustainability, as outlined in the MDG 7, Sierra Leone will take steps to address the following:

- Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources.
- Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss.
- Halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation.

The Agenda also states that while there is an urgent need to conserve the remaining natural rainforests, the Government will also explore possibilities for investment in sustainable financing mechanisms, for example through carbon markets and trading schemes, under the current and future Climate Change protocols, as well as by signing up to future Reducing Emissions from Deforestation and Degradation (REDD) programs.

In the current PRSP, the Agenda for Prosperity (AfP)³⁰, Pillar 2 is on Managing Natural Resources. Important strategy issues in the AfP that are specific to individual sectors important to environment and disaster management are:

- Water resource management - Policy will develop water resources, ensuring water is used in an integrated manner, addressing human needs, ecosystems, and conservation; responding sustainably to the needs of society and the economy.
- Land management - Strategies include a legal framework for land ownership; developing land-use planning; creating sustainable infrastructure for social improvement and economic growth; training farmers in sustainable land and water practices.
- Forests - Sustainable management will meet widely different objectives, of forest conservation, watershed regulation, traditional exploitation, economic development and job creation, eco-tourism, biodiversity and climate change.

As indicated earlier, GEF enabling activities (EAs) have been catalytic and have laid the foundation for follow up activities in biodiversity and climate change. In the sense that in signing the international conventions (UNFCCC, CBD and UNCCD) the country agreed to fulfill the obligations,

²⁹ The Republic of Sierra Leone, An Agenda for Change, Second Poverty Reduction Strategy Paper (PRSP II) 2008-2012

³⁰ Government of Sierra Leone, Agenda for Prosperity: Road to Middle Income Status. Sierra Leone's Third Generation Poverty Reduction Strategy Paper (2013 – 2018)

GEF funding of enabling activities was very relevant in making it possible for the country to fulfill its obligations by preparing the first and second National Communications to the UNFCCC, and preparation of the NBSAP, NIP and NAPA. Importantly, GEF supported EAs have provided important information for the development of a green growth strategy³¹, which will allow the country to follow a carbon efficient sustainable development path.

GEF support in the area of climate change has been highly relevant in allowing the country to address issues on adaptation and mitigation of climate change, including development of adaptive agricultural production systems. The water and sanitation projects currently being designed are highly relevant in that they are in the water sector which was ranked as one of the three top priority sectors in the NAPA. Sustainable water supply remains a major challenge to national development and is one of the major national priorities. GEF support is likely to address several climate related challenges that place significant constraints to sustainable water supply, both in Freetown as well as in rural areas. The most significant is that during prolonged dry spells provision of drinking water is problematic. Although sufficient water is available in the rainy season, during the dry season water shortages are common. Other climate related risks include that (i) water sources are tapped unsustainably, and water is mined beyond long-term capacities, and (ii) water infrastructure developments are planned without taking climate resilience into account.

GEF support in the area of land degradation fitted well within local needs due to fact that it addresses one of most pressing constraints in agriculture - the principal livelihood means for rural people, namely soil fertility and land degradation issues. However, going by GoSL meager investment in the area, the topic does not appear to be of high priority in the development agenda for agriculture. For example, annual public agricultural expenditure (of which expenditure on sustainable land management is a small proportion), as a percent of total public expenditure has ranged between 1.5-2% since 1990, and was estimated at 1.7% in 2010 (ReSAKSS, based on national sources, IFPRI, IMF 2012, AUS 2008).³²

GEF support in the area of biodiversity, through an enabling activity, followed up by two full size projects (GEF ID 2948 and 4105) are very relevant and very consistent with the Government's sectoral policies, and regulatory and institutional frameworks that deal with natural resources management (including forestry, wildlife, minerals, and fisheries), protected area system management and biodiversity conservation. They implement provisions of the *Wildlife Conservation Act (1972)*, the *Forestry Act (1988)*, and the *Environmental Protection Act (2008)*, which make provisions for the effective protection of the environment in the country and the institutional and administrative structure for its implementation. They also implement proposals made in the NBSAP, which identifies a broad range of cross-sectoral needs to ensure effective conservation of biodiversity, including policy planning and legislation, capacity building, public participation, monitoring and evaluation, incentives, research and training, public education and awareness, access to technology and information, benefit sharing, indigenous knowledge, and financial resources.

5.2 RELEVANCE TO THE ACHIEVEMENT OF GEBS

Although Sierra Leone is a small country and therefore a relatively minor player in contributing to the achievement of global environmental benefits (GEBS), all the GEF funded projects make a contribution, however small, and are therefore highly relevant to achievement of GEBS.

³¹ African Development Bank Group, 2013, SIERRA LEONE: Transitioning Towards Green Growth; Stocktaking and the Way Forward.

³² <http://www.resakss.org/region/sierra-leone/caadp-targets>

Climate Change

Based on the identified mitigation and adaptation measures in the National Communications, a strategy has been developed for the future implementation of the Convention in Sierra Leone. The National Adaptation Program of Action (NAPA) is to enable Sierra Leone to develop simplified and direct channels of communication for information relating to the urgent and immediate adaptation needs arising from disasters caused by climate change and extreme weather events. Specifically, the document aims at: (i) identifying a list of priority activities, (ii) formulating priority adaptation options, (iii) building capacity for adapting to longer-term climate change and variability, and (iv) raising public awareness on the urgency to adapt to the adverse effects of extreme weather events.

Though Sierra Leone emissions are negligible, in a bid to significantly contribute towards the reduction of sources and potential sources of GHG emissions and to enhancing carbon sinks, the country is undertaking appropriate mitigation actions listed below, as indicated in its response to the Copenhagen Accord in 2010.³³

1. Establishment of the National Secretariat for Climate Change (NSCC).
2. Institutional strengthening and capacity building for environmental protection and management as well as the country's mitigation and adaptation efforts to climate change.
3. Increase conservation efforts in Sierra Leone by the Establishment of a network of twelve Protected Areas by 2015. Sustainable management and protection of Forest Reserves and Catchment areas in Sierra Leone including mangroves, coastal and inland Wetlands. Delineation and Restoration of Vulnerable Habitats and Ecosystems in the Western Area of Sierra Leone. Provide support for a national assessment on forest resources.
4. Improve forest governance to maintain the proportion of land area covered by forests to at least 3.4 million ha by 2015, through the development of legislation, regulations and bye-laws for environmental protection, including control of deforestation, firewood collection and charcoal production and through capacity building, training and support to law enforcement services and the Ministry of Agriculture (Forestry Department).
5. Setting/developing air, water and soil quality pollution standards, and ensure regular assessments and monitoring through control programs.
6. Introducing conservation farming and promoting the use of other sustainable agricultural practices, e.g. Agro forestry etc.
7. Development of an Integrated Natural Resources and Environmental Management program for Sierra Leone, including sustainable land management programs, particularly in relation to Ecosystems.
8. Expanding clean energy utilization (e.g. solar, mini-hydro power, LPG, biomass stoves etc.).
9. Development of energy efficiency programs through sensitization and awareness raising campaigns. Sustainable production of charcoal and reduce dependence on firewood.
10. Development of alternative energy sources such as biofuels from sugarcane, corn, rice husk, etc.

³³https://unfccc.int/files/meetings/cop_15/copenhagen_accord/application/pdf/sierraleonecphaccord_app2.pdf

11. Developing agricultural and urban waste incineration programs for energy production.
12. Improved waste management through composting and recycling of waste.
13. Development and enforcement of regulations on regular Maintenance of vehicles.
14. Improving the use of mass transport (e.g. Road and water) for passengers and cargo to reduce traffic congestion and GHGs emissions.

In a number of areas, there has been much progress. For example the National Secretariat for Climate Change (NSCC) was established in 2012, and there are a number of ongoing projects funded by GEF as indicated in other sections of this report.

The FSP being implemented by IFAD (GEF ID 3716) is relevant and will enable the country to contribute significant environmental co-benefits (over and above the adaptation to climate change), principally from reducing the practice of slash and burn agriculture in uplands (protecting forests as carbon stores and for their biodiversity, also reducing erosion on burned land and protecting soil carbon) and also by raising awareness and protection of biodiversity in inland valley swamps (IVS).

The FSP being implemented by UNIDO (GEF ID 3937) is also relevant. The GEF support is expected to result in annual direct GHG emission reductions of 34.90 kilo ton of CO₂ (ktCO₂). The cumulative direct GHG emission reductions achieved would be 499.51 ktCO₂ considering the 15-year of economic lifetime of the SHP project in Moyamba and 848.52 kilotons of CO₂, considering lifetime of 25 years. These savings would not been realized without this project. The project is expected to bring about the target GHG reductions directly (through the demonstration project) and additional GHG reductions indirectly (through additional hydro power investments influenced by the project) of 770.72 ktCO₂ over a period of 15 years.

Biodiversity

The World Bank implemented biodiversity conservation projects (GEF ID 2948 and 4105) are also very relevant to the achievement of GEBs. They are making valuable contributions to increasing the number, size and integrity of a variety of global ecosystems by delineating representative samples of ecological areas and declaring them as legally protected – five of the eight nationally important biodiversity sites identified in the NBSAP. This will remove them partially or entirely from production and any other form of land use that may have an adverse impact on the objectives for which they are set aside. GEF support to management and improvement of three terrestrial and two wetland ecosystem areas is relevant to the GEB of conservation of globally significant biodiversity and sustainable use of the components of globally significant biodiversity.

Land Degradation

The UNDP implemented MSP (GEF ID 3510) is relevant to the achievement of the GEBs on improved sustainability of agricultural lands, and restoration of extremely degraded wooded savannas back towards a closed canopy forest. However, as reported in Section 4.3, and Volume 2, the intervention did not achieve most of its expected results in terms of outputs and its outcome. Consequently, it made only minimal, if any, contribution to achievement of GEBs in land degradation.

International Waters

Regional projects in which Sierra Leone has participated are relevant to achievements of GEBs in international waters. GEF support is relevant to achievement of the GEBs on assessment and management and sustainable use of living and non-living resources in the Guinea Current Large Marine Ecosystem (GCLME) (Sierra Leone is one of the 16 countries in the ecosystem), and protection of the globally significant fish habitats and fish stocks in the Canary Current Large Marine Ecosystem (CCLME). These are two of the 64 large marine ecosystems that have been delineated globally and are defined by their distinctive bathymetry, hydrography, chemistry, and trophodynamics.

CHAPTER 6. EFFICIENCY OF GEF SUPPORT

The efficiency of the overall support provided through GEF-financed activities depends on many factors, including the GEF Activity Cycle, GEF Agency systems, government ministry and national agency procedures, and the role of other stakeholders. Given the fact that GEF operates as a partnership institution and all the factors that need to be taken into consideration, it can be anticipated that the overall path of a GEF project will be long and that there may be considerable variation among projects. These aspects are explored in this chapter.

6.1 THE GEF PROJECT CYCLE

The GEF project cycle has evolved over the years. Following the GEF Evaluation Office's 2006 *Joint Evaluation of the GEF Activity Cycle and Modalities*, the GEF project cycle underwent a revision in 2007 (at the beginning of GEF-4), and processing time frame limits were adjusted. For example, a limit of 22 months for project development was imposed during GEF-4. This limit has been further reduced to 18 months for GEF-5. Figure 6 provides a summary overview of the project cycle before 2007. Figure 7 and Figure 8 give an overview of the current project cycle, presented separately for MSPs and FSPs, as the project cycle varies slightly for each of these modalities.

Figure 6: GEF Activity Cycle Prior to 2007 Revision

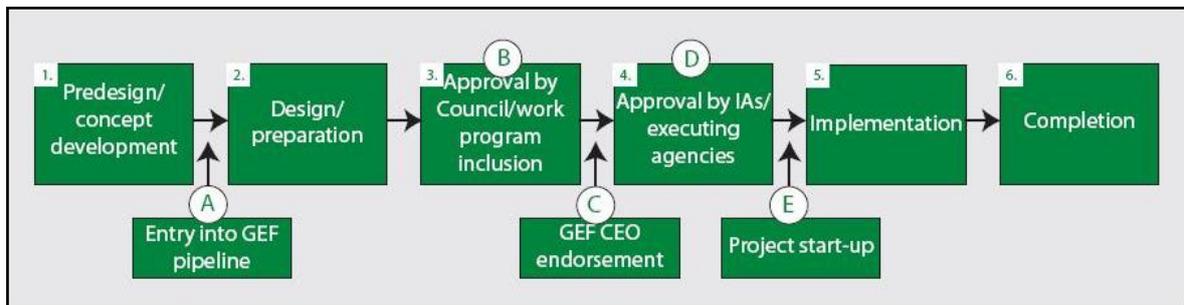


Figure 7: GEF Current Medium-Size Project Cycle

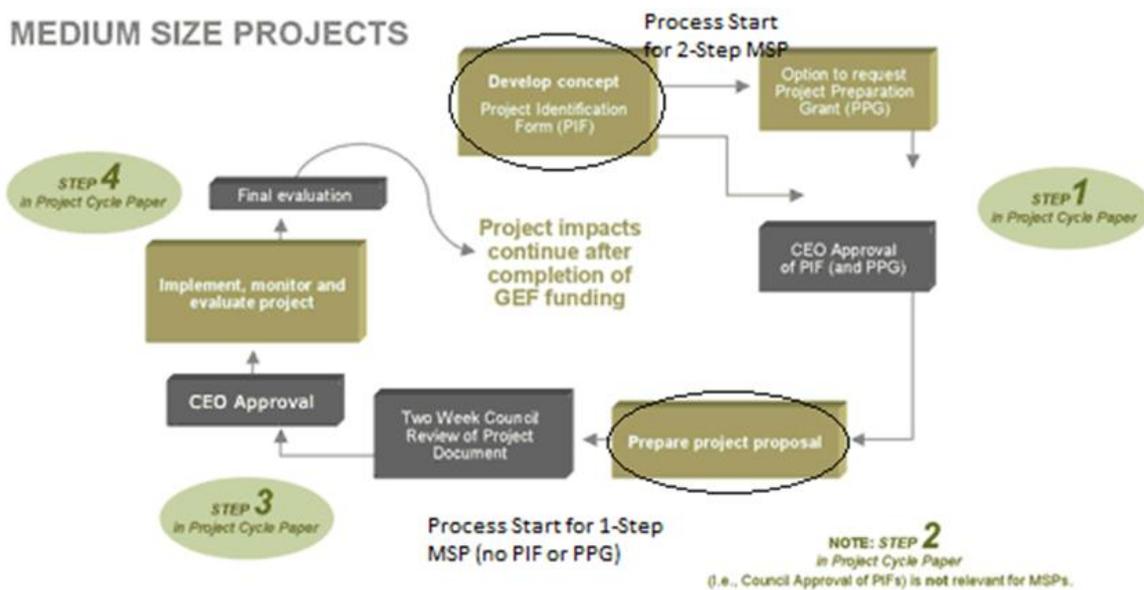
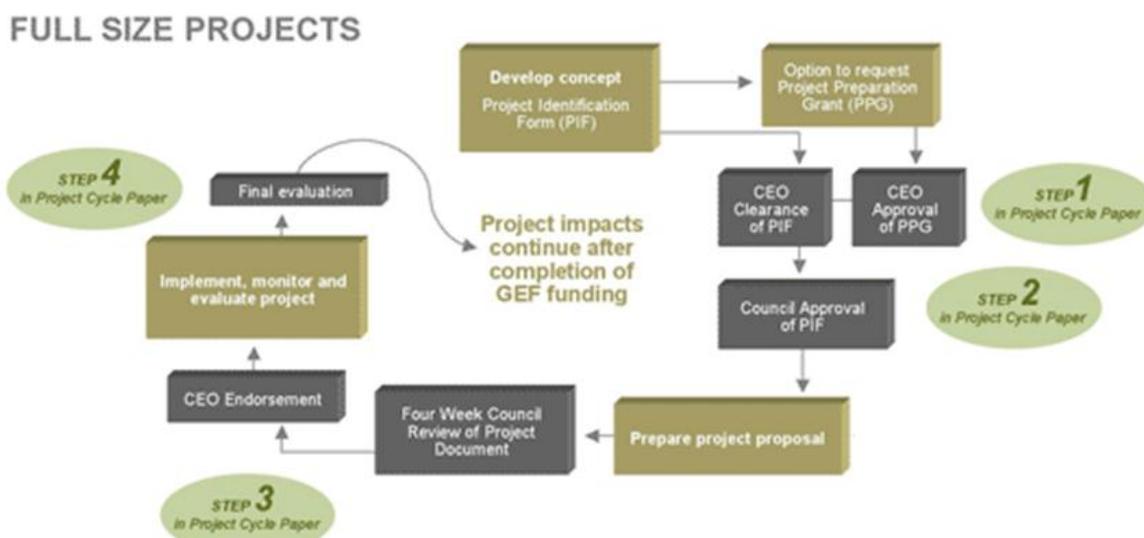


Figure 8: GEF Current Full-Size Project Cycle



The portfolio of GEF supported projects in Sierra Leone have been implemented over the three cycles. In all three types it can be seen that most steps are taken before a project starts. An important element is the design and preparation stage. The option has always been available to obtain GEF funds to assist in this process, which may include original research and extensive consultation processes to build stakeholder understanding and ownership. Projects that have received GEF assistance for this stage (previously called a project development facility or 'PDF' and now a project preparation grant or 'PPG') may therefore show a long duration in moving from stage A to stage B (later Steps 1 to 3). This does not in itself reflect inefficiency, but a thorough preparatory and consultative process. However, this stage of the cycle may run into other problems, such as the availability of funds within a given GEF replenishment phase, either overall or for specific focal areas. The efficiency of the activity cycle cannot be assessed simply by comparing the durations of stages across projects. This measure is mainly informative when projects and other elements of the system are compared across similar activities in similar situations.

Table 12: presents data on the project cycle times for the Sierra Leone portfolio. EAs and the only MSP were prepared before 2007 under the original project cycle (GEF 1 to 3). An important factor in analyzing the GEF project cycle in Sierra Leone is the disruption caused by the country's civil war between 1992 and 2002. GEF started work in Sierra Leone in 1996, with the pipeline entry of the project to support preparation of the First National Communications to the UNFCCC (GEF ID 296). However, because of the disruption caused by the Civil war, the project could not become effective and start implementation until the end of the war in 2002. The longest project cycle time was therefore for that EA. Other GEF enabling activities and the MSP were prepared after the end of the civil war, between 2001 and 2008, and have a shorter duration – all except one being under the 22 months limit later imposed for GEF-4. For the GEF as for all other donors active in Sierra Leone general slowness on project cycle times is related to the country coming out of a civil war situation, still being fragile and facing reconstruction problems, among other factors.

The FSPs under implementation were designed under GEF-4 and GEF-5. The data in Table 12: and Table 13: show that project cycle times have been significantly longer than the GEF established limit of 22 months under GEF-4 and 18 months under GEF-5.

Table 12: Duration of the Activity Cycle for National Projects (Days)

Name	A-B	B-C	C-D	D-E	A-C	A-E
Enabling Activities						
Enabling Sierra Leone to Prepare its First National Communication in Response to its Commitments to UNFCCC	N/A	N/A	2036	0	14	2050
National Biodiversity Strategy and Action Plan (NBSAP), and Country Report to the COP	N/A	N/A	170	0	42	212
National Capacity Self-Assessment (NCSA) for Global Environmental Management	N/A	N/A	96	0	47	143
Preparation of a National Program of Action for Adaptation to Climate Change (NAPA)	N/A	N/A	542	0	17	559
Enabling Activities to Facilitate Early Action on the Implementation of the Stockholm Convention on POPs in Sierra Leone (NIP)	N/A	N/A	83	8	677	768
Average	N/A	N/A	585	2	159	746
Medium Size Projects						
LDC/SIDS Portfolio Project: Capacity Building for Sustainable Land Management in Sierra Leone (SLM)	-	-	-	-	-	245
Full Size Projects						
Biodiversity Conservation Project (BCP)	293	1198	-	-	1491	1688
Integrating Adaptation to Climate Change into Agricultural Production and Food Security in Sierra Leone	84	813	45	413	897	1355
SPWA-CC Promoting Mini Grids Based on Small Hydropower for Productive Uses in Sierra Leone	83	974	-	119	1057	1070
SPWA-BD Wetlands Conservation Project (WCP)	183	316	-	-	499	624
Average	149	728	45	266	867	1,184
Overall Average	149	728	495	77	546	899

Table 13: Duration of the Activity Cycle for GEF-Supported National by GEF Agency (Days)

GEF Agency	Number of projects	A-B	B-C	C-D	D-E	A-C	A-E
AfDB	1	107	-	-	-	-	-
IFAD	1	84	813	45	413	897	1355
UNDP	7	148	534	916	0	267	767
UNEP	1	N/A	N/A	96	0	47	143
UNIDO	2	83	974	83	64	867	919
WB	2	238	757			995	1156
Total/Average	14						

Note: Global project (GEF ID 4498) has not been included in this analysis

Although six GEF implementing agencies are implementing projects in Sierra Leone, the largest part of the national portfolio has been implemented through UNDP, which implemented all but one of the enabling activities. All GEF Agencies have experienced delays in the project cycles. The main causes of the delays are:

- Delays due to difficulties in collecting background data for stakeholder analysis for project design. Because of the poor state of agricultural statistics in the country, it is often necessary

to do some primary data collection involving gathering of environmental and socioeconomic data from local communities, a time consuming process

- Delays in recruitment of staff for project designs as well as project implementation, a feature of the procurement processes of the agencies e.g. minimum duration for local or international advertisements, the time to get no-objections from headquarters staff, etc.
- Difficulties in identifying suitably qualified local staff, often requiring the use of internationally recruited consultants, the recruitment of whom usually involves long delays as a search must first be made for local talent.

As shown in Table 13:, UNDP has the lowest average project cycle average. The Agency is the only one of the six GEF Implementing Agencies with professional staff in for management of the GEF portfolio that based in the UNDP country office. The other agencies with Task Managers resident in their Head Office experience longer communication delays. The duration of the latest FSP to become effective, the World Bank wetlands project (GEF ID 4105, 624 days), shows that the GEF Agencies, and the national authorities are getting more efficient in the preparation of GEF supported projects – the desirable trend.

6.2 DISTRIBUTION OF PROJECT COSTS

Table 14: presents data on the distribution of the costs of GEF funded projects that have reached the stage of becoming effective. PPG/PDF costs account for 1.8% of GEF funds for enabling activities and 3.7% for full size projects, which are reasonable. For full size projects, significant co-financing was leveraged (84% of total project costs), implying that the grants have been effectively used in achieving one of the aims of GEF support to national projects. Project management costs amount to 5% of GEF funding on average, which is within accepted GEF limits. However, the 3 enabling activities that had the project management costs stated separately had an average 28.09%.

Table 14: Distribution of costs of national projects

	Project Type			
	EA	FSP	MSP	Overall
GEF Project Grant	1,370,500	24,316,164	475,000	26,161,664
Total GEF Amount*	1,395,500	24,896,164	500,000	27,141,664
Co-financing	36,000	129,060,378	442,000	129,538,378
Total Project Cost	1,431,500	153,956,542	1,203,000	156,680,042
PDF/PPG GEF amount	25,000	930,000	25,000	980,000
PPG/PDF as % of Total GEF Funds	1.79%	3.68%	5.00%	3.61%
PPG/PDF as % of Total Project Cost	1.75%	0.60%	2.65%	0.63%
Total Project Management Costs	324,900	7,758,600	102,500	8,034,500
Total PM Cost as % of Total Project Cost***	28.09%**	5.04%	8.52%	5.24%

Note: *Total GEF Amount = Grant + PPG/PDF; **Project management costs were only stated for 4 of the 5 EAs; ***Project Management Cost: Operational Guidance Note 1.1 (2011) states PMCs should not exceed 5% for grants of US\$2 m and over and 10% for US\$2 m and under.

6.3 PARTNERSHIP, COLLABORATION AND SYNERGIES

The immediate counterpart for GEF funded activities is currently the Environmental Protection Agency (EPA) established by an Act of Parliament in 2008, in which the political and operational focal points are located. Previously it was the Ministry of Lands, Country Planning and Environment, the lead institution that was established to serve as the main body for the implementation of environmental policy, including the sustainable management of land resources in Sierra Leone. The other important partner, particularly for biodiversity issues is the Ministry of Agriculture, Forestry & Food Security. In particular, the Forestry Division, which is charged with the implementation of most environmental activities – including conservation and wildlife management – and the Land and

Water Development Department, which has a mandate to create an enabling environment for increased food production through sustainable development and utilization of land and water resources.

Most GEF projects have required cross-ministerial collaboration and coordination as climate change, land degradation, and biodiversity are cross-cutting issues. It was common for projects to obtain support across ministries and agencies through a broad participatory process using cross sectoral steering committees and working groups.

Enabling activities were implemented by a management team which maintained strong linkages with all relevant stakeholders through committees and workshops. There was little or no formal linkages with civil society organizations or private sector organizations but there was full and effective consultations with all relevant local stakeholders

Projects generally utilized complementarities with all necessary actors - University and Ministries, Departments and agencies, and there was some interaction with other donor projects in the same focal area, particularly in biodiversity.

All MSPs and FSPs are implemented by dedicated Project Management Units (PMUs), which report to Project Steering Committees (PSCs) on which the relevant government agencies and other stakeholders are represented. A typical example is the National Project Coordinating Unit of the (NPCU) of the IFAD project which is responsible for overall planning, coordination, supervision and monitoring, while most activities in the field will be carried out by implementing partners (contractors, NGOs, CBOs and government agencies) on the basis of performance-based contracts and MOUs.

The nature of the FSPs which are carrying out activities in local communities, require more effective collaboration mechanisms at local levels than EAs. The GEF projects have strong arrangements for interaction with the local communities. Local site management teams have been set up for co-management between the PMUs and local authorities in all the projects. For example, the Sustainable Land Management Project contracted two local NGOs (PASACOFAS and Green Scenery) to manage its pilot sites. Local management committees were also established for each site consisting of local stakeholders such as Chiefdom and Village Council members, representatives of beneficiaries etc., for each SLM site (called Local Steering Committee); for the sites of the World Bank biodiversity conservation and wetlands projects (called Conservation Site Management Committees which include a number of different agencies - relevant line ministries and district councils, traditional authorities, NGOs and CBOs, and local communities); for the IFAD sustainable Agriculture project (called Village Development Committees through which community management plans are developed); etc.

None of the projects have formal linkages with private sector organizations. None of the project activities can count on private sector involvement in supporting conservation site management and financing or other environmental management activities. However there are full and effective consultations with all relevant private sector institutions and efforts are made to sensitize private sector organizations on the effect of their activities on project on such issues as threats to biodiversity conservation and land degradation. For the biodiversity projects considered for the future, it seems feasible to attract private sector participation, for example in the area of ecotourism support as well as for processing and marketing of high value agricultural crops, as long as the market alternatives are available. For example, intercropped cashew plantations or small-scale pineapple production with secured market outlet could increase smallholders' income and reduce pressure on natural resources in the protected areas. Furthermore, it is expected that mining companies operating close to protected areas might be interested to come to agreements that could include financial support for conservation site management as part of the companies' responsibility to mitigate and compensate for environmental damages caused (i.e. offsetting).

Gender issues are not explicitly addressed in the portfolio, but implementation activities are usually gender neutral, and alternative livelihood activities usually include women's activities. For example, in the IFAD/LDCF project (GEF ID 3716), participatory M&E involves women-only focus groups, to ascertain the extent of women's participation in programme activities, their constraints faced, benefits gained, aspirations met, impact on women's status in the family, their involvement in community affairs and the climate-proofing of their agriculture. On the UNDP Sustainable Land Management sites women participated in composting for use in vegetable gardening, which is expected to partially compensate for the negative impact on the income of both men and women from reduced charcoal burning production.

There are strong synergies and projects generally maintain strong linkages with other similar projects, and are often embedded in ongoing activities of the IA in a synergistic manner that facilitates access to co-financing sources. For example, in the IFAD project, the management of the GEF financed component – 'Integrating Adaptation to Climate Change into Agricultural Production and Food Security', which became effective in 2011 – is embedded within the Rehabilitation and Community-based Poverty Reduction Project (RCPRP), which became effective in 2006. The joint National Project Coordinating Unit is has been recommended to also lead and coordinate related climate change activities being done by other agencies (UNDP, FAO, EPA, and Meteorological Dept.) to avoid duplication of effort and expense.

Another example is provided by the World Bank 'Biodiversity Conservation Project (BCP)' (GEF ID 2948), which is directly linked to the Bumbuna Hydroelectric Offset Project in Loma Mountains National Park. The latter project was supported by the WB before the commencement of effective operation of the BCP in June 2011. Regular coordination meetings have been organized throughout its implementation phase, especially with the objective to avoid duplication and harmonize activities, agree on budgets and facilitate the continuation of recurrent or pending activities after the end of the Bumbuna Project. The components and key activities of the GEF funded 'Wetlands Conservation Project' (GEF ID 4105), which began operation in May 2013 are similar to the BCP, and is being managed by the same PMU as the BCP. This will allow building on BCP's experience and promoting best practices in other conservation site areas of the country, including inland wetlands and the coastal areas of biodiversity interest.

6.4 MONITORING AND EVALUATION

In terms of Sierra Leone's GEF portfolio as a whole, monitoring and evaluation have played a limited role. Agencies manage their projects on the basis of monitoring data, most of which concerns progress against input and output targets, with some consideration of progress toward outcomes. Terminal Evaluations are not required for enabling activities, and since all the Full Size projects in Sierra Leone are currently under evaluation, the only Terminal Evaluation Report available is for the UNDP implemented MSP on Sustainable Land Management. Therefore, only the appropriateness of the designs of M&E systems and the budgetary provisions for MSP and FSP are discussed in the rest of this section.

In general, M&E designs for projects are satisfactory. Project documents outline a set of objectively verifiable indicators for all its expected outcomes, and baseline information on the status of the indicators at project inception. The M&E systems include participatory elements, ensuring that local communities (including project beneficiaries) and partners are involved in the process. In biodiversity projects the GEF Tracking Tools for Biodiversity are being used to measure the achievement of the project objectives.

Adequate budgetary provision has been made for project management, which includes M&E, in all GEF projects and allocations are within the established guidelines for GEF 4 and 5 (see Table 14:).

The quality of M&E system implementation so far is satisfactory. Project coordinators are carrying out their responsibilities for the day-to-day monitoring of implementation progress based on the log

frame indicators and project annual work plans and milestones. The review of project documentation by the Consultant confirmed that all GEF Agencies undertake periodic monitoring of implementation progress through quarterly meetings with the project management teams and external supervision missions. Mid-term evaluations are undertaken (with the exception of the sole MSP in the portfolio) to systematically determine any mid-course corrections needed.

6.5 COUNTRY OWNERSHIP

The GEF operational focal point has provided consistent support to the portfolio development process and has a major effect on the allocation of GEF funding, both in its old location in the Ministry of Lands as well as in the present location in the Environmental Protection Agency. Acting on behalf of the EPA, the GEF OFP has a lot of influence in deciding what focal areas and which institutions receive GEF allocations. Funds are directed to areas of national priority. For example, most of Sierra Leone's GEF 5 allocation has been directed to the energy and water sectors (climate change focal area); the areas of highest priority in the country's PRSP II and III. According to the GEF OFP, funding of such renewable energy and climate resilient water systems projects³⁴ will ameliorate the level of deforestation in the country and reduce the level of GHG emissions. The OFP has tried to stimulate projects from relevant local agencies. He explains that the underfunding of the land degradation focal area is a reflection of the lack of responsiveness of the relevant ministries compared to those in the energy and water resources ministries.

Once initiated, the GEF OFP has little influence or role in the project cycle. The GEF portfolio has been mainly designed by the GEF Agencies, but as indicated above, is relevant to national priorities because the agencies have responded to the expressed desires of the country. The Government and other stakeholders have committed to activities at various stages of design and implementation, but cannot be said to have led the project design and implementation process, except in the case of the enabling activities for the national communications to the UNFCCC in which Sierra Leoneans have been heavily involved in the preparation and drafting of key enabling activity reports. A high degree of partnership exists between the GEF Agencies and national partners, in even where there are no program officers in country offices.

³⁴ UNIDO SPWA-CC - Promoting Mini Grids Based on Small Hydropower for Productive Uses in Sierra Leone, GEF ID 3937; UNDP - Energy Efficient Production and Utilization of Charcoal through innovative Technologies and Private Sector Involvement, GEF ID 4840; UNDP - Building adaptive capacity to catalyze active public and private sector participation to manage the exposure and sensitivity of water supply services to climate change in Sierra Leone, GEF ID 4599 ; AfDB - Building Resilience to Climate Change in the Water and Sanitation Sector (GEF ID 5209).

ACRONYMS

AfDB	African Development Bank
AfP	Agenda for Prosperity
AU	African Union
AusAID	Australian Agency For International Development
CAADP	Comprehensive Africa Agriculture Development Programme
CBD	Convention On Biodiversity
CBO	Community Based Organisation
CEO	Chief Executive Officer
COP	Conference of Parties
CPE	Country Portfolio Evaluation
CPS	Country Portfolio Study
CSIRO-TR	(climate model developed for the Australian Commonwealth Scientific and Industrial Organization
DFID	United Kingdom Department For International Development
EA	Enabling Activity
ECHAM	Climate change model, Max Planck Institute for Meteorology in Hamburg
ECOWAS	Economic Community Of West African States
EDS	Enterprise Development Services Ltd
EPA	National Environmental Protection Agency
EU	European Union
EEZ	Exclusive Economic Zone
FAO	Food and Agriculture Organization of the United Nations
FSP	Full Size Project
GCM	General Circulation Model
GDP	Gross Domestic Product
GDP	Gross Domestic Product
GEB	Global Environment Benefit
GEF	Global Environment Facility
GET	Main GEF Trust fund
GHG	Green House Gasses
GIS	Geographic Information System
GoSL	Government of Sierra Leone
GIZ	German Agency For International Cooperation (Deutsche Gesellschaft Für Internationale Zusammenarbeit)
GTZ	Gesellschaft Für Technische Zusammenarbeit (German Aid Agency)
HADCM	Hadley Centre Coupled Model
HCFC	Hydro chlorofluorocarbons
HDI	Human Development Index
IBA	Important Birding Area
IBRD	International Bank For Reconstruction And Development (World Bank)
ICT	Information And Communications Technology
IDA	International Development Association
IDB	Islamic Development Bank
IFAD	International Fund For Agricultural Development
IFC	International Finance Corporation, (World Bank Group)
IFPRI	International Food Policy Research Institute
IMBO	Institute of Marine Biology and Oceanography, University of Sierra Leone
IMF	International Monetary fund

IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union For The Conservation Of Nature
JICA	Japanese International Communications Agency
LDCF	Least Developed Country Fund
LME	Large Marine Ecosystem
LMIC	Lower-Middle Income Country
LPG	Liquid Petroleum Gas
M&E	Monitoring and Evaluation
MAFFS	Ministry Of Agriculture, Forestry And Food Security
MAGICC/SCENGEN	Model for the assessment of GHG induced climate change/Scenario Generator
MDA	Ministries, Departments And Agencies
MDG	Millennium Development Goal
MDG	Millennium Development Goals
MODEP	Ministry Of Development And Economic Planning
MRU	Mano River Union
MSP	Medium Size Project
MT	Metric Ton
MTI	Ministry Of Trade And Industry
MTIP	Medium-term Investment Plan
NaCEF	National Commission on Environment and Forestry
NaCSA	National Commission for Social Action
NAPA	National Program of Action for Adaptation to Climate Change
NAPA	National Adaptation Program Of Action
NBSAP	National Biodiversity Strategic Action Plan
NCSA	National Capacity Self-Assessment
NEAP	National Environmental Action Plan
NEP	National Environmental Policy
NEPA	National Environment Protection Act
NEPAD	New Partnership For Africa's Development
NGO	Non-Governmental Organization
NIP	National Implementation Plan for POPs
NLP	National Land Policy
NPA	National Power Authority
NRM	Natural Resource Management
NTFP	Non Timber Forest Product
NU	Njala University
ODS	Ozone Depleting Substances
OECD	Organisation For Economic Co-Operation And Development
PCU	Project Coordination Unit
PDF	Project Development Facility
PDF	Project Development Facility
PIF	Project Implementation Form
PIMS	Project Information and Management System
PMU	Project Management Unit
POPs	Persistent Organic Pollutants
PPG	Project Preparation Grant
PRSP	Poverty Reduction Strategy Paper
RAF	Resource Allocation Framework
RARC	Rokupr Agricultural Research Centre
RCPRP	Community-based Poverty Reduction Project
RCPRP	Rehabilitation And Community-Based Poverty Reduction Project

REDD	Reducing Emissions from Deforestation and Degradation
ROtI	Review of Outcomes to Impacts (
SCP	Small Holder Commercialization Project
SGP	Small Grants Programme
SHP	Sustainable Hydro-Power
SL-BCP	Sierra Leone Biodiversity Conservation Project
SL-WCP	Sierra Leone Wetlands Conservation Project
SLARI	Sierra Leone Agricultural Research Institute
SLIBA	Sierra Leone Indigenous Business Association
SLIEPA	Sierra Leone Investment And Export Promotion Agency
SLM	Sustainable Land Management
SLPA	Sierra Leone Ports Authority
SLPMC	Sierra Leone Produce Marketing Company
SLRA	Sierra Leone Roads Authority
SSL	Statistics Sierra Leone
STAR	System For Transparent Allocation Of Resources
SWOT	Strengths, Weaknesses, Opportunities and Threats
UN	United Nations
UNCCD	United Nations Convention To Combat Desertification
UNDP	United Nations Development Program
UNFCCC	United Nations Framework Convention On Climate Change
UNHCR	United Nations High Commission For Refuges
UNICEF	United Nations Children’s Fund
USAID	United States Agency For International Development
USG	United States Government
V&A	Vulnerability and Adaptation
VS&L	Village Savings and Loan Association
WAEMU	West African Economic And Monetary Union
WARFP	West Africa Regional Fisheries Program
WB	World Bank
WFP	World Food Programme
WHO	World Health Organization
WTO	World Trade Organisation
WVSL	World Vision Sierra Leone

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ANNEXES

ANNEX 1. STANDARD TERMS OF REFERENCE FOR GEF COUNTRY PORTFOLIO STUDIES

Background

Country Portfolio Evaluations (CPEs) are one of the main evaluation streams of work of the GEF Evaluation Office.³⁵ By capturing aggregate portfolio results and performance of the GEF at the country level they provide useful information for both the GEF Council and the countries. CPEs relevance and utility will increase in GEF-5 with the increased emphasis on country ownership and portfolio development at the country level.

This document updates the 2006 standard Terms of Reference (ToRs) for CPEs. The way CPEs are conducted will remain consistent throughout GEF-5, so at the end of the phase, there is an opportunity to compare across countries. Nevertheless, each of these evaluations will include particular questions relevant to other evaluations under implementation in the Office at the time of the evaluation and other questions specifically relevant to the country under review. As was the case during GEF-4, CPEs will be conducted fully and independently by the GEF Evaluation Office and when possible in partnership with other evaluation offices of GEF Agencies, from governments or non-governmental sectors. Country-specific ToRs for each CPE will be prepared, based on the standard ones described in this document, at the time it is conducted.

Objectives

The purpose of GEF CPEs is to provide GEF Council with an assessment of how GEF is implemented at the country level, a report on results from projects and assess how these projects are linked to national environmental and sustainable development agendas as well as to the GEF mandate of generating global environmental benefits within its focal areas. These evaluations will have the following objectives:

- i. independently evaluate the **relevance** and **efficiency**³⁶ of the GEF support in a country from several points of view: national environmental frameworks and decision-making processes; the GEF mandate and the achievement of global environmental benefits; and GEF policies and procedures;
- ii. assess the **effectiveness** and **results**³⁷ of completed projects aggregated at the focal area;
- iii. provide additional evaluative evidence to other evaluations conducted or sponsored by the Office; and
- iv. provide **feedback** and **knowledge** sharing to (1) the GEF Council in its decision making process to allocate resources and to develop policies and strategies; (2) the Country on its participation in, or collaboration with the GEF; and (3) the different agencies and

³⁵ Countries having undergone CPEs during GEF-4 are: Costa Rica, Samoa, the Philippines, Benin, Cameroon, Madagascar, South Africa, Egypt, Syria, Turkey and Moldova.

³⁶ **Relevance:** the extent to which the objectives of the GEF activity are consistent with beneficiaries' requirements, country needs, global priorities and partners' and donors' policies; **Efficiency:** a measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results.

³⁷ **Results:** the output, outcome or impact (intended or unintended, positive and/or negative) of a GEF activity; **Effectiveness:** the extent to which the GEF activity's objectives were achieved, or are expected to be achieved, taking into account their relative importance.

organizations involved in the preparation and implementation of GEF funded projects and activities.

Furthermore these evaluations are conducted to bring to the attention of Council different experiences and lessons on how the GEF is implemented at the national level from a wide variety of countries. CPEs do not aim at evaluating the performance of GEF Agencies, national entities (agencies/departments, national governments or involved civil society organizations), or individual projects.

Key Evaluation Questions

GEF Country Portfolio Evaluations are guided by a set of key questions that should be answered based on the quantitative and qualitative analysis of the evaluative information and perceptions collected during the evaluation exercise. These questions are:

Effectiveness, results and sustainability

- a) Is GEF support effective in producing results at the project level?
- b) Is GEF support effective in producing results at the aggregate level (portfolio and program) by focal area?
- c) Is GEF support effective in producing results at the country level?
- d) Is GEF support effective in producing results related to the dissemination of lessons learned in GEF projects and with partners?
- e) Is GEF support effective in producing results which last in time and continue after project completion?

Relevance

- a) Is GEF support relevant to the national sustainability development agenda and environmental priorities?
- b) Is GEF support relevant to the country development needs and challenges?
- c) Is GEF support relevant to national GEF focal area action plans?
- d) Is the GEF support in the country relevant to the objectives linked to the different Global Environmental Benefits (GEBs) in biodiversity, greenhouse gases, international waters, land degradation, and chemicals focal areas?
- e) Are the GEF and its Agencies supporting environmental and sustainable development prioritization, country ownership and decision-making process of the country?
- f) Is the country supporting the GEF mandate and focal areas programs and strategies with its own resources and/or with the support from other donors?

Efficiency

- a) How much time, effort and financial resources does it take to formulate and implement projects, by type of GEF support modality?
- b) What are the roles, types of engagement and coordination among different stakeholders in project implementation?
- c) Are there synergies among GEF Agencies in GEF programming and implementation?
- d) Are there synergies between national institutions for GEF support in programming and implementation?
- e) Are there synergies between GEF support and other donors' support?
- f) What role does Monitoring and Evaluation (M&E) play in increasing project adaptive management and overall efficiency?

Each of these questions is complemented by indicators, potential sources of information and methods in an evaluation matrix. A standard version of the CPE evaluation matrix is annexed to this document.

Scope and Limitations

CPEs will cover all types of GEF supported activities in the country at different stages of the project cycle (pipeline, on-going and completed) and implemented by all GEF Agencies in all focal areas, including applicable GEF corporate activities such as the Small Grants Programme and a selection of regional and global programs that are of special relevance to the country. However, the main focus of the evaluation will be the projects implemented within the country boundaries, i.e. the national projects, be these full-size, medium-size or enabling activities.³⁸

The stage of the project will determine the expected CPE focus (see Table 1).

Table 1. Focus of evaluation according to stage of project

Project Status	Focus		On a exploratory basis	
	<i>Relevance</i>	<i>Efficiency</i>	<i>Effectiveness</i>	<i>Results</i>
Completed	Full	Full	Full	Full
On-going	Full	Partially	Likelihood	Likelihood
Pipeline	Expected	Processes	Not applicable	Not applicable

CPEs are challenging as the GEF does not establish country programs that specify expected achievements through programmatic objectives, indicators, and targets.³⁹ In general, CPEs entail some degree of retrofitting of frameworks to be able to judge the relevance of the aggregated results of a diverse portfolio of projects. Accordingly, the standard CPE evaluation framework described here will be adapted along with the other relevant national and GEF Agencies' strategies, country programs and/or planning frameworks as a basis for assessing the aggregate results, efficiency and relevance of the GEF country portfolio.

GEF support is provided through partnerships with many institutions operating at many levels, from local to national and international level. It is therefore challenging to consider GEF support separately. The CPE will not attempt to provide a direct attribution of development results to the GEF, but address the contribution of the GEF support to the overall achievements, i.e. to establish a credible link between what GEF supported activities and its implications. The evaluation will address how GEF support has contributed to overall achievements in partnership with others, by questions on roles and coordination, synergies and complementarities and knowledge sharing.

The assessment of results will be focused, where possible, at the level of outcomes and impacts rather than outputs. Project-level results will be measured against the overall expected impact and outcomes from each project. Progress towards impact of a representative sample of mature enough projects (i.e. completed at least since 2 years) will be looked at through field Reviews of Outcome to Impact (ROtI) studies. Expected impacts at the focal area level will be assessed in the context of GEF objectives and indicators of global environmental benefits. Outcomes at the focal area level will be primarily assessed in relation to catalytic and replication effects, institutional sustainability and capacity building, and awareness. The inclusion of regional and global projects increases the complexity of this type of evaluations since these projects are developed and approved under different context (i.e. regional or global policies and strategies) than national countries. However, a representative number of regional and global projects will be included based on criteria such as the relevance of the regional project for the country, the implementation unit being located in the country, among others.

³⁸ The review of selected regional projects will feed in the aggregate assessment of the national GEF portfolio described above.

³⁹ Voluntary National Portfolio Formulation Exercises (NPFs) are being introduced in GEF-5. CPEs that will be conducted in countries having chosen to do an NPF will use it as a basis for assessing the aggregate results, efficiency and relevance of the GEF country portfolio.

The context in which these projects were developed, approved and are being implemented constitutes another focus of the evaluation. This includes a historic assessment of the national sustainable development and environmental policies, strategies and priorities, legal environment in which these policies are implemented and enforced, GEF Agencies country strategies and programs and the GEF policies, principles, programs and strategies.

Methodology

CPEs will be conducted by staff of the GEF Evaluation Office and national and international consultants, i.e. the Evaluation Team, led by a Task Manager from the GEF Evaluation Office.⁴⁰ The team includes technical expertise on the national environmental and sustainable development strategies, evaluation methodologies, and GEF. The consultants selected must qualify under the GEF Evaluation Office Ethical Guidelines, and are requested to sign a declaration of interest to indicate no recent (last 3-5 years) relationship with GEF support in the country. Operational Focal Points in the country are asked to act as resource persons in facilitating the CPE process by identifying interviewees and source documents, organizing interviews, meetings and field visits.

The methodology includes a series of components using a combination of qualitative and quantitative evaluation methods and tools. The expected sources of information include:

- Project level: project documents, project implementation reports, terminal evaluations, terminal evaluation reviews, reports from monitoring visits, and any other technical documents produced by projects;
- Country level: national sustainable development agendas, environmental priorities and strategies, GEF-wide, focal area strategies and action plans, global and national environmental indicators;
- Agency levels: country assistance strategies and frameworks and their evaluations and reviews;
- Evaluative evidence at country level from other evaluations implemented either by the Office, by the independent evaluation offices of GEF Agencies, or by other national or international evaluation departments;
- Interviews with GEF stakeholders, including the GEF Operational Focal Point and all other relevant government departments, bilateral and multilateral donors, civil society organizations and academia (including both local and international NGOs with a presence in the country), GEF Agencies, SGP and the national UN conventions' Focal Points;
- Interviews with GEF beneficiaries and supported institutions, municipal governments and associations, and local communities and authorities;
- Surveys with GEF stakeholders in the country;
- Field visits to selected project sites, using methods and tools developed by the Office such as the Guidelines for Terminal Evaluation Reviews (TER) or the Review of Outcomes to Impact (ROtI) Handbook;
- Information from national consultation workshops.

The quantitative analysis will use indicators to assess the relevance and efficiency of GEF support using projects as the unit of analysis (that is, linkages with national priorities, time and cost of preparing and implementing projects, etc.) and to measure GEF results (that is, progress towards achieving global environmental impacts) and performance of projects (such as implementation and

⁴⁰ Preference will be given to local consultants wherever possible.

completion ratings). Available statistics and scientific sources, especially for national environmental indicators, will also be used.

The Evaluation Team will use standard tools and protocols for the CPEs and adapt these to the national context. These tools include a project review protocol to conduct the desk and field reviews of GEF projects and interview guides to conduct interviews with different stakeholders.

The CPE will include visits to project sites. The criteria for selecting the sites will be finalized during the implementation of the evaluation, with emphasis placed on both ongoing and completed projects. The evaluation team will decide on specific sites to visit based on the initial review of documentation and balancing needs of representation as well as cost-effectiveness of conducting the field visits.

Quality assurance on evaluation methods, tools and processes used will be performed at key stages of the process (ToRs, draft and final CPE reports) by two external experts renowned in the international evaluation community and academia. To this end, memorandums of understanding will be prepared and signed by the Evaluation Office and appropriate institutions to which the experts belong.

Process and Outputs

Once the country is selected and has agreed to undergo the CPE, and other preparatory work and preliminary data gathering is undertaken, the CPE process includes the following steps:

- Initial GEF Evaluation Office visit to:
 - (1) Scope the evaluation, i.e. define precisely what the evaluation should cover, and identify through consultations with national stakeholders what key issues should be included in the analysis;
 - (2) Secure government support, in particular from GEF Operational Focal Points. The Focal Point will be requested to provide support to the evaluation such as: identification of key people to be interviewed, support to organize interviews, field visits and meetings, and identification of main documents;
 - (3) Conduct a first stakeholder consultation workshop to present evaluation and receive comments to develop country specific terms of reference;
 - (4) Conduct individual meetings as a follow up of the consultation workshop, to fine tune the information gathered during the initial stakeholder consultation workshop.
- Prepare country specific ToRs with annexed evaluation matrix, and submit it to peer reviewers for quality control, before finalization and disclosure;
- Launch the evaluative phase, collect information and review literature to extract existing reliable evaluative evidence;
- Prepare specific inputs to the CPE, including:
 - the **GEF Portfolio Database** which describes all GEF support activities within the country, basic information (GEF Agency, focal area, implementation status), project cycle information, GEF and co-financing financial information, major objectives and expected (or actual) results, key partners per project, etc.
 - **Country Environmental Legal Framework** which provides an historical perspective of the context in which the GEF projects have been developed and implemented. This document will be based on information on environmental legislation, environmental policies of each government administration (plans, strategies and similar), and the international agreements signed by the country presented and analyzed through time so to be able to connect with particular GEF support.
 - **Global Environmental Benefits Assessment** which provides an assessment of the country's contribution to the GEF mandate and its focal areas based on appropriate

indicators, such as those used in the System for the Transparent Allocation of Resources (STAR) (biodiversity, climate change and land degradation) and others used in projects documents.

- Conduct field studies (case studies, TERs, ROTIs, other) of completed national projects, selected in consultation with the Office staff, which will contribute to strengthen the information gathering and analysis on results.
- Conduct the evaluation analysis and triangulation of collected information and evidence from various sources, tools and methods. This will be done during a second mission in the country by the Office staff to consolidate the evidence gathered so far and fill in any eventual information and analysis gaps before getting to findings, conclusions and preliminary recommendations. During this mission, additional analysis, meetings, document reviews and/or field work might be undertaken as needed;
- Conduct a national stakeholder consultation workshop for the Government and national stakeholders, including project staff, donors and GEF Agencies, to present and gather stakeholders' feedback on the main CPE findings, conclusions and preliminary recommendations to be included in an Aid-Mémoire. The workshop will also be an opportunity to verify eventual errors of facts or analysis in case these are supported by adequate additional evidence brought to the attention of the Evaluation Team;
- Prepare and circulate to stakeholders and peer reviewers a draft CPE report, which incorporates comments received at the national stakeholder consultation workshop;
- Consider the eventual incorporation of comments received to the draft report and prepare the final CPE report, and submit it to peer reviewers for the last quality control.⁴¹

⁴¹ The GEF Evaluation Office will bear full responsibility for the content of the report.

ANNEX 2. INTERVIEWEES

UNDP Office

- Sudipto Mukerjee, Country Director
- Mohamed Abchir, Deputy Country Director
- Mariatu Swarray, Portfolio Manager, Environment and Disaster Management
- Saskia Marijnissen, Program Manager, Environment
- Abu-Bakar S. Massaquoi, National Coordinator, Small Grants Program

Government of Sierra Leone

- Kolleh Bangura, Director, Environmental Protection Agency
- Lahai Keita, Environment Officer, Project Manager SLM, Environment Protection Agency
- Mary Mye Kamara, Director Disaster Management, Office Office of National Security
- Victor H. O. Sawyerr, Deputy Director, Environmental Protection Agency (EPA), National Ozone Officer
- Mrs Haddijatou Jallow, Executive Chairperson, Environmental Protection Agency
- Mr Alie D. Jalloh, Head, Chemicals Control & Management, EPA
- Mr Steven Cyril Jusu, Chief Environment Officer, Ministry of Lands, Country Planning & the Environment
- Mr Alpha Bockari, Acting Director, MET Office, Ministry of Transport & Aviation
- Dr Raynold Johnson, University of Sierra Leone, National Coordinators, Climate Change Program
- Prof Ogunlade Davidson, University of Sierra Leone, National Coordinator, Climate Change Program
- Mr Alie D. Turay, Head Chemical Controls & Management , EPA
- Ms Kate Barnett, Asst Director & Head, Conservation & Wildlife Unit, Forestry Division, MAFFS

IFAD

- Michael Kouda, International Consultant, Agriculture, Environment, Water Resources Management and Remote Sensing, IFAD Supervision Mission
- Naoufrl Telahigue, Program Manager, GECC, IFAD Supervision Mission
- Ms Vasiliki Klaasen, FAD Supervision mission
- Mr Mohamed Tejan Kella, Project Manager, IFAD Projects Office
- Mr Borley Sillah, M&E Assistant, IFAD Projects Office

Local Communities

- Pa Sorie Conteh, Acting Paramount Chief, Makari-Gbanti Chiefdom
- Mr Usman Wurie Sesay, Asst Regional Coordinator, PASACOFAS
- Pa Abdulai Conteh, Headman, Makari Village
- William Kamara – SLM Makari Site Land Owner
- Baba Mansaray/ John Kamara, Fire Guard, Makari Site
- Pa Sorie Bangura/ Mr Usman Bangura, Committee Members, Makari Site
- Sgt 249 Lansana Bangura, National Fire Force, Makeni
- Mr Mohamed Kamara, Field Officer, Makoth Site, Green Scenery
- Mr Edie Sesay, Project Animator, Makoth Site, Green Scenery, Makeni
- Mr Abdulai bangura/ Pa Santigie Sesay/ Mr Abu Kargbo/ Mrs Ayi Sesay/ Mrs Kadie Bruyah/ Mrs Miatta Kamara/ Mr Moses Kargbo, Fire Guards, Makoth Site
- Paramount Chief Kande Sei II, Gbendembu Ngowahun Chiefdom

- Amadu Dante Toure, Principle, Government Technical Institute, Maburka

ANNEX 3. SITES VISITED

1. Sustainable Land Management Project – Makari Pilot Site, Makari-Gbanti Chiefdom, Bombali District
2. Sustainable Land Management Project – Makoth Pilot Site, Makari-Gbanti Chiefdom, Bombali District
3. Sustainable Land Management Project – Gbendembu Ngowahun Pilot Site, Gbendembu Ngowahun Chiefdom, Bombali District

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