COUNTRY

PORTFOLIO

EVALUATION

Eritrea (1992–2012)

Evaluation Report

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GLOBAL ENVIRONMENT FACILITY

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GEF Country Portfolio Evaluation: Eritrea (1992–2012)

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Evaluation Report No. 101

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Contents

TABLES

Foreword

The Eritrea Country Portfolio Evaluation is one of three country-level evaluations that examine Global Environment Facility (GEF) support in Sub-Saharan Africa during the fifth GEF replenishment period. The GEF has been active in Eritrea almost since its inception, although programming has not been continuous.

Eritrea was selected primarily on the basis of its having a comparatively diverse portfolio for a least developed country emerging from a postconflict state. The Eritrea portfolio covers all GEF focal areas with a pronounced focus on biodiversity. It includes several completed and ongoing projects, as well as those on the verge of implementation.

Eritrean stakeholders specifically asked the evaluation to investigate whether GEF support had contributed not only to environmental benefits but also to sustainable livelihoods. The evaluation found strong links in this regard, particularly in reducing the adverse impacts of land degradation and in contributing to community benefits throughout the GEF portfolio—including through projects classified as biodiversity and particularly through the fairly recent, but very popular, Small Grants Programme (SGP).

The degree of country ownership over the GEF portfolio was demonstrated with a higher than usually seen level of nationally driven projects, as the large majority of country GEF projects originated from existing initiatives or Eritrean institutions.

Representatives from various stakeholder groups and institutions involved in GEF projects in the country discussed the evaluation findings in September 2013 in Asmara. During the workshop, the evaluation's context and methodology were presented, as well as its preliminary findings and emerging recommendations. A very fruitful open forum discussion followed.

The preliminary findings of the evaluation were presented to the GEF Council in May 2014. These findings were included in the Annual Country Portfolio Evaluation Report 2014, which synthesized the main conclusions and recommendations from the GEF Independent Evaluation Office's country-level evaluation work in Sub-Saharan Africa. Based on that report's recommendations, the GEF Council requested the GEF Secretariat to explore and pursue, where appropriate, the use of established SGP country programs as service providers to implement community-level activities for larger GEF full- and medium-size projects.

Through this report, the GEF Independent Evaluation Office intends to share the lessons from the evaluation with a wider audience. The Eritrean government response to the evaluation is included as annex A and a statement from the national independent peer review panel is included as annex B.

I would like to thank everyone who actively supported this evaluation. It was conducted and completed when Rob D. van den Berg was Director of the GEF Independent Evaluation Office. Final responsibility for this report remains firmly with the Office.

Juha I. Uitto
Director, GEF Independent Evaluation Office

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This report is the result of a collective effort. Baljit Wadhwa, Senior Evaluation Officer in the Independent Evaluation Office of the Global Environment Facility (GEF) and Task Manager for the Eritrea Country Portfolio Evaluation, provided overall leadership to the study.

The Office was supported by a team of national evaluators from the Economic and Social Council (ECOSOC) led by Tesfamariam Tekie and composed of Weldeselassie Okubazghi, Weldeselassie Tewelde, and Mulubrham Yohannes Mehreteab. Simon Blower and Sara El Choufi of the GEF Independent Evaluation Office served as research assistants.

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Abbreviations

CBD	Convention on Biological Diversity
CEO	Chief Executive Officer
CMIB	Conservation Management of Eritrea's Coastal, Marine and Island Biodiversity
CO_2	carbon dioxide
CPE	country portfolio evaluation
DOE	Department of Environment
ECOSOC	Economic and Social Consultancy
FAO	Food and Agriculture Organization of the United Nations
FSP	full-size project
GDP	gross domestic product
GEF	Global Environment Facility
GHG	greenhouse gas
IFAD	International Fund for Agricultural Development
M&E	monitoring and evaluation
MOLWE	Ministry of Land, Water and Environment
MOMR	Ministry of Marine Resources
MSP	medium-size project
NAP	national action program
NAPA	national adaptation program of action
NBSAP	national biodiversity strategy and action plan
NCSA	national capacity self-assessment
NGO	nongovernmental organization
NIP	national implementation plan
ODS	ozone-depleting substances
PDF	project development facility
PPG	project preparation grants
PMIS	Project Management Information System
POP	persistent organic pollutant
RAF	Resource Allocation Framework
ROtI	review of outcomes to impact
SGP	Small Grants Programme
SLM	sustainable land management
STAR	System for Transparent Allocation of Resources
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNIDO	United Nations Industrial Development Organization

All dollar amounts are U.S. dollars unless otherwise indicated.

1. Main Conclusions and Recommendations

1.1 Background

Country portfolio evaluations (CPEs) are one of the main evaluation streams of work of the Global Environment Facility's (GEF's) Independent Evaluation Office.[1] By capturing aggregate portfolio results and performance of the GEF at the country level, CPEs provide useful information for both the GEF Council and the beneficiary countries.

The overall purpose of CPEs is to provide the GEF Council and the relevant national governments with an assessment of the results and performance of GEF-supported activities at the country level, and of how these activities fit into national strategies and priorities as well as within the global environmental mandate of the GEF.

GEF-eligible countries are chosen for portfolio evaluation based on a selection process and set of criteria that includes the size, diversity, and maturity of their portfolio of projects (GEF IEO 2010). Among other considerations, Eritrea was selected because it is part of Sub-Saharan Africa and is a least developed country recently emerging from a fragile and conflict situation. It has a comparatively large, diverse, and mature portfolio emphasizing climate change and biodiversity and featuring high levels of cofinancing; its GEF-5 (2010–14) System for Transparent Allocation of Resources (STAR) allocation is flexible.[2] The Eritrea portfolio includes several completed and ongoing projects as well as those on the verge of implementation.

Eritrea is situated in an arid/semiarid region of Sub-Saharan Africa. After a war lasting approximately 30 years, it gained its independence in 1991. It has a land mass of about 124,300 km^2; this includes approximately 390 islands, the most prominent of which are the Dahlak Archipelago and several of the Hanish Islands. The country's northeastern and eastern parts have an extensive coastline spanning some 1,900 km along the Red Sea directly across from Saudi Arabia and the Republic of Yemen. It shares borders with Sudan to the north and west, Ethiopia to the south, Djibouti to the southeast, and the Red Sea to the east. The capital of Eritrea is Asmara.

Despite its small land area, Eritrea has diverse climate zones, mainly due to its great topographic variation. Geographically, the country is divided into the central highlands (2,000 m above sea level), the midlands (1,500–2,000 m above sea level), and the lowlands (less than 1,500 m above sea level). The country's rainfall patterns are affected by this topographic variation; annual rainfall varies from about 100 mm in the lowlands

[1] A complete list of countries that have undergone CPEs is on the Office website.

[2] Sixty-three countries with allocations of up to $7 million have been granted flexibility in the use of their GEF-5 STAR allocations. This flexibility allows them to combine allocations across focal areas as appropriate for achieving focal area objectives.

to about 700 mm in the central highlands. Eritrea is divided into six agro-ecological zones: moist highlands, arid highlands, subhumid highlands, moist lowlands, arid lowlands, and semidesert. Variation in mean annual temperature ranges from 15°C in the moist and arid highlands to 32°C in the semidesert (Kayouli, Tesfai, and Tewolde 2006).

Because Eritrea is situated in arid and semi-arid areas, the advancement of the Sahara Desert is affecting the country. There are several causes for this desertification, including low precipitation, high evaporation and transpiration, deforestation, mismanagement of natural resources, overgrazing, and climate change. The low level of public knowledge concerning environmental management is another factor. Nonetheless, the country is making great efforts to combat desertification as a major environmental problem.

1.2 Objectives, Scope, and Methodology

The Eritrea CPE was conducted between February and September 2013 by an evaluation team comprised of staff from the GEF Independent Evaluation Office and a national team of consultants led by the Economic and Social Council (ECOSOC). A peer review panel provided feedback to the team on quality aspects related to evaluation products.

The aim of the Eritrea CPE was to provide the GEF Council and the government of Eritrea with an assessment of the results and performance of GEF-supported activities at the country level, and of how these activities fit with national strategies and priorities as well as within the mandate of the GEF. The CPE focuses on the 12 national projects implemented in Eritrea since 1992 with $22.6 million in GEF grants. The evaluation team used standardized GEF tools and project review protocols for CPEs, adapting these to the Eritrean context. Projects for field visits were selected based on their completion status; annex F lists the field sites visited during the evaluation.

Triangulation was a key element of the evaluation analysis, whereby the findings from the literature review, the country environmental legal framework developed for Eritrea, the global environment benefits assessment, the project review protocols, and the stakeholder consultations and interviews were assessed using the main evaluation indicators of effectiveness, results, sustainability, relevance, and efficiency.

As part of the evaluation, two review of outcomes to impact (ROtI) studies were conducted on the completed Wind Energy Applications project (GEF ID 1136) in the port city of Assab and the completed Conservation Management of Eritrea's Coastal, Marine and Island Biodiversity (CMIB) project (GEF ID 411). Each ROtI was preceded by constructing a model theory of change for the project.

Several sources of information at different levels both inside and outside of Eritrea were used, and over two dozen stakeholders and officials were interviewed and consulted during the evaluation (annex E). These included officials of the Ministry of Land, Water and Environment (MOLWE); the Ministry of Agriculture; the Ministry of Marine Resources (MOMR); regional and subregional authorities and officials; the United Nations Development Programme (UNDP) and the Food and Agriculture Organization of the United Nations (FAO); and the GEF operational focal point. Additionally, three focus group discussions were held with Small Grants Programme (SGP) beneficiaries and local communities.

Since 1992, the GEF has provided about $22.7 million in support for Eritrea and has mobilized about $41.6 million in cofinancing. With this funding, the GEF has supported 12 national projects—4 in biodiversity, 3 in climate change, 2 in land degradation, 2 in persistent organic pollutants (POPs), and 1 multifocal enabling activity. The biodiversity and land degradation focal areas account for the largest funding shares: about 50 percent and 27 percent of total GEF support, respectively (table 1.1).

Of the 12 national projects, 6 are enabling activities, all of which have been completed; the remainder are full-size projects (FSPs). Of these six FSPs, two have been completed, three are ongoing, and one is in the pipeline (table 1.2). UNDP is the GEF Agency implementing the largest number of projects in Eritrea (six), followed by the World Bank (two projects). Four other Agencies—FAO, the International Fund for Agricultural Development (IFAD), the United Nations Environment Programme (UNEP), and the United Nations Industrial Development Organization (UNIDO)—implement one project each (table 1.3). However, in terms of funding, the picture is slightly different. UNDP projects account for approximately 66 percent of GEF funding, IFAD for 19 percent, and FAO for 10 percent; projects implemented by the other three Agencies together account for 8 percent.

TABLE 1.1 GEF Support to National Projects in Eritrea by Focal Area

Focal area	No. of projects	GEF grant ($)	Cofinancing ($)	% GEF support	% cofinancing support
Biodiversity	4	11,309,000	11,410,400	50.0	27.5
Climate change	3	2,454,411	2,953,136	10.8	7.1
Land degradation	2	6,170,000	23,928,000	27.3	57.6
POPs	2	2,496,500	3,244,153	11.0	7.8
Multifocal	1	198,000	20,000	0.9	0.0
Total	12	22,627,911	41,555,689	100.0	100.0

TABLE 1.2 GEF Support to National Projects by Modality

Project modality	No.	GEF grant ($)	Cofinancing ($)	Percentage of GEF grant	Percentage of cofinancing	Cofinancing ratio
Enabling activity	6	1,493,350	87,600	6.6	0.2	0.03
Full-size project	6	21,134,561	41,468,089	93.4	99.8	1.96
Total	12	22,777,911	41,555,689	100.0	100.0	

TABLE 1.3 GEF Support to National Projects in Eritrea by Implementing Agency and Project Status

	Completed			Ongoing			Pipeline			Total		
Agency	No.	GEF grant ($)	Cofinancing ($)	No.	GEF grant ($)	Cofinancing ($)	No.	GEF grant ($)	Cofinancing ($)	No.	GEF grant ($)	Cofinancing ($)
UNDP	4	7,440,411	3,793,136	1	1,820,000	2,250,000	1	5,878,000	10,555,400	6	15,138,411	16,598,536
UNEP	1	198,000	20,000	0	0	0	0	0	0	1	198,000	20,000
WB	2	445,000	15,000	0	0	0	0	0	0	2	445,000	15,000
FAO	0	0	0	1	2,150,000	3,209,153	0	0	0	1	2,150,000	3,209,153
IFAD	0	0	0	1	4,350,000	21,678,000	0	0	0	1	4,350,000	21,678,000
UNIDO	1	346,500	35,000	0	0	0	0	0	0	1	346,500	35,000
Total	8	8,429,911	3,863,136	3	8,320,000	27,137,153	1	6,028,000[a]	10,555,400	12	22,777,911	41,555,689

NOTE: WB = World Bank.
a. This amount includes a $150,000 project preparation grant.

Since 2010, the SGP in Eritrea has received financial support totaling $1,034,998, covering the focal areas of land degradation, climate change mitigation, and biodiversity (figure 1.1). It leveraged an intended $433,883 in cash cofinancing and $1,522,323 in in-kind resources for a total of 22 projects executed by civil society and community-based organizations. The SGP in Eritrea has predominantly supported land degradation projects, with total grants of $607,316, accounting for 59 percent of the portfolio.

1.3 Limitations

The evaluation experienced a number of limitations, some of which are common to CPEs, others of which were country specific. Evaluation of overall GEF results has been primarily undertaken on the basis of project-specific evidence, triangulated with an assessment of aggregate achievements based on stakeholder inputs, new field data, and the evaluation team's judgment.

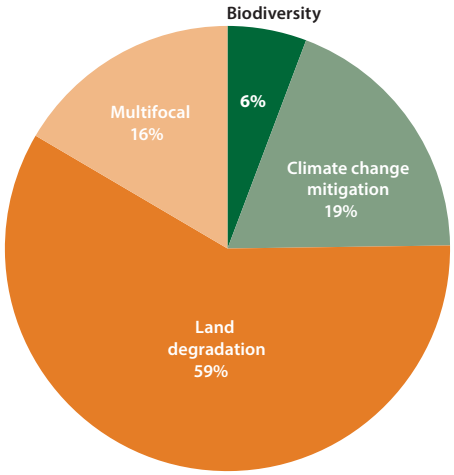
The primary limitation involves attribution. While there are relatively few national and international stakeholders active in environmental management in Eritrea, caution must be exercised in attributing any systemic changes to interventions by the GEF. Further, assessments of contribution need to take realistic account of the number and scale of other synergistic national and international inputs. This is particularly true with regard to improvement of land degradation.

GEF projects in Eritrea have been implemented over a 20-year period, and the evaluation team experienced difficulty in obtaining readily available and accurate qualitative and quantitative data on some of the GEF's earlier support. Furthermore, the quality of evaluative evidence—particularly quantitative trends data, such as changes in forest cover, coastal lines, etc., over time—relevant to completed projects is variable. Moreover, Eritrea's 30-year war for independence interrupted continuous data collection efforts, leaving a gap between information collected prior to 1960 and that collected since 1991 and making it difficult to distinguish between what had been recorded as present historically and what may actually be present today. This gap posed a significant challenge to building a comprehensive overview of results and contribution.

Several CPE methods and approaches such as ROtI analysis, systematic triangulation, and country environmental legal framework and global environmental benefit analysis have been designed to address such limitations. These methods were used by the national evaluation team in Eritrea to arrive at findings and conclusions based on a systematic review of changes in environmental status and stresses over the course of GEF activities—often in the absence of baseline data.

The nature and small size of the GEF portfolio in Eritrea, while mature and diversified, does make for some limitations in the aggregate results. To date, half of the portfolio has been enabling activities, which have different intended results and impact than FSPs and medium-size projects (MSPs).

FIGURE 1.1 **Distribution of SGP Portfolio in Eritrea by Focal Area**



1.4 Conclusions

EFFECTIVENESS, RESULTS, AND SUSTAINABILITY OF GEF SUPPORT

CONCLUSION 1: **Overall, GEF-supported projects have been effective in producing satisfactory results at the project and national levels.**

Half of the GEF portfolio under review in Eritrea has been enabling activities. These activities, conducted across all focal areas, have enabled priorities to be defined and a focus set on commitments to the various conventions—including on biodiversity via the National Biodiversity Strategy and Action Plan (NBSAP) and First National Report (GEF ID 137), on climate change adaptation via Development of a National Adaptation Program of Action (NAPA) (GEF ID 1959), and on POPs via creation of a national implementation plan (NIP) for their management under Enabling Activities to Facilitate Early Action on the Implementation of the Stockholm Convention on POPs (GEF ID 3139). The enabling activities have also enhanced the environmental knowledge, understanding, and capabilities of personnel at all ranks within the executing ministries and communities.

Two projects have been completed within the Eritrea portfolio. One, the CMIB project, received a terminal evaluation report rating of moderately unsatisfactory, even though its project outcomes were rated as likely to be sustainable; this rating reflects the quality of the project outcomes themselves and the quality of project execution. The other completed project, Wind Energy Applications, received an outcome rating of satisfactory.

Supervision missions were recently conducted for two ongoing projects: Catchments and Landscape Management (GEF ID 3362) and the Sustainable Land Management (SLM) Pilot Project (GEF ID 3364). Both projects—part of the GEF's Strategic Investment Program for SLM in Sub-Saharan Africa—were rated as satisfactory and found to be achieving both their global environmental and developmental objectives.

CONCLUSION 2: **Eritrea has used integrated approaches to tackling global environmental issues, although they have not been classified as such.**

Eritrea has had a very limited number of overt multifocal projects, comprising an enabling activity—the National Capacity Self-Assessment (NCSA) for Global Environmental Management (GEF ID 1584)—and a global MSP—Piloting Integrated Processes and Approaches to Facilitate National Reporting to Rio Conventions (GEF ID 3707). The country's GEF portfolio has, however, inherently and consistently addressed more than one focal area. For example, its land degradation projects have an element of agro-biodiversity conservation as well as of climate change mitigation; similarly, the CMIB project addressed coastal land degradation.

While results have been found at the individual project level, the portfolio has been less effective at instigating systemic or regional-level environmental changes. The issue of land degradation is of particular importance and priority in Eritrea. The current allocation system does not allow for more resources to be dedicated specifically to land degradation. Hence, an integrated multifocal approach to tackling land degradation and other global environmental issues could generate more overt synergies between the institutions that execute the projects—contributing to more focal area synergy and enhanced environmental status.

CONCLUSION 3: **GEF projects have enhanced institutional and individual capacity at the national and local levels.**

A central part of the GEF's approach in any country is to enhance human and institutional capacities through its various projects and programs, which operate in synergy with government institutions.

GEF support has been effective in building the capacity of individuals and institutions at the national, regional (*zoba*), and community levels in Eritrea. The enabling activities and some of the FSPs in the portfolio have had significant capacity-building elements, including training specific sets of stakeholders such as extension workers, local administrators, and policy makers; conducting subject matter workshops and seminars; and providing environmental training to beneficiaries such as farmers and pastoralists.

Eritrea's 2002 NCSA highlighted capacity gaps in the four focal areas of biodiversity, climate change, land degradation, and POPs; as well as with regard to overall national environmental management, including the preparation, implementation, and monitoring and evaluation (M&E) of GEF programs and projects.

Against those capacity constraints, and over a decade later, this CPE found tangible evidence of institutional and individual capacity development in each of the focal areas. These capacities are highlighted further in chapter 5 under the discussions for each focal area. Institutional and capacity enhancements include the knowledge gained through the CMIB project being applied by MOMR staff to monitor changes in marine and coastal biota. In particular, training provided on diving has enabled local staff to see deepwater biota and track changes in how these have been affected/threatened by the rapid, largely uncontrolled, development of the country's fisheries and tourism infrastructure. The Department of Energy within the Ministry of Energy and Mines has personnel and systems ready to review renewable energy providers of on- or off-grid electricity.

The ability of local administrators, farmers, and women-headed households to implement natural resource management methods has been encouraged after training delivered by the SLM Pilot Project. And the POPs project Demonstrating Cost-Effectiveness and Sustainability of Environmentally Sound and Locally Appropriate Alternatives to DDT for Malaria Control in Africa (GEF ID 1331) has been cited by key informants as vital to the national knowledge base of harmful substance storage and disposal.

CONCLUSION 4: **Several GEF-supported activities have contributed toward environmental benefits by fostering sustainable livelihood and community-based approaches.**

The evaluation team found evidence of tangible local and national environmental benefits from GEF-supported projects. These benefits included maintenance of coral, turtle, and seagrass species endemic to the Red Sea; protection of unique marine and terrestrial ecosystems; and restoration of degraded lands and prevention of further land degradation. These benefits will potentially lead to sustained improvement and replenishment of global environmental benefits.

The GEF-supported projects in Eritrea have also been designed to address the needs of local communities by promoting sustainable livelihoods. In this regard, the primary target groups are those communities that depend on natural resources for their survival but have limited access to such resources. Such groups are the ones primarily affected by the adverse impacts of land degradation, as they derive their livelihoods mainly from public forests and communal rangelands, and operate on lands that are prone to erosion.

Biodiversity

Eritrea's biodiversity resources have not yet been exhaustively studied and documented. The conservation status of most species at the genetic, species, and ecosystem levels is not known in detail. After independence, the MOLWE Department of Environment (DOE) and other line ministries made considerable efforts to conserve biodiversity resources, despite extensive human, institutional, and financial resource shortages. Although national reporting of improvements on biodiversity is incomplete, the evidence reviewed and gathered

in this evaluation indicates that, overall, GEF projects are likely to affect the sustainable use of biodiversity resources—and hence improved livelihood systems for the local population.

The four national GEF biodiversity projects have supported Eritrea's efforts to mainstream biodiversity into productive landscapes, which is particularly important as food security remains a national priority. Despite the constraints in national reporting, there are examples of conservation and sustainable use of biodiversity resources in several parts of the country. Biodiversity considerations are also integrated into agricultural and forest initiatives; this integration extends into the GEF land degradation portfolio as well. For example, in the SLM Pilot Project and several SGP projects, area enclosures implemented by communities in the Serejeka, Mekereka, Una Lalia, Tearishe, and Dara village areas have resulted in the natural regeneration of indigenous threatened species of fauna and flora including the African olive, the sand olive, the African juniper, and the woody shrub *Rhus natalensis*. Eritrea is also recognized as a center of origin and center of diversity for a number of crops, notably cereals such as sorghum, wheat, and barley. There is a rich diversity of crop landraces still available in Eritrea.

The bordering Red Sea is a hot, nearly enclosed, saline body of water containing over 1,100 fish species and 44 genera of hard coral, resulting in one of the highest recorded levels of endemism and species diversity for a water body.[3] Around 18 percent of fish species and 20 percent of coral species are reported to be endemic to these waters. The CMIB project established a research unit within the MOMR which today exchanges valuable findings with universities and other institutions around the world on sea and coastal migratory birds, nesting grounds of various turtle species, coral reef species, seagrass, and dugongs, among others.

Local communities are well aware of the potential social and economic benefits generated from the various conservation activities. However, project outcomes related to poverty reduction and improved livelihoods have not been monitored and will only be realized over time.

Climate Change

Eritrea has filed its first and second national communications to the United Nations Framework Convention on Climate Change (UNFCCC). The GEF supported this effort through the Enabling Eritrea to Prepare Its First National Communication in Response to Its Commitments to UNFCCC project (GEF ID 278). From a review of the two communications, it is obvious that Eritrea depends heavily on biomass sources for its energy (MOLWE 2001, 2012).

Eritrea is an agrarian society, with the vast majority of the population directly dependent on land resources for its livelihood. Greenhouse gas (GHG) emissions are largely the result of agricultural activities, deforestation activities, and methane emissions from livestock. Stakeholders reported that Eritrea had once hosted thickly vegetated ecosystems featuring diversified tree species. Heavy dependence on biomass to meet household energy requirements as well as clearing for agriculture have had an adverse effect on the forest cover of the parts of the country under review. Moreover, drought conditions that have prevailed in Eritrea for decades have caused the vegetation cover to dwindle drastically. This situation has in turn led to land degradation, diminishing biodiversity, and reductions in grain yields and livestock production.

The Wind Energy Applications project is the only climate change FSP that has been implemented in the country. The project served as a pilot to demonstrate the potential for wind energy generation in Eritrea to replace wood and biomass consumption. Although the project received a

[3] Source: Operationalization of Protected Areas Management Systems of Eritrea Project Document.

satisfactory rating at completion, operation of its off-grid component was not successful. Regarding the on-grid component, it was determined during the ROtI exercise that only one of the three turbines installed to generate power for 20 percent of the households in Assab remained operational. Difficulties in transporting fuel from the capital city of Asmara to Assab hampered full operation of the turbines. Thus, there is an obvious potential for scale-up, particularly in the underserved rural areas of Eritrea that are still off the grid and have high energy access needs.

Vulnerability to climate change is addressed in Eritrea's NAPA document, which was prepared with support from the GEF Least Developed Countries Fund. The NAPA serves as a reference for those who are directly concerned with the planning and implementation of all environmental programs and projects for adaptation to climate change.

An integrated approach to adaptation is taken in the SLM Pilot Project and in the SGP portfolio, with activities directed at rehabilitating degraded lands and enhancing land productivity also having GHG mitigation and adaptation benefits. These benefits are expected to be enhanced through a recent project financed with support from the Adaptation Fund and to be implemented by UNDP. The $6.5 million Climate Change Adaptation Programme in Water and Agriculture will be focused in the Anseba region with the aim of increasing the availability of water through floodwater harvesting and groundwater recharge.

Land Degradation

In Eritrea, land degradation is one of the overriding factors affecting biodiversity and climate change. GEF support has been effective in drafting national action plans and legal frameworks relevant to land degradation, including the NAPA, the National Action Programme for Eritrea to Combat Desertification and Mitigate the Effects of Drought (NAP) (MOA 2002), and the national land use plan to arrest land degradation and increase land use capabilities. Reduced stress and improved soil, land, and water conditions are long-term impacts of arresting land degradation. Besides land degradation measures, the capacity of communities to use drip irrigation in small farms, to build bench terraces, and to manage nurseries has also been enhanced, as observed and reported by stakeholders as well as by communities engaged in SLM subprojects.

The GEF's land degradation portfolio has included a community component dedicated to improved energy-saving stoves. These stoves have been constructed by and have largely benefited women. They have achieved significant scale-up among Eritrean households in village communities through the SGP.

Additionally, GEF-supported projects to combat land degradation have demonstrated solid results through activities such as reforestation and enhancing farm productivity.

Persistent Organic Pollutants

GEF support, in cooperation with the Ministry of Agriculture and FAO, has enabled Eritrea to undertake a national inventory to identify its stores of POPs and to initiate plans for priority safeguarding, including disposal. In all, 21 contaminated sites were identified, having a total area of 1,400 m^2. Resultant actions have contributed to environmental protection and to making the surrounding areas safer for human habitation and well-being.

Small Grants Programme

The SGP was introduced in Eritrea in 2010 to facilitate innovative approaches in community-based environmental programs (UNDP 2011). Interestingly, the program has become a mechanism to scale up tested and known approaches to community environmental improvements, particularly those first tried in the SLM Pilot Project. The SGP is thus considered one of the most relevant initiatives in the country, due to its ability to enhance

the technical capacity of local communities and to enable them to continue similar activities in areas adjacent to FSPs.

Eritrea's SGP portfolio has contributed to communities possessing a better understanding of climate change issues and of the importance of sustainable management of natural resources to improvements in their livelihood and health status. Through SGP projects, women in beneficiary communities have been trained in how to construct energy-saving stoves; consequently, nearby households have made their own stoves with no outside support. The improved traditional stove projects have enabled local communities to integrate traditional knowledge in the construction of well-designed and appropriate technologies. These approaches are also featured in the community components of the country's land degradation FSPs. SGP documentation suggests that many completed SGP projects have been handed over to local communities.

CONCLUSION 5: **Completed GEF projects have inadequately addressed postcompletion sustainability strategies.**

A challenge for the government of Eritrea has been to continue supporting and scaling up GEF projects once GEF support has ended. Despite the government's efforts to sustain the outcomes of completed FSPs, much often remains to be done to maintain these outcomes over time. For example, maintaining the biodiversity stocktaking assessment introduced by the NCSA requires periodic field monitoring and terrestrial, marine, and agrobiodiversity research, which the government can barely afford.

In general, the GEF exit strategies put in place have not adequately addressed the financial, technical, and managerial sustainability of project outcomes so that impact might later be achieved. Nonetheless, there has been a readiness on the part of all relevant ministries to integrate responsibilities and necessary engagement into their work programs—including engagement with communities, maintenance of equipment, capacity improvements, etc.—to ensure the longevity of results of the completed GEF projects.

RELEVANCE

CONCLUSION 6: **GEF-supported projects were relevant to Eritrea's sustainable national development needs, environmental priorities, and national focal area strategies and action plans.**

GEF-supported projects have contributed to the preparation of national plans in the environmental sector and, overall, have been relevant to the country's national environmental legal framework and sustainable development agenda.

At present, there is no formal environmental legislation in Eritrea, although the DOE is preparing an environmental proclamation. The absence of formal legislation does not mean that the environment has no legal status. The country's 1995 National Environmental Management Plan has served as a blueprint for subsequent action in the environmental sector and lays out a strategy of action for conservation activities. Its guiding principles include recognition of the strategic importance of conserving natural resources and maintaining environmental quality as part of national economic growth and development processes, while ensuring local involvement and equity in environmental resources (GOE 1995). It also established the precedent for subsequent GEF-supported projects to have the same overarching goal of safeguarding the environment and enabling Eritrea to meet its national and global environmental obligations through implementation of the various conventions.

GEF projects in the **climate change** focal area have been relevant to Eritrea's environmental priorities. The first such project supported preparation of Eritrea's national communications to the UNFCCC; this included development of a national GHG emissions inventory and identification of

national programs and projects for climate change mitigation and adaptation. The national communications also provided the basis for calculation of the country's GHG emissions targets.

While the Wind Energy Applications project did not result in the expected GHG reduction outcomes, the project was relevant in piloting renewable energy sources. Alternative energy sources contribute to improved health by lowering indoor and outdoor air pollution; reducing the burden on women and young children, many of whom spend hours collecting and carrying firewood; and freeing up time for income generation. Energy is also a critical input for providing a host of social services, from education and health care to communications. The Wind Energy Applications project helped put in place the policy framework that will allow a renewable energy market to develop in Eritrea. The project's promotion of the development of alternative and renewable energy production to reduce the use of biomass as an energy source at the household and industrial levels, particularly in areas with no access to pre-existing grids, remains relevant.

The two **land degradation** FSPs (Catchments and Landscape Management and the SLM Pilot Project) were developed in 2002 when Eritrea launched its NAP. These projects address the interlinked problems of poverty, food insecurity, land degradation, and biodiversity losses through the development and promotion of innovative SLM technologies and land use planning approaches. Numerous relevant contributions to the national land degradation agenda have been made by these two GEF-supported initiatives, together with other biodiversity and SGP projects. Nonetheless, promulgation of Land Law No. 58 of 1994, empowering communities in land use and land management aspects, has yet to be approved.

Eritrea received GEF funds to put in place its NBSAP, which was adopted in July 2000. Formulated with the active participation of stakeholders, the **biodiversity** plan comprised four major components: (1) a country biodiversity stocktaking assessment, which included plans for expansion of improved biomass-saving stoves, initiating the establishment of CMIB baseline data, developing an integrated coastal area management proclamation, and assessing capacity-building needs for biodiversity; (2) a country biodiversity economic assessment; (3) assessment of national policies, and of the legislative and institutional frameworks; and (4) preparing the first national report to the Convention on Biological Diversity (CBD).

The goals of the NBSAP are to restore, conserve, and manage overall Eritrean biodiversity so it contributes to sustainable national economic development (DOE/MOLWE 2000). The plan comprises a comprehensive set of actions to be undertaken in three core areas of biodiversity: terrestrial, marine, and agricultural.

Eritrea is particularly vulnerable to climate change, but aside from its NAPA development project, it has not pursued a Least Developed Countries Fund portfolio. One project, the Climate Change Adaptation Programme in Water and Agriculture, was recently funded through the Adaptation Fund and will be implemented by UNDP.

Going forward, several changes in the portfolio mix could be envisioned. For example, in its national communications to the UNFCCC in 2001 and 2012, the government of Eritrea identified a number of renewable energy sources. Wind and solar energy initiatives have been launched; these should be continued and expanded to cover other areas of Eritrea that have already been mapped out for potential wind power. Eritrea's position along a rift valley makes it an excellent candidate for geothermal energy exploration, as has been explored by the Ministry of Energy and Mines (Yohannes 2009). Even though land degradation pressures are intense, fuel costs are rising, and there is a general lack of access to energy in both urban and rural areas, the government has yet to substantially develop alternative energy sources.

CONCLUSION 7: **The government of Eritrea exhibits a high level of country ownership of and commitment to GEF-supported projects; however, governance aspects need to be considered when seeking to improve implementation of environmental legislation.**

GEF interventions have been strategically prioritized by the operational focal point, taking into account existing opportunities and constraints, relevance to the national agenda, and project objectives. GEF projects in Eritrea are found to originate within national agencies such as the DOE, the Ministry of Agriculture, and the Ministry of Energy and Mines. National institutions design projects that are consistent with country objectives and aligned to the operational strategies of the GEF focal areas; efforts are made to avoid unnecessary duplication of effort between focal areas.

As an indicator of ownership, cofinancing can signal the strength of the commitment of beneficiaries, GEF Agencies, and executing agencies to projects. Furthermore, cofinancing helps ensure the success and local acceptance of projects by linking them to sustainable development. The evaluation found that Eritrea has been successful in mobilizing its own resources as well as cofinancing from other organizations.

The amount of cofinancing for GEF projects can be considered satisfactory, although it is lower than that of larger recipient countries. GEF projects in Eritrea have leveraged about 65 percent in cofinancing, while cofinancing has averaged 85 percent in South Africa, and 84 percent in India (GEF IEO 2008, 2013). The land degradation focal area showed the greatest capacity to leverage funding, followed by POPs. UNDP, the top GEF Implementing Agency in Eritrea, provided the largest share of cofinancing to GEF-supported projects in the country.

Country ownership for SGP-supported projects is also strong and reflects the effectiveness they have demonstrated in a short time in enhancing interest in environmental issues among rural communities. As a result, community groups tend to show their readiness to make a worthwhile contribution in the future. Many of the groups that have received funding from the SGP have gone on to submit proposals for larger amounts of funding to other agencies. Of the total investment of $652,940 that was expended for SGP projects in Eritrea, 46 percent was cofinanced by UNDP, followed by the contribution from communities at approximately 36 percent. In terms of interventions, the improved traditional stove and solar-powered information technology system for schools accounted for one-third of the total funds expended (33 percent). The current level of contribution from community beneficiaries is a clear indication of local and national interest and ownership in GEF SGP projects.

At present, several key environmental items of legislation remain in draft form and have not been promulgated into legally binding acts. While environmental protection has not been overly hampered by the lack of a full policy framework, the evaluation notes that key enforcement tools are not in place to abate environmental degradation or to allow for further evolution in SLM, as would result from, for example, secure land tenure laws.

Governance has a strong effect on environmental actions and outcomes. Measures that strengthen the rule of law, transparency, and public participation may be just as—or more—important as specific environmental policies or projects in improving environmental outcomes. Thus, in addition to official endorsement of all elements of an environmental legal framework and developing capacities of environmental authorities and sector ministries, good governance is a key factor to assist with better environmental management in the country, leading to conservation of globally significant flora and fauna.

EFFICIENCY

CONCLUSION 8: Project design factors, particularly overly ambitious objectives, have often caused implementation overruns.

In Eritrea, all six FSPs have taken more than 18 months from work program entry to Chief Executive Officer (CEO) approval. For GEF-4 (2006–10), a 22-month standard was proclaimed for time elapsed between work program approval by the GEF Council and CEO endorsement for FSPs; for GEF-5, an 18-month standard has been instituted.

The CMIB project was supposed to close in 2003, but instead closed five years later in 2008. Similarly, the Wind Energy Applications project was supposed to close in 2007, but closed two years later in 2009. Eritrea's enabling activities have also run past their allotted times: three of five projects were delayed, the first by one year, and the other two by two years.

Many of Eritrea's projects feature an overly ambitious initial design—a factor that not only affects implementation but may also influence a project's ultimate sustainability. For example, the CMIB project originally attempted to cover the whole of Eritrea's Red Sea coast and its islands. While the scope was later revised for a more limited coverage, precious time and resources had been exhausted. According to stakeholders, the revised project could have given more consideration to postcompletion action plans; however, a strong community-based component has been a positive factor in maintenance of project outcomes.

The difficulty of understanding the concept and definition of cofinancing was cited by stakeholders as a barrier that cannot be met by some institutions and which contributes to delays. Project formulation processes for preparation of GEF projects were also perceived as complex and time-consuming.

CONCLUSION 9: Synergies and coordination in programming and implementation among GEF Agencies and Eritrean institutions, as well as among Eritrean institutions themselves, are limited.

The Eritrean operational focal point office has, on several occasions, chaired a steering committee to guide discussions on GEF portfolio formulation, SGP initiatives, etc. All GEF-supported projects have had national steering committees which were formed to guide the project management units as well as to set priorities for project activities.

While mechanisms for networking among GEF Agencies, national institutions, GEF projects, and other donor-supported projects and activities exist, they have not been fully effective in precipitating better synergies in GEF project programming and implementation. The potential for increased synergy and collaborative efforts among the agencies and national institutions involved in programming and implementation could be further realized.

Roles and areas of cooperation between the government and UNDP, the predominant GEF Agency in Eritrea, are clearly specified for interactions even beyond the GEF portfolio. While in practice the mechanisms are functioning adequately, Eritrean national institutions could be better informed of each other's relevant activities; also, there are few forums available for all interested parties to discuss the challenges of sustainable livelihoods, land degradation, and biodiversity loss.

For example, coordination of the country's two land degradation projects appears to have weaknesses at the national level. More synergies were visible at the regional level (i.e., between the line ministries and local administrations), but coordination between the various executing agencies and the operational focal point at the national level appears to be less transparent. There is a tendency for institutions to move ahead with their own agendas and to have no defined schedule of interagency meetings and contacts. Some recent improvements were noted, however, with institutions moving

toward greater mutual awareness and willingness to coordinate activities, although cases of ambiguity still exist.

Efforts have been under way to achieve more synergies across the various national executing institutions for GEF-supported activities.

CONCLUSION 10: **Because the M&E systems of a number of projects are weak, M&E is not contributing significantly to the efficiency and effectiveness of GEF support in Eritrea.**

The evaluation found that most GEF projects have M&E protocols in the form of project implementation reports and terminal evaluations. However, these were not always available within the GEF Project Management Information System (PMIS). Further, once the reports were compiled, a review concluded that monitoring information has not been adequately used to make timely corrections to problematic issues, especially those related to outcome sustainability. For example, the overly ambitious CMIB project was allowed to continue until close to its completion date before its parameters were redefined. Supervision reports for the Wind Energy Applications project did not record the inappropriate procurement of technical services, equipment, and supplies; this not only caused delays, but ultimately affected the establishment of the project's off-grid wind energy component. The executing institutions for GEF-supported programs in Eritrea have made progress in terms of establishing mechanisms for M&E; unfortunately, these institutions meet only infrequently to discuss procedural as well as operational matters related to GEF projects. Consequently, much remains to be done in terms of putting mechanisms and procedures into practice, as the record of results is not adequately shared and reported on regularly. Furthermore, in interviews, relevant government officials cited insufficient funds, a shortage in transport facilities, and limited human capacity as formidable constraints to putting effective M&E practices into operation.

1.5 Recommendations

TO THE GEF

RECOMMENDATION 1: **The GEF should encourage efforts to build capacity in M&E-related activities of the GEF operational focal point and national executing agencies.**

Capacity building is an ongoing process, and the GEF should continue to support capacity building through training, institutional strengthening, awareness raising, and—especially—knowledge-sharing mechanisms and management so as to share experiences across the different ecological regions of Eritrea.

M&E of the GEF portfolio in Eritrea is split among a few agencies and project management offices in national institutions. The disparate data and systems of these various entities do not allow for a holistic perspective on the overall status and results of the GEF portfolio in Eritrea. This fragmentation, combined with an overall lack of quantitative environmental data, makes accurate M&E of global environmental benefits difficult.

Currently, difficulties are reported regarding baseline information and the wording of indicators and outcomes. Further, adaptive decisions are often not made until a midterm review has been carried out, resulting in unjustifiable delays and faulty procurement. Greater knowledge of M&E activities in the national portfolio would ensure both the timely delivery of technical assistance and the timely release of funds to the executing agency; this in turn will increase implementation success and the likelihood of sustainability of project benefits. Additionally, support and institutionalization of an M&E system to correct faulty implementation procedures and practices in a timely manner would enable the Eritrean government to mainstream results more effectively into both its national strategy and the decision-making processes involving multiple government offices (energy, finance,

agriculture, etc.) for planning and managing global environmental resources.

Concomitantly, the mandates and responsibilities of the GEF, as well as those of national executing agencies and the operational focal point, as a project draws to a close need to be reviewed to ensure a smooth transition at the end of GEF support and the sustainability of project outcomes.

Future updates to the GEF M&E Policy should consider GEF-5 experiences as gathered in this and other CPEs in the application of Minimum Requirement 4, concerning the engagement of the operational focal point in M&E-related activities.

RECOMMENDATION 2: **The GEF should continue to support the SGP in Eritrea and explore the systemic use of the national SGP to deliver community-level support activities for future FSPs and MSPs.**

Even though it has not been present in the country for long, the SGP has a high profile in Eritrea based on its successful work in linking communities to environmental management and sustainable livelihoods, particularly through income-generating activities. The program's effectiveness is partly due to the numerous SGP projects that have successfully replicated the community-based component of the SLM Pilot Project. Building on this success, the SGP could be used as an institutionalized delivery mechanism for the community-based component of larger GEF projects. This systemic use of the program would enable accumulated SGP expertise and experience to be effectively delivered to local-level GEF activities while optimizing GEF resources: cost savings could be realized through the use of existing SGP structures, staff, and work procedures.

TO THE GOVERNMENT OF ERITREA

RECOMMENDATION 3: **The operational focal point should reinstate regular meetings of the national steering committee and undertake a national portfolio formulation exercise for GEF-6.**

The Eritrean National GEF Coordinating/Steering Committee should meet regularly, with the aim of reviewing results from the existing portfolio and to begin planning for the GEF-6 (2014–18) portfolio. Such interactions would also help enhance synergies among all stakeholders including national institutions and development partners, which would be a big step forward in achieving desired results and enhancing efficiency, effectiveness, and sustainability.

The development of future GEF portfolios in Eritrea should also give due consideration to involvement from the public—including women and youth—in the design and execution of national projects, including small grants. Intended and unintended impacts on the public, including women, youth, and other civil society actors, should be overtly discussed during the national portfolio formulation exercise.

2. Evaluation Framework

2.1 Background

The Eritrea CPE aims to provide the GEF Council and the government of Eritrea with an assessment of the results and performance of GEF-supported activities in the country, and to examine how these activities fit with national strategies and priorities as well as within the global environmental mandate of the GEF.

A country is proposed for portfolio evaluation based on criteria that include size, maturity, diversity, and coverage in past work of the GEF Independent Evaluation Office. Eritrea was selected on the basis of its comparatively large and diverse portfolio of completed, ongoing, and in-pipeline projects; its medium/low STAR allocation; its status as a least developing country and fragile state emerging from recent conflict; and its lack of coverage in past Office work.

The GEF Independent Evaluation Office proposed the CPE to the government of Eritrea; this proposal was accepted on the country's behalf by the GEF operational focal point. A team from the Office visited Eritrea on a pre-evaluation mission in February 2013 to discuss modalities for the evaluation and meet with national stakeholders. Based on these discussions, the Office determined the general structure of the evaluation team. Subsequently, based on an open and transparent multistage selection process, ECOSOC was selected as the evaluation's national executing institution. Based on suggestions received from national stakeholders, the Office appointed two experts as members of a peer review panel.

In April 2013, the first consultation meetings with stakeholders were organized in Asmara to determine the scope of the evaluation. Based on inputs received during this consultation, the standard CPE terms of reference were revised to make them specific to Eritrea (see annex C). The evaluative phase of the Eritrea CPE ran from May to October 2013.

Preliminary findings emerging from the evaluation were shared with national stakeholders in a workshop held in Asmara in September 2013. This report incorporates feedback received during the workshop as well as inputs from the peer review panel.

2.2 Objectives

Based on the overall purpose of GEF CPEs, the Eritrea CPE had the following specific objectives:

- Assess the **effectiveness** and **results** of GEF support in the country, with a focus on the sustainability of achievements at the project level and progress toward impact on global environmental benefits[1]

[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:* the output, outcome, or impact (intended or unintended, positive and/or negative) of a GEF activity.

- Independently evaluate the **relevance** and **efficiency** of GEF support in the 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[2]
- 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 government of Eritrea 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

The Eritrea CPE aims to bring to the GEF Council's attention different experiences and lessons on how GEF support is implemented in Eritrea. It seeks to analyze the performance of individual projects as part of the overall GEF portfolio. It was not aimed at evaluating or rating the performance of GEF Agencies, Eritrean entities (national agencies or involved civil society organizations), or individual projects, including the SGP portfolio.

2.3 Scope

The Eritrea CPE covered all types of GEF-supported activities in the country at different stages of the project cycle (completed, ongoing, and in the pipeline) and implemented by all the GEF Agencies in all the focal areas active in the country. The GEF portfolio assessed in this evaluation is Eritrea's 12 national projects and the SGP; global and regional projects were also considered. Project proposals under consideration were not explicitly part of the evaluation, although those that have obtained GEF Council approval are listed and discussed as appropriate. The cutoff date for analysis was June 30, 2012.

2.4 Methodology and Approach

The Eritrea CPE was conducted between March and October 2013 by an evaluation team comprised of staff from the GEF Independent Evaluation Office and ECOSOC. The key evaluation questions are contained in the terms of reference (annex C) and the associated evaluation matrix (annex D). These key questions were based on analysis of data collected during the CPE's evaluative phase. For each, the matrix lists relevant indicators, potential sources of data, and the tools and methods to be used to answer the key questions.

The Eritrea CPE was able to answer the key questions, albeit with some reservations—notably regarding progress to impact, since impact-level information is not routinely collected by the M&E systems of GEF Agencies and requires the use of specific impact evaluation methods. In-country M&E systems for environmental data are also undeveloped, yielding less-than-desired amounts of data on global environmental trends. With half the portfolio comprised of initial enabling activities and only two completed FSPs, the portfolio data and information available for analysis were limited. Additionally, difficulties were encountered regarding baseline information and the wording of indicators and outcomes.

The evaluation team used the GEF's standardized CPE tools and project review protocols, adapting these to the Eritrean context. Several sources of information at various levels both in and outside of Eritrea were used. Stakeholders and officials were interviewed and consulted during the evaluation. These included MOLWE and MOMR representatives; regional and subregional authorities and officials; and staff from UNDP, UNEP, FAO, and the GEF operational focal point office. Focus group discussions were held with SGP beneficiaries, civil society organizations such as the National Union

[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.

of Eritrean Women and the National Union of Eritrean Youth and Students, and local communities (see annex E).

During the research phase of the evaluation, the team conducted a literature review to extract existing reliable evaluative evidence, developed the GEF portfolio database and the country environmental legal framework, assessed global environment benefits, and analyzed project protocols.

Projects for field visits were selected based on several criteria, including their completion/evaluation status; representation within the portfolio by focal area, Agency, modality, and status; accessibility to project activities and sites; and resources and time needed for evaluation. The CMIB project and the SLM Pilot Project were visited, along with two GEF SGP projects (annex F).

Two ROtI assessments were conducted: one in the biodiversity focal area for the CMIB project, and one in climate change on the completed Wind Energy Applications project. The ROtI work was preceded by constructing a model theory of change for each project. The assumption underlying the GEF ROtI theory of change approach is that "[a]n assessment of the logical process linking outcomes to impact is realistic to achieve during short evaluation missions, and provides a potentially robust indirect measure of the ultimate impact" (GEF IEO 2009). The ROtI exercises helped the evaluation team overcome the challenges of measuring project impacts by identifying the sequence of conditions and factors deemed necessary to convert project outcomes into ultimate intended impacts.

Triangulation of results was conducted during a team workshop in July 2013. Triangulation refers to the review, in parallel, of a combination of research methodologies and/or data sources in the study of the same phenomenon. The purpose of triangulation in this evaluation was to increase the credibility and validity of the results. The results discussed in this report come from triangulation of sources drawn from the literature review, the country environmental legal framework, the global environmental benefits assessment, the project review protocols, the ROtIs, the field visits, and stakeholder consultations and interviews. The data and information compiled through these sources were assessed using the main evaluation indicators of effectiveness, results, sustainability, relevance, and efficiency.

2.5 Limitations

Beyond the data restrictions noted above, this section outlines some of the limitations that were taken into account and addressed to the extent possible while conducting the evaluation.

The primary limitation involves attribution, which is an area of complexity and limitation for all CPEs. This evaluation does not attempt to ascribe direct attribution of development and environmental results to GEF activities, as the Office recognizes that there are other development actors and national institutions contributing to overall results. For example, Eritrea had been conducting nationwide land degradation prevention projects (terracing, check dams, forestation, etc.) well before GEF support began. Indeed, land degradation programs and projects in Eritrea are set in a multi-actor and multifactor context. Nonetheless, assessment of the GEF **contribution** toward overall achievements is attempted in this report.

Evaluating the impacts of GEF-funded FSPs was not a straightforward task due to a lack of reliable monitoring information for key indicators on, e.g., flora and fauna diversity, GHG emissions, and climate change outcomes and impacts. The CPE tried to overcome these difficulties by undertaking two field ROtIs. While some projects have a built-in M&E mechanism, it is not always entirely operational. Further, M&E mechanisms were found in Eritrea to be rarely used to inform decision making or review project performance and outcomes, either in midterm reports or after project completion. Therefore, relatively little M&E data were available, and what were available did not constitute a particularly useful source of information.

3. Context of the Evaluation

3.1 Eritrea: Country Context

Eritrea is located in the Horn of Africa, serving as a bridge between the rest of Africa and the Middle East and the Gulf States. It is bordered by Sudan to the west, Ethiopia to the south, Djibouti to the southeast, and the Red Sea to the east. Eritrea has a total land area of 124,300 km^2 with a mainland coastline of around 1,900 km. This coastline runs along the important Red Sea oil and shipping route, connecting the Mediterranean Sea with the Arabian Gulf and the Indian Ocean. In the Eritrean territorial waters, there are 390 islands, the largest being the Dahlak Archipelago.

SOCIOECONOMIC STATUS AND DEVELOPMENT CONTEXT

Table 3.1 presents a general profile of the country's socioeconomic indicators. Eritrea declared its independence and gained international recognition in 1993. The predominant languages are Tigrinya and Arabic, while English is used in the government's international communication and as the language of instruction in all formal education beyond the fifth grade.

The country's total population is estimated to be just over 6 million, putting the population density at 45 persons per km^2 (Population Reference Bureau 2012). The population is young, with

TABLE 3.1 **General Profile of Eritrea**

Indicator	Value	Year
Total population	6.131 million	2012
Gross domestic product (current $)	3.092 billion	2012
Gross national income per capita, Atlas method (current $)	450	2012
Income level	Low income	
Gross enrollment ratio in primary education (%)	47	2011
National poverty headcount ratio (% of population)	69.0	1993
Life expectancy at birth, total (years)	62	2011
Carbon dioxide emissions (metric tons per capita)	0.1	2010
% of rural population with access to water	57	2008

SOURCE: World Bank, http://www.worldbank.org/en/country/eritrea, accessed December 2013.

the larger proportion living in the countryside. The country comprises nine ethnic groups, of which the Tigrigna and Tigre are the largest, constituting 50 and 31 percent of the total population, respectively (UNICEF 1994). The rest of the population is made up of Afar, Bilen, Kunama, Saho, Naro, and Rashaida, found scattered in the eastern and western lowland regions. These ethnic groups differ in language, custom, and dress.

Women constitute about 50 percent of the country's estimated 1 million person potential labor force. In addition to their primary responsibility for family care, food processing and preparation, and community activities, they contribute significantly to crop production and subsistence farming. Recognizing that gender equity and equality are closely linked to the socioeconomic development of the country, the government of Eritrea has formulated a policy to improve the status of women. Over the past years, significant achievements have been recorded with regard to—among other things—women's health, education, and participation in civil, cultural, economic, political, and social life. However, many women-related development programs are hampered by economic constraints facing the country. As a consequence, women still constitute the majority of the poor (National Union of Eritrean Women 2004).

The predominant economic activity for more than two-thirds of the population is rain-fed agriculture. Considering Eritrea's recurrent drought conditions, it is a risky enterprise, and food security remains one of the government's primary concerns. Favorable rains and rehabilitation of rural infrastructure have led to improved agricultural performance and food security in the last three years. However, almost two-thirds of all households are reported to face shortages. In years with adequate rainfall, approximately half the food the country requires has to be imported. According to IFAD's 2010 rural poverty profile for Eritrea, rural households are the most severely affected by poverty because of the low productivity of their crops and livestock.[1]

As a consequence, the level of malnutrition is high, and 40 percent of children under five are underweight for their age. Life expectancy at birth is 59.2 years, and 40 percent of the population does not have access to an improved water source. Nevertheless, Eritrea is on track with regard to Millennium Development Goal 2015 targets for gender parity in primary education; child health; maternal mortality; HIV/AIDS, malaria, and other major diseases—albeit that the goals of eradication of extreme poverty and achievement of universal primary education remain a national challenge (GOE and IFAD 2006).

Large fiscal and trade deficits are managed through price, exchange rate, and interest rate controls, which have led to a shortage of foreign exchange and a drop in private sector activity. The size of the public debt in proportion to gross domestic product (GDP) is a concern. The official annual inflation rate rose to 13.3 percent in 2011, from 11.6 percent in 2010; this is, however, much improved compared to 29.5 percent in 2009. In the longer term, sustained real economic growth of 7 percent or more will be required for Eritrea to reach the Millennium Development Goal of halving the proportion of people living in extreme poverty by 2015.[2]

CLIMATE AND TOPOGRAPHY

Eritrea is located in the arid and semiarid regions of the African Sahel. It occupies a geopolitically significant location because of its coastline along the strategic Red Sea. However, because of its location, the country is continuously faced with

[1] IFAD Rural Poverty Portal, http://www.ruralpovertyportal.org/country/home/tags/eritrea, accessed January 2014.

[2] World Bank Eritrea Country Overview, http://www.worldbank.org/en/country/eritrea/overview, accessed January 2014.

challenges of recurrent droughts and environmental degradation. Eritrea is divided into six administrative regions (*zobas*). Altitudes range from Emba Soira in the central highlands (3,018 m above sea level) to the Danakil Depression (120 m below sea level). Characterized by black lava formations, smoking volcanic cones, and hot springs, Danakil is one of the hottest places on earth, with temperatures typically reaching 50°C.

The climate ranges from hot and arid adjacent to the Red Sea, to temperate in the highlands, and subhumid in isolated micro-catchment areas of the eastern escarpment. About 70 percent of the country is classified as hot to very hot, with a mean annual temperature of more than 27°C; about 25 percent is warm to mild with a mean temperature of about 22° C, and the remaining 5 percent is cool with a mean annual temperature of less than 19° C (FAO 1994).

The total annual rainfall increases from north to south and varies from less than 200 mm in the northwestern lowlands to more than 700 mm in the southwestern lowlands. The amount of rainfall also increases with altitude. While the coastal lowlands are very dry, some areas on the eastern escarpment receive more than 1,000 mm of rain. About 50 percent of the country receives less than 300 mm, 40 percent between 300 and 600 mm, and about 10 percent more than 600 mm of rain per year (FAO 1994; Haile et al. 1998).

Eritrea is divided into six agro-ecological zones: moist highlands, arid highlands, subhumid highlands, moist lowlands, arid lowlands, and semidesert. If managed well, this ecological diversity affords several opportunities for agricultural and livestock development. Given its long coastline, Eritrea is endowed with vast marine resources.

3.2 Environmental Threats and Challenges in Key GEF Support Areas

By virtue of its geographical location and because of its low adaptive capacities, Eritrea is one of the most vulnerable countries in the world to the vagaries of weather and climate. The main hazards are increased climatic variability, recurring drought, flash flooding, and sea level rise. Rainfall is expected to be seriously affected by climate change, varying by a ratio ranging from 0.10 to 0.15. Such long-term changes in climate will have serious adverse impacts on agriculture, water resources, forestry, coastal environments, and human health at the national level, affecting regional and global conditions. In fact, impacts are already being observed in each of these sectors, as briefly outlined below.

- **Agriculture.** The usual April/May rains are fast disappearing; the main rainy season starts later and finishes earlier. Some crops and native cultivars are disappearing from production, and there is a common failure of rain-fed crops, the appearance of new crop pests, a depletion and drying of water wells for irrigation, and unusually heavy flooding. These circumstances are taking a heavy toll on subsistence farmers.
- **Forestry.** Reduced soil moisture adversely affects the growth of shrubs and trees. There are shortages of biomass for energy and house construction, and declines in other biomass products (e.g., frankincense, fodder).
- **Water resources.** Water is a scarce commodity in Eritrea, with no perennial water source: rivers and their tributaries are mostly seasonal and intermittent, except the Setit. Groundwater is the major source of water, and drinking water standards have yet to be formulated. Recurrent drought, warmer temperatures, and high evaporation rates are resulting in smaller stream flows, lower groundwater levels, deterioration in water quality, and a disappearance of base flows, which are the source of urban and rural water supply as well as for livestock and industry. Coastal village water supplies are very sensitive to saltwater intrusion and flooding.

- **Coastal and marine environment.** Sea temperature rise has already had a negative effect on coral reefs and on the fisheries they support. Temperature changes affect food and nutrient supply, growth, survival, reproduction, prey-predator dynamics, and habitat. There are increased instances of toxic algal blooms (e.g., red tide), and mangroves and seagrasses are affected through altered sediment budgets.
- **Public health.** Malaria has now been observed at altitudes close to 2,000 m in Eritrea. Food insecurity has increased along with malnutrition, and diarrhea is becoming more common as a result of contamination caused by flooding. Droughts make it difficult to maintain hygiene. Sanitation and solid waste management are other environmental issues with public health–related consequences that need to be addressed.

BIODIVERSITY

Eritrea is part of the Eastern African Highlands and the Horn of Africa global biodiversity hotspot.[3] In the highlands, the foothills support woodland vegetation, while forests at slightly higher elevations are dominated by conifers. Above 3,000 m, the Afro-alpine ecosystem consists of grassland and moorland, with an abundant herb layer. The heath land scrub above this is dominated by heather.[4] The nation benefits from a highly diverse range of globally unique and significant terrestrial ecosystems. These include East Sudanian savannah, Ethiopian/Eritrean highland forests, Ethiopian/Eritrean highland grasslands and woodlands, Ethiopian/Eritrean xeric grasslands and shrub, Somali Acacia-Commiphora bush and thickets, and Sahelian Acacia savannah.

Eritrea is also endowed with vast marine biodiversity resources, with many considering the region one of the Earth's most important repositories of marine life. The country has nearly 2,000 km of relatively pristine Red Sea coastline (1,000 km mainland and 1,000 km of island). The warm temperatures of the Red Sea give it perhaps the world's highest level of endemism and the highest species diversity of any oceanic water body west of Indonesia, with over 1,100 fish species and 44 genera of hard coral.[5] Around 18 percent of fish species and 20 percent of coral species are reported to be endemic to these waters. Eritrea's thousands of kilometers of undeveloped and underexploited coastal areas are defined by diverse mangrove, coral reef, seagrass, and intertidal habitats.

A total of 126 mammal species are found in Eritrea. Of the 577 bird species, around 320 are resident, about 50 percent have historical breeding records, 195 are migrants, and around 50 are recorded as breeding in Eritrea. Eritrea shares 13 endemic bird species with Ethiopia. A total of 90 reptile and 19 amphibian species have been recorded, of which there are 2 possible endemic reptiles and 1 possible endemic amphibian. However, there is no comprehensive national checklist of species (MOLWE 2012). Estimates suggest that there are threats to a number of species: 19 fish, 10 mammal, 14 birds and 4 higher plant species (DOE/MOLWE 2000).

Genetic erosion of potential globally significant agro-biodiversity is also occurring. Species such as sorghum, barley, and teff—which are the most genetically diverse in the Eritrean and Ethiopian highlands (DOE/MOLWE 2000)—are being replaced by high-yielding varieties, as farmers attempt to compensate for the diminished productivity of an unhealthy ecosystem.

[3] "Horn of Africa," Critical Ecosystem Partnership Fund, http://www.cepf.net/resources/hotspots/africa/Pages/Horn-of-Africa.aspx, accessed February 2016.

[4] "Eastern Afromontane," Critical Ecosystem Partnership Fund, http://www.conservation.org/where/priority_areas/hotspots/africa/Eastern-Afromontane/Pages/default.aspx, accessed February 2016.

[5] Source: Operationalization of Protected Areas Management Systems of Eritrea Project Document.

Many crops domesticated elsewhere have been introduced to Eritrea and now constitute staple food of the population. Eritrea has thus given and received genetic materials, which calls for orderly sharing in accordance with national laws and policies, and international conventions and protocols. As millions of farmers in dry areas around the world depend on sorghum, barley, and teff, the importance of maintaining the genetic bank of these crops for potentially useful characteristics should be clear.

CLIMATE CHANGE

The Eritrean population is an agrarian society, in which a large majority directly depends on land resources for its livelihood. Climate change, and their vulnerability to it, presents challenges to crop and vegetable farming and cultivation, livestock rearing, forestry conservation, water resource management, coastal and marine environmental protection, and the safeguarding of public health.

Anthropogenic factors at both the local and global levels are the main driving forces of climate change in Eritrea. At the national level, GHG emissions from agricultural activities, forest activities, and manure management along with methane emissions from livestock are contributory factors to climate change. Heavy dependence on biomass to meet household energy requirements has had an adverse effect on the forest cover of the country, resulting in desertification, degradation, diminishing biodiversity, and reductions in grain yields and livestock production.

Eritrea's inventory of GHGs takes 1994 as the base year and addresses emissions of carbon dioxide (CO_2), methane, nitrous oxide, carbon monoxide, nitrogen oxides, and nonmethane volatile compounds across six sectors—energy, transport, industry, agriculture, land use change and forestry, and municipal solid waste—with the remainder coming from imported oil products. Because the Second National Communication to the UNFCCC only reports emissions figures from 2000 (MOLWE 2012), data from the World Resources Institute's Climate Analysis Indicators Tool (CAIT) are also presented here (tables 3.2 and 3.3 and figure 3.1). According to the Second National Communication, the dominant mode of transport in Eritrea is by road; in terms of energy consumption, road transport is the highest consumer of fossil fuel products. Of the total 1994 GHG emissions from fossil fuel combustion, the transport sector accounted for 41 percent, the energy sector for 35 percent, and the public and commercial sector for 10 percent; the manufacturing and residential sectors each accounted for 7 percent (MOLWE 2001).

The Second National Communication also provides values for CO_2 emissions by sector, with land use cover and forestry activities contributing the most to emissions. Eritrea heavily depends

TABLE 3.2 **Gigatons of Carbon Dioxide–Equivalent Greenhouse Gas Emissions in Eritrea by Source, 2000**

Source	CO_2	Methane	Nitrous oxide	Total	Percent of total
Fuel combustion	586	168	0	754	6.2
Industrial processes	35	0	0	35	0.3
Agriculture	—	2,793	310	3,103	25.4
Land use cover and forestry	8,205	84	0	8,289	67.8
Waste	0	42	0	42	0.3
Total	8,826	3,087	310	12,223	100.0
Percent of total	72.2	25.3	2.5	100.0	

SOURCE: MOLWE 2012.

TABLE 3.3 **Megatons of Carbon Dioxide–Equivalent Greenhouse Gas Emissions in Eritrea by Sector, 1990–2010**

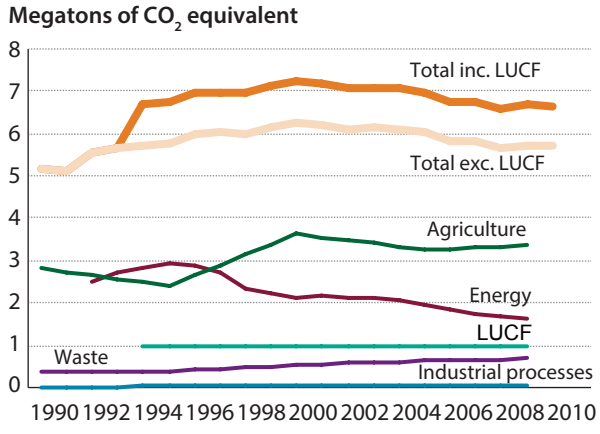
Year	Energy	Industrial processes	Agriculture	Waste	LUCF	Total including LUCF	Total excluding LUCF
1990	—	0.00	2.81	0.35	—	5.15	5.15
1992	2.50	0.00	2.64	0.37	—	5.53	5.53
1994	2.83	0.02	2.48	0.39	0.97	6.68	5.71
1996	2.88	0.02	2.64	0.42	0.97	6.94	5.97
1998	2.34	0.02	3.13	0.47	0.97	6.95	5.97
2000	2.11	0.02	3.62	0.53	0.97	7.24	6.27
2002	2.13	0.02	3.48	0.57	0.95	7.06	6.11
2004	2.07	0.02	3.33	0.60	0.95	7.07	6.12
2006	1.84	0.02	3.28	0.64	0.95	6.76	5.81
2008	1.66	0.02	3.33	0.67	0.95	6.59	5.64
2009	1.63	0.02	3.35	0.69	0.95	6.67	5.72
2010	—	—	—	—	—	6.65	5.70

SOURCE: World Resources Institute CAIT 2.0, http://cait.wri.org/, accessed December 2013.
NOTE: — = not available; LUCF = land use cover and forestry.

on biomass sources of energy, which has created a number of problems, including the following:

- Fuelwood collection and illegal charcoal making aggravate deforestation and associated problems such as soil erosion and land degradation.

FIGURE 3.1 **Greenhouse Gas Emissions in Eritrea by Sector, 1990–2010**



SOURCE: World Resources Institute CAIT 2.0, http://cait.wri.org/, accessed December 2013.
NOTE: LUCF = land use cover and forestry.

- Diversion of animal and crop residues for energy use deprive the soil of organic nutrient sources and hence reduces its productivity.
- GHG emissions from smoke and other toxic materials from biomass burning in poorly ventilated houses pose health hazards to women and children.
- Much time and effort is spent in collecting a dwindling fuelwood supply.

There are approximately 1,500 solar photovoltaic systems in the country, installed mainly for water pumping and to power health centers, schools, and communications, but this remains a minor factor in the larger energy balance. Total energy demand in 2000 was 628.6 kt of oil equivalent, of which nearly 73.2 percent was consumed by the household sector, 11.7 percent by the public and commercial sectors, 12.1 percent by transportation, and 2.8 percent by industry. According to 2004 data from Eritrea's Demographic and Health Survey, only 32 percent of the population overall has access to electricity: 78 percent in urban

areas compared to 3 percent in rural areas. Rural households obtain 95 percent of their energy from biomass sources, contributing to deforestation and desertification (MOLWE 2012).

LAND DEGRADATION

It is estimated that over 80 percent of the country's rural population depends on land resources for its livelihood. Land degradation, however, has become a severe problem. At present, the degraded area covers 2.4 million ha, or 19 percent of the total area of the country. Soil loss in the central highland agricultural ecological zone is between 2.0 and 2.5 tons of soil per ha annually. Productivity levels are declining drastically, including crop and livestock yields, and water is becoming increasingly scarce.

The root causes of land degradation in Eritrea are related to, among others: unsustainable agriculture, overgrazing, and unsustainable use of forest resources; inappropriate resource management practices; inherently poor and infertile soils coupled with relatively limited rainfall and limited productivity; poor knowledge of alternative farming practices and overutilization of essential natural resources; poorly established incentive measures for SLM that prohibit improved and sustainable use of land; a land proclamation and related regulations that are not fully and readily enforceable; incomplete and uncoordinated land use planning; and inadequate information and knowledge management acting as a barrier to successful implementation of SLM programs in Eritrea.

Less than 2.1 million ha of land (17 percent) in Eritrea has been assessed as having potential for rain-fed and irrigated crop production (FAO 1997). Much of the land surface of the country is better suited for pasture than farming (table 3.4). Next to pastureland is land covered by woody vegetation, which accounts for about 60 percent of the total landmass. The advent of Italian colonialism resulted in significant deforestation. More recent

TABLE 3.4 **Land Use in Eritrea**

Land use	Area (thousand ha)
Arable cropland—irrigated	22
Arable cropland—rain fed	417
Pasture	7,000
Forest and woodland	737
Other (urban and barren land)	4,256

SOURCE: MOA 2004.

significant effects of land use include urban sprawl and the construction of roads and highways, which result in accelerated soil erosion, soil degradation, and soil salinity—all contributing to the rapid spread of desertification.

Deforestation is another concern, with forest cover falling to less than 1 percent, compared to 30 percent a century ago. Factors including agricultural expansion, increased firewood consumption, heavy livestock grazing, war and conflict, and construction of traditional houses (*hidmo*) in rural areas are all associated with the loss of forest cover.

The major constraint facing soil conservation and water management has been the traditional land tenure system known as the Dessa system (village ownership). The Dessa system, while ensuring fair allocation of farmland to all members of the community, discourages longer-term investment (either in farm structure or planting long-term crops) because usufruct—the user rights of the land tenure system—is not more than seven years. The loss of productive land in particular is exacerbated by recurrent drought, which has lasted for more than half a century. Nonetheless, significant strides toward sustainability and environmental recovery have been made by the government of Eritrea—with support from the GEF—including reforestation programs and discouraging the use of wood as a fuel source.

PERSISTENT ORGANIC POLLUTANTS

POPs are chemical substances that are toxic, persist in the environment for long periods, and bioaccumulate as they move up the food chain. POPs pose risks to both human health and the environment. Evidence of long-range transportation of these substances to regions where they have never been used or produced—as well as the threats they pose to the Earth as a whole—have spurred the international community to call for urgent global actions to reduce and eliminate releases of these chemicals. FAO, with funding from the governments of Japan and the Netherlands as well as in-kind contributions from FAO and the government of Eritrea, prepared a national inventory of POPs undertaken by the Ministry of Agriculture. The registration status of the various POPs was established in 2007 by the POPs Inventory and Country Environmental and Social Assessment (table 3.5).

The study showed that the major users of pesticides tend to be parastatal farms, vector control authorities, and migratory pest control operations. There is a general lack of awareness about pesticides, and subsistence farmers will use any pesticide (frequently the wrong types) to tackle pest problems and will store empty containers inappropriately. The GEF-supported inventory project gathered data on pesticides, veterinary pesticides, empty pesticide containers, contaminated materials (e.g., seeds and fertilizers), contaminated equipment (e.g., sprayers), and contaminated soils (table 3.6). The comparative risk analysis identified

TABLE 3.6 Summary of Pesticide Inventory in Eritrea

Pesticides	Amount
Obsolete (tons)	335.4
Usable (tons)	56.0
Requires testing (tons)	163.4
Total (tons)	554.8
Contaminated sites	21
Area of contaminated soil (m^2)	1,400
Contaminated materials (tons)	16
Sprayers	5,411
Empty containers	12,251

SOURCE: DOE/MOLWE 2012b.

TABLE 3.5 Status of Persistent Organic Pollutants in Eritrea, 2012

Item	Status	Inventory results	Main source	Trends	Recommendations
POP pesticides	Not produced or used	335.4 tons obsolete 56.0 tons usable 163.4 tons for testing	Contaminated soil and materials; sprayers; containers	Promotion of substitutes and alternatives	POP management guidelines; awareness programs
PCBs	Not produced; no law or regulation	376 electrical transformers 240 capacitors; 45+ tons of oil	Transformers and capacitors prior to 1998 electricity system upgrade	Poor storage; potential for soil contamination	Environmental legislation; PCB management plan for Eritrean Electric Corporation
PCD dioxins and furans	Illegal	121 potential sources 352 gm toxic equivalent/year released	Uncontrolled domestic waste burning (99%)	Knowledge gap on industrial processes; low public awareness	Composting; recycling; sanitary landfill; alternative energy promotion
DDT	Restricted use; imported since 1970	15 tons/year 13,321 kg active 38,801 kg obsolete	Control of mosquitos, bedbugs, and head lice by Ministry of Health	No risk assessment; reduced efficacy on malaria; poor storage	Alternatives; improved monitoring and storage

SOURCE: DOE/MOLWE 2012b.

27 stores in total, including 10 that should be prioritized for safeguarding. There are 21 contaminated locations, with a total area of 1,400 m^2. The majority of the 5,411 sprayers recorded were in poor condition; less than 30 percent are usable. There are over 10,000 containers, which are also in generally poor condition. The condition and suitability of storage buildings are generally poor as well; 96 percent are located near human settlements, and 51 percent are close to water sources.

3.3 Environmental Institutional, Policy, and Legal Framework

The principles underlying the environmental institutional, policy, and legal framework in Eritrea stem from the National Charter of the Popular Front for Democracy and Justice and subsequently promulgated laws, proclamations, directives, and legal notices, as well as the international conventions and protocols to which the country has acceded. Following the attainment of its independence in 1993, Eritrea has been actively engaged in preparing and establishing environmental laws and regulations and promoting policies and strategies.

Eritrea is a signatory to a number of international conventions and protocols, including the CBD, the UNFCCC, and the United Nations Convention to Combat Desertification (UNCCD). Eritrea's participation in the implementation of national and regional environmental programs and projects reflects the extent to which the country views itself vulnerable to the vagaries of climate change and biodiversity depletion, and other environmental hazards. The international conventions and protocols provide a forum for the country to express issues and grievances, as well as access technical and financial resources to support implementation of programs and projects.

Table 3.7 lays out the country's major environmental frameworks and policy documents. Note that several Eritrean environmental laws and bylaws are still in draft form; nonetheless, they still serve as the basic framework from which action plans and strategies for environmental programs emanate.

INSTITUTIONAL FRAMEWORK

The MOLWE, established in 1992, is the government's primary custodian of the country's natural resources and is entrusted with developing the institutional framework for sustainable use of natural resources. Within the ministry, the DOE—which was moved from the Ministry of Agriculture to the MOLWE in 1997—is responsible for coordinating environmental actions in Eritrea. As the concise mission statement of the National Environmental Management Plan notes:

> The Eritrean agency for the Environment is responsible for coordinating the protection and enhancement of Eritrea's environment so that rapid social and economic development can be achieved in consonance with the rational and sustainable use of resources for current as well as future generations. (GOE 1995)

However, the DOE has limited institutional, legal, and technical capacity to tackle the huge task of dealing with the nation's complex environmental problems and their management.

The DOE has evolved over the past 15 years. In its earlier incarnation as the Eritrean Environment Agency, it had considerable statutory authority but virtually no enforcement power to influence other actors; this deficiency was due in part to its newness as well as to its initial placement under the Ministry of Local Government. The DOE's new placement within the MOLWE provides it with a better position, easing the issue of competing priorities. However, because the MOLWE itself needs much institutional strengthening and capacity building, its full potential has yet to be realized.

POLICY FRAMEWORK

The government of Eritrea has developed several policy documents aimed at stimulating economic

TABLE 3.7 **Selected National Policies, Laws, and Regulations on the Environment**

Policy, law, regulation	Authority	Date of enactment/ amendment
National policy		
Macro-Policy Document	Government of Eritrea	1994
National Constitution	Government of Eritrea	1997
National Economic Policy Framework and Program	Government of Eritrea	1998–2000
Interim Poverty Reduction Strategy Paper	Government of Eritrea	2004
Five-Year Indicative Development Plan	Government of Eritrea	2009
Ten-Year Long-Term Indicative Perspective Development Plan	Government of Eritrea	2009
Multifocal/cross-cutting		
National Environmental Management Plan	MOLWE	1995
National Environmental Assessment Procedures and Guidelines	MOLWE	1999
Environmental Law (draft)	MOLWE	2002
National Agricultural Development Strategy and Policy	Ministry of Agriculture	1994/2005
Forest and Wildlife Policy (draft),	Ministry of Agriculture	2005
Agriculture Sector Policy (draft)	Ministry of Agriculture	2006
Land Use Policy (draft)	MOLWE	2007
Water Policy	MOLWE	2010
Biodiversity		
National Biodiversity Strategy and Action Plan (NBSAP)	MOLWE	1996
Proclamation on Conservation of Biodiversity (draft)		1998
Forest and Wildlife Conservation and Development Proclamation No. 155	Ministry of Agriculture	2006
Biosafety Policy Framework	MOLWE	2007
Climate change and energy		
Renewable Energy Sub-Sector Policy	Ministry of Energy and Mines	1997
National Adaptation Program of Action (NAPA)	MOLWE	2007
Land degradation		
Land and Forest Tenure Proclamation No. 58	MOLWE	1994
Legal Notice No. 31	MOLWE	1997
Land Use Planning Regulatory Framework	MOLWE	1999
National Action Programme to Combat Desertification and Mitigate the Effects of Drought (NAP)	Ministry of Agriculture	2002
Integrated Water Resource Management	MOLWE	2003
Water Law, Proclamation No. 162	MOLWE	2010
Five-Year Action Plan for the Great Green Wall Initiative (draft)	MOLWE	2011–2015
Ozone-depleting substances		
ODS Terminal Phase-out Management Plan		2008
Regulation on Ozone Depleting Substances	MOLWE	2010
Persistent organic pollutants		
Regulations for Importation, Use, Storage and Handling of Pesticides	Ministry of Agriculture	2006
Draft Pesticides Proclamation		2008
National Implementation Plan on POPs (NIP)		2012
International waters		
National Coastal Policy (draft)	MOMR	2006

growth and the conservation of the environment and natural resources of national, regional, and global significance. Institutional structures are changing constantly to cope with new challenges and demands.

The **Macro-Policy Document** (GOE 1994) outlines the background for Eritrea's national economic growth strategy and pursues the guiding principles of human-centered, efficient, sustainable, and equitable development. In apparent recognition of the importance of the environment to national development, it has devoted a separate chapter to minimizing the potential environmental consequences of development decisions. Further, in 1997, the **Eritrean Constitution** (Article 8, Sub-Article 3) affirmed the need to pursue sustainable use of natural resources.

The **National Environmental Management Plan** for Eritrea (GOE 1995) provides the basic policy document for action in the environmental sector and lays out a strategy for action for conservation activities. The plan has four parts: environmental and developmental prospects for Eritrea; the major environmental and development issues confronting Eritrea; the major steps and responses involved in an integrated environmental and development planning process; and requirements for implementation of the plan and its associated project activities, institutional prerequisites, and financial/human resources.

The MOLWE, in collaboration with other relevant government agencies, has put considerable effort in developing a system of **National Environmental Impact Assessment Procedures and Guidelines** (DOE/MOLWE 1999) suitable to Eritrean conditions. However, complete enforcement of these procedures and guidelines has not been accomplished, since the Environmental Law has not yet been promulgated, except in the mining and petroleum sectors.

The government of Eritrea developed an **Interim Poverty Reduction Strategy Paper** (GOE 2004) which lays out a macroeconomic framework and steps to create the conditions for resuming rapid economic growth, and policies and programs for poverty reduction. Among other items, this document recognizes the negative impact of forest/habitat destruction. To prevent further deforestation, the paper identifies improved forest and wildlife legal and policy frameworks to enhance conservation measures, undertake a forest resources inventory, and accelerate participatory afforestation programs.

The Ministry of National Development produced the **National Development Planning Framework** in 2009. It clearly stipulates that environmental issues should be mainstreamed in all development policies, plans, programs, and projects; and that adherence to strict environmental standards protecting, restoring, and enhancing the country's environment (land, water, and air) should be ensured.

The **Five-Year Indicative Development Plan** (2009–13), which was prepared immediately after the planning framework, devotes an entire chapter to environmental issues and management. It states that "economic development should be environmentally sustainable, and that economic growth and development must be achieved without damaging the overall ecosystem on which posterity depends."

During the plan's five-year period (2009–13), it is stipulated that concerted national efforts shall be made to protect, restore, and enhance Eritrea's environmental, natural, and cultural assets in all sectors, including (1) prevention of further land degradation through erosion and to maintain the fertility and productive capacity of land resources, such as afforestation, terracing, land retirement, avoidance of overgrazing, adoption of improved agricultural practices, etc.; (2) adapting and implementing the draft marine coastal and integrated coastal area management plans in order to protect marine and coastal resources; (3) protecting, properly managing, and further enhancing the flora and fauna of the Gash-Barka grasslands and the

Semenawi Bahri National Park; and—last but not least—(4) protecting and restoring Eritrea's historical, religious, and artistic heritage.

In moving toward achieving Eritrea's environmental goals, the Five-Year Indicative Development Plan stipulates the following measures to be undertaken during the plan period and beyond: (1) comprehensive national baseline data on the environment prepared; (2) legal provisions reviewed to determine their adequacy and supplemented if needed; (3) land use classification and land use maps developed to promote sound land use management; (4) alternative renewable energy sources, such as wind and solar, harnessed and developed; (5) nonwood construction materials developed to prevent further depletion of forest resources; (6) establishment of appropriate vehicle emissions standards, inspection procedures, and enforcement capacities; and (7) environmental protection, restoration, and enhancement measures mainstreamed in all investments and development programs by requiring appropriate environmental impact assessments, and provision of mitigation measures and effective enforcement mechanisms for compliance with established national standards.

LEGAL FRAMEWORK

The legal framework for environmental management has yet to be formalized—that is, an overall environmental law has not yet been promulgated. This lack has been identified repeatedly over the years as a serious impediment to the effective functioning of the DOE, yet the process of drafting and redrafting the environmental legal framework continues. While the immediate causes for the delay may not be apparent, it is clear that the lack of consensus on what should be included and on the level of detail regarding regulatory procedures has hindered finalization. Inconsistency with existing legislation may also pose problems, particularly with regard to the roles and responsibilities of different ministries and departments. The lack of approved national and sectoral environmental laws and the slow implementation of the Land and Forest Tenure Proclamation of 1994 are regarded as serious constraints to the implementation of environmental policies and reinforcement of regulations.

This subsection outlines some of Eritrea's relevant policies, plans, strategies, and regulations by focal area.

Biodiversity

The overall goal of the **NBSAP** is to "restore, conserve and manage Eritrea's bio-diversity so that it provides environmental services and natural resources that contribute to sustainable and socially fair national economic development" (DOE/MOLWE 2000). It lists a comprehensive set of actions to be taken in the area of biodiversity. The **Wildlife Conservation and Development Proclamation** (2006) stipulates the establishment of a system of protected areas to protect and conserve wildlife and forest cover through a program of reforestation and the identification of endangered and indigenous trees and wildlife. The **Biosafety Policy Framework** (2007) aims to promote biotechnology research and development for the conservation and sustainable use of biotechnology, and the fair and equitable sharing of the benefits arising out of the utilization of biodiversity.

Climate Change

The objectives of the **Renewable Energy Sub-Sector Policy** (1997) include the promotion of sustainable biomass fuels and appropriate alternatives, and to exploit renewable energy potential. Eritrea's **NAPA** (MOLWE 2007) identifies 102 climate change adaptation projects to be prioritized.

Land Degradation

The government of Eritrea began developing a system of legislation addressing land degradation in 1994 with the **Land and Forest Tenure Proclamation**, which established the land tenure system in Eritrea. **Legal Notice No. 31** of 1997

followed, providing the legal basis for methods of land allocation and administration. It is particularly pertinent for areas that are to be set aside as protected areas, national parks, or forestation programs. The **Land Use Planning Regulatory Framework** (1999) prescribes land use planning on the basis of eight classifications of land use. **Integrated Water Resources Management** (2003) and the **Water Law Proclamation** (2010) lay the foundations for sustainable use of water resources through conservation, studies and documentation, and sensitization. Finally, Eritrea's draft Five-Year Action Plan (2011–2015) for the multinational Great Green Wall Initiative is aimed at fighting the advancement of the Sahara Desert through mitigation of land degradation and desertification (DOE/MOLWE 2012a).

Other

In 2006, considering the significant environmental, natural, and cultural assets contained along the coastal areas, the government completed preparation of a draft **National Coastal Policy**. The primary purpose of this policy is to protect the environment and promote sound use of these assets.

The **Pesticide Regulations** (2006) attempt to reduce the negative environmental and human health impacts of pesticides by putting in place such measures as a pesticide registration system and regulations for pesticide packaging, labeling, advertising, transport, use, and disposal.

Regarding **ozone-depleting substances** (ODS), Eritrea is supported by the Multilateral Fund for the implementation of the Montreal Protocol, which is outside the GEF Trust Fund. The National Ozone Unit under the Division of Environmental Resource Assessment and Information coordinates enforcement of ODS regulation and is responsible for implementation of projects to phase out the use of ODS in Eritrea, as well as for raising the awareness of the general public on ozone and climate change issues.

The ODS licensing system for Eritrea was agreed upon in August 2010 after the regulation for the issuance of quotas for importation/exportation of ODS as well as products containing ODS was published in the national gazette. Regulations on Ozone Depleting Substances (2010) provided for tracking and limiting imports and exports, a permit system, promotion of ozone-friendly products, and ODS phaseout.

On behalf of the government of Eritrea, UNEP, as the lead Implementing Agency, submitted Stage I of a hydrochlorofluorocarbons phaseout management plan to the Multilateral Fund in 2012.

In addition, the government has taken practical measures to protect the environment by designating a number of national parks, regulating forest off-take, banning the use of plastic bags, and distributing an improved traditional energy-saving baking and cooking stove (Adhanet *mogogo*).

INTERNATIONAL ENVIRONMENTAL CONVENTIONS AND AGREEMENTS

Eritrean environmental laws and national and sectoral policies and strategies are in harmony with international treaties and conventions. Eritrea has ratified the conventions listed in table 3.8, and has incorporated these international principles into national laws and regulations.

ROLE OF GEF SUPPORT IN THE DEVELOPMENT OF THE LEGAL AND POLICY FRAMEWORK

Beginning in 1993 and 1994 with the national charter and Macro-Policy Document, and then in the 1997 national Constitution, the government clearly articulated its development vision, environmental agenda, and policy of cooperation with development partners and donors. These three documents, in particular, have enabled the government of Eritrea to be in the "driver's seat." As such, it is playing a proactive role in national

TABLE 3.8 **International Conventions and Agreements Ratified or Signed by Eritrea**

Convention/agreement	Date signed	Signed by	Responsible authority
Biodiversity			
Convention on Biological Diversity (CBD)	1996	MOLWE	
Cartagena Protocol on Biosafety to the UNCBD	2005	MOLWE	
Conservation on Migratory Species (CMS) of Wild Animal	2005	MOA	
International Plant Protection Convention	2001		
World Heritage Convention on Nature and Culture Sites under UNESCO	2001	MOEM	
International Treaty on Plant Genetic Resources for Food and Agriculture	2002	MOA	
Memorandum of Understanding on Conservation of Marine Turtle in IOSEA	2006	MOMR	
Memorandum of Understanding Conservation and Management of Sea Cow (Dugongs) in the Indian Ocean, the Red Sea and Western Pacific	2007	MOMR	
Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES)	1995	MOLWE	MOA
Climate change			
United Nations Framework Convention on Climate Change (UNFCCC)	1995	MOLWE	
Kyoto Protocol to the UNFCCC	2005	MOLWE	
Land degradation			
United Nations Convention to Combat Desertification (UNCCD), 14/10/1995	1996	MOA	
ODS			
Vienna Convention for the Protection of the Ozone Layer (1985)	2005	MOLWE	
Montreal Protocol on Substances that Deplete the Ozone Layer (1987)	2005	MOLWE	
POPs			
Basel Convention on the Control of Trans-boundary Movement of Hazardous Waste and their Disposal	2005	MOLWE	
Rotterdam Convention on Prior Informed Consent for Certain Hazardous Chemicals and Pesticides in International Trade	2005	MOLWE	
Stockholm Convention on Persistent Organic Pollutants	2005	MOLWE	
FAO Code of Conduct on Distribution and Use of Pesticides	2008		MOA

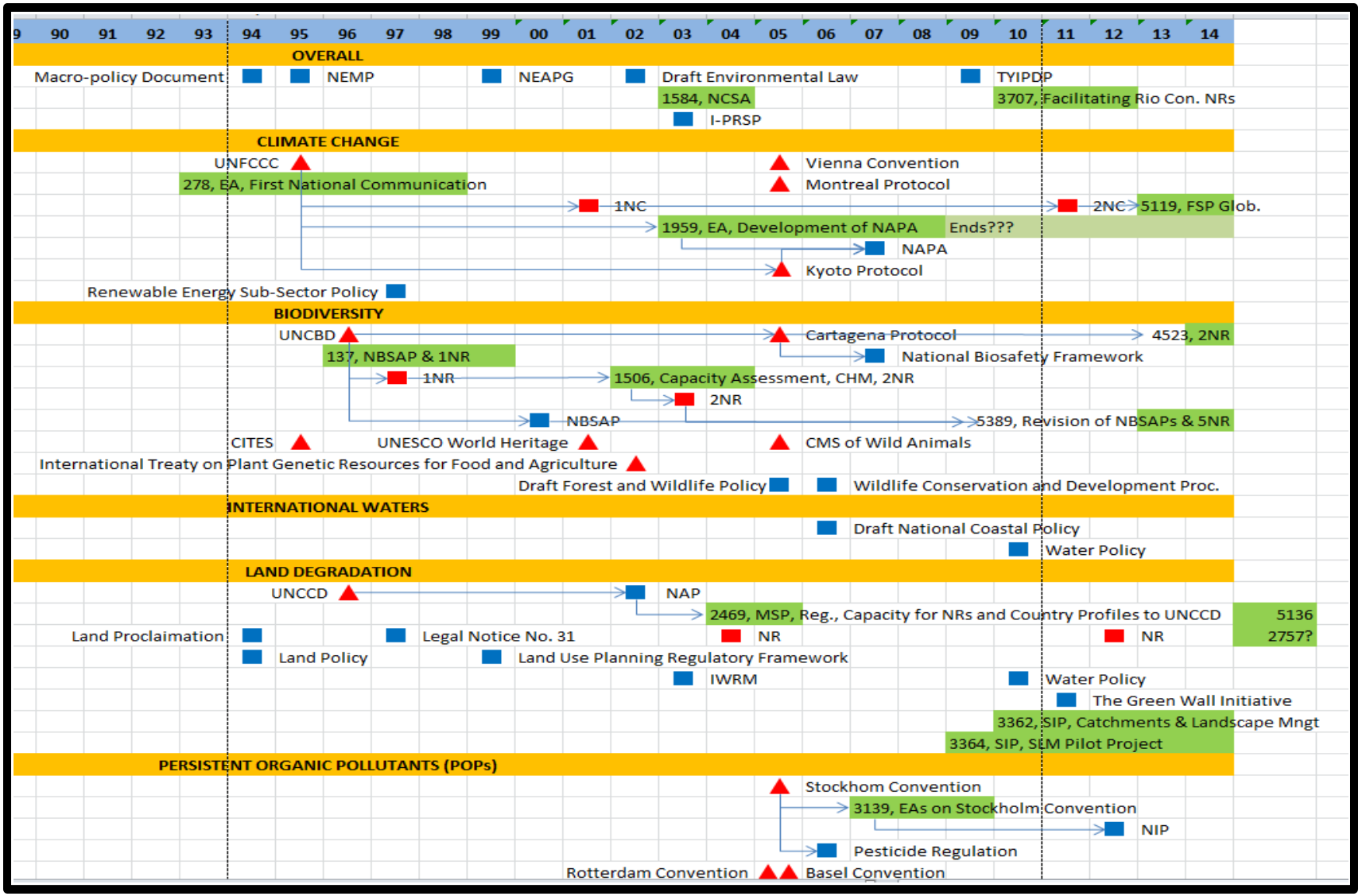
NOTE: MOA = Ministry of Agriculture; MOEM = Ministry of Energy and Mines.

environmental management endeavors. Against this backdrop, this subsection reviews the extent of the GEF's influence on Eritrea's environmental legal and policy framework; also see figure 3.2.

Biodiversity

Eritrea became a party to the CBD on March 21, 1996. The development of a biodiversity strategy was identified as a priority in the 1995 National Environmental Management Plan for Eritrea. Therefore, the GEF provided enabling activity support to help Eritrea in developing its NBSAP, which was endorsed in March 2000 and approved by the government in June 2000. NBSAP development was in compliance with Articles 6 and 8 of the CBD; the NBSAP serves as a means of identifying priority actions for biodiversity conservation and management. In addition, the project provided resources to the government to prepare its first national report to the Conference of the Parties, and so enhanced the capacity of numerous stakeholders in various fields related to biodiversity for

FIGURE 3.2 **Timeline Illustrating Linkage between National Legislation and Policies, International Environmental Agreements, and GEF Projects in Eritrea**



the identification of priority areas for conservation and management. The report was finalized in December 1997 and submitted to the CBD in early 1998.

The GEF provided support to create an enabling environment for the government to implement the NBSAP through the enabling activity Assessment of Capacity Building Needs for Biodiversity, Participation in Clearing House Mechanism and Preparation of Second National Report (GEF ID 1506). The objectives of the project were to assess the country's capacity-building needs for the conservation and sustainable use of biodiversity resources; to establish a clearinghouse mechanism for better management of biodiversity information; and to organize national consultations for the preparation of a second national report to the CBD, which was finalized in March 2003.

Looking forward, a biodiversity FSP—an enabling activity for a GEF grant of $220,000 for Support to Eritrea for the Revision of the NBSAPs and Development of Fifth National Report to the CBD (GEF ID 5389)—has been approved by the GEF CEO. The project's overarching goal is to integrate CBD obligations into national planning processes.

Eritrea deposited its instrument of accession to the Cartagena Protocol on March 10, 2005, which then entered into force on June 8, 2005. The GEF has received CEO approval to provide support to the preparation of the second national biosafety report to the Cartagena Protocol on Biosafety. This report was published in December 2012.[6]

Climate Change Mitigation and Adaptation

On April 24, 1995, Eritrea acceded to the UNFCCC, which then entered into force on July 23, 1995. Under one project, the GEF provided enabling activity support for Eritrea to prepare its first national communication in response to its commitments under the convention. The communication provided GHG emissions estimates, climate change vulnerabilities, and mitigation and adaptation strategies; it was submitted on September 16, 2002.

The GEF also provided support toward development of Eritrea's NAPA. The primary goal of the NAPA process is to broadly communicate to the international community priority activities that address a country's urgent needs for adapting to the adverse impacts of climate change. Eritrea's NAPA was finalized and submitted to the UNFCCC in May 2007.

After Eritrea submitted its second national communication in August 2012, a GEF FSP—Umbrella Programme for National Communication to the UNFCCC (GEF ID 5119)—received CEO endorsement in 2013. This global program will support Eritrea in formulating and preparing its third national communication. The program will seek to strengthen the information base and institutional capacity of the national institutions involved in the development of national communications in order to integrate climate change priorities into development strategies and relevant sector programs. The program will also support the organization of nationally and subregionally funded workshops to train country teams on key components of national reporting and on mainstreaming climate change into national and sectoral planning frameworks.

Land Degradation

The UNCCD was adopted in June 1994, and Eritrea became the 39th country to ratify the convention on August 14, 1996. Through a regional MSP—Supporting Capacity Building for the Elaboration of National Reports and Country Profiles by African Parties to the UNCCD (GEF ID 2469)—the GEF supported capacity building in Eritrea to develop the national report and country profile submitted to the UNCCD. Under

[6] Source: Biosafetyscanner.org.

a global MSP— Support to 20 GEF Eligible Parties for Alignment of National Action Programs and Reporting Process under UNCCD (GEF ID 5136)—the GEF will provide support to Eritrea for alignment of its NAP and reporting process under the UNCCD.

Persistent Organic Pollutants

On March 10, 2005, Eritrea acceded to the Stockholm Convention on POPs. However, it has not yet submitted a national report pursuant to Article 15 of the convention. The GEF provided enabling activity support to Eritrea to facilitate early action on implementation of the Stockholm Convention. The overall objective of the project was to strengthen Eritrea's national capacity and capability to prepare an NIP for POP management. This plan will provide a basic, essential level of information to enable policy and strategic decisions to be made. The NIP was finalized in June 2012.

In 2005, Eritrea ratified the two sibling conventions of the Stockholm Convention. The Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal was adopted by the Conference of the Parties on March 22, 1989. The text of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade was adopted by the Conference of the Parties on September 10, 1998. Eritrea's signature of the three conventions highlighted the issue of hazardous chemicals as a growing priority on the country's environmental agenda.

ENVIRONMENTAL LEGAL AND POLICY FRAMEWORK: GAPS AND CHALLENGES

Notwithstanding the broad reach of Eritrea's environmental policy and legal framework in terms of the issues covered and the lessons to be gleaned when preparing future plans, there are several implementation challenges the country faces. These are briefly highlighted below.

- **Environmental impact assessment.** The major weaknesses in this regard entail the legal provisions for such assessment; the adequacy of human and environmental data information; the centrality of environmental impact assessments in decision making; and the formal provision of strategic environmental assessment of programs, plans, and policies.
- **The draft status of legal and policy instruments.** Some instruments have been in draft form for almost a decade—e.g., the Environmental Law.
- **Poor implementation/enforcement of laws and regulations.** Major reasons for this include a lack of detailed implementation procedures and guidelines. Any legal instrument requires well-prepared and binding documentation that covers both implementation and noncompliance.
- **Inadequate sensitization and awareness-raising campaigns.** Sensitization of the public and awareness raising of key stakeholders are two elements necessary in the effective and efficient implementation of any legal framework.
- **Exchange of experiences and information sharing.** Information sharing and the exchange of experiences play a critical role in the preparation of an effective and efficient legal instrument.
- **M&E.** Clear M&E instruments are needed, with simple and achievable indicators and parameters.
- **Capacity limitations.** In most governmental institutions, there are few experts with the requisite capacity to prepare legal documents and guides, particularly in the area of the environment. This situation is not improved when local

and/or international consultants with limited capacity are recruited to do the job.

3.4 General Description of the GEF

The GEF provides funding to achieve global environmental benefits in biodiversity, climate change, international waters, depletion of the ozone layer, land degradation, and POPs, according to the respective international agreement.

GEF activities are carried out through 10 Agencies: UNDP, UNEP, the World Bank, the African Development Bank, the Asian Development Bank, the European Bank for Reconstruction and Development, FAO, IFAD, the Inter-American Development Bank, and UNIDO. GEF Agencies have direct access to funding through a memorandum of understanding with the GEF.

GEF support modalities include the following:

- **FSPs**, which have funding of more than $1 million
- **MSPs**, which have funding of $1 million or less
- **Enabling activities**, which are intended to help countries meet their obligations under the various conventions for which the GEF serves as a financial mechanism; these provide support for developing environmental policies, strategies, and action plans and for formulating NCSAs
- **Project preparation grants** (PPGs)—formerly known as project development facility (PDF) grants—which provide funding for the preparation and development of projects
- **Small grants**, which have funding of less than $50,000 and are directed to nongovernmental organizations (NGOs) and local organizations; small GEF grants are structured into the SGP administered by UNDP

The GEF officially began with a two-year pilot phase from 1992 to 1994. This was followed by three regular four-year replenishment periods: GEF-1 (1995–98), GEF-2 (1999–2002), GEF-3 (2003–06), and GEF-4 (2006–10). In July 2010, GEF-5 was initiated; it continues through June 2014. Until and including GEF-3, there were no country allocations, and eligible GEF member countries submitted their requests to the various windows through the different GEF Agencies on a demand basis.

4. The GEF Portfolio in Eritrea

This chapter presents an overview of GEF support to Eritrea in terms of financial resources and number of projects, by project modality, focal area, GEF Agency and/or national executing agency, and GEF phase. It also highlights GEF support provided to the SGP and the regional and global projects in which Eritrea is involved. Finally, it examines the roles and responsibilities of different stakeholders in project formulation and implementation and the GEF's national focal point mechanism in Eritrea.

4.1 Defining the GEF Portfolio

The GEF portfolio for the Eritrea CPE takes into account all national projects submitted to the GEF as of June 30, 2012. This set includes proposals at a pre-approval stage, projects that have been approved but have not yet begun, ongoing projects, and completed projects. It also includes activities supported through the UNDP-administered SGP.

To identify these activities, data on GEF projects were downloaded from the GEF PMIS. Data on SGP grants in Eritrea were requested from the Eritrea SGP national coordinator. The project list generated through the PMIS was then shared with the GEF operational focal point and the various GEF Agencies for vetting. The portfolio was also vetted through triangulation with other information sources, including documents available through the PMIS. Through this iterative process, the data sets were updated, missing projects were identified, and a final list of 12 national projects and 22 SGP grants relevant to the Eritrea CPE was prepared.

It is estimated that the GEF has allocated $22.6 million for Eritrea's national projects. These activities involved aggregate cofinancing commitments of about $41.6 million from other partner organizations. Table 4.1 presents an overview of the GEF national project portfolio in Eritrea, comprising eight projects that have been completed or closed, three that are ongoing, and one that is in the process of approval. Projects have begun in each of the five GEF replenishment periods so far: three in GEF-1, one in GEF-2, three in GEF-3, four in GEF-4, and one in GEF-5 to date. The GEF also supports seven regional and three global projects with components in Eritrea; these are discussed in section 4.4.

4.2 GEF Support of National Projects in Eritrea

SUPPORT BY MODALITY

Table 4.2 and figure 4.1 present GEF financing for national projects by modality. There are six enabling activities in the national portfolio with a total of about $1.5 million in GEF contributions, and six FSPs with a total of about $21.1 million in GEF contributions—about 93 percent of total GEF support to the national portfolio.

TABLE 4.1 **GEF-Supported National Projects in Eritrea**

GEF ID	Name	Focal area	Modality	Agency	GEF phase	GEF grant ($)	Cofinancing ($)
			Completed				
137	National Biodiversity Strategy, Action Plan and First National Report	BD	EA	WB	GEF-1	275,000	0
278	Enabling Eritrea to Prepare Its First National Communication in Response to Its Commitments to UNFCCC	CC	EA	UNDP	GEF-1	303,850	0
411	Conservation Management of Eritrea's Coastal, Marine and Island Biodiversity	BD	FSP	UNDP	GEF-1	4,986,000	840,000
1136	Wind Energy Applications	CC	FSP	UNDP	GEF-3	1,950,561	2,935,536
1506	Assessment of Capacity Building Needs for Biodiversity, Participation in Clearing House Mechanism and Preparation of Second National Report (add on)	BD	EA	WB	GEF-2	170,000	15,000
1584	National Capacity Self-Assessment (NCSA) for Global Environmental Management	MF	EA	UNEP	GEF-3	198,000	20,000
1959	Development of a National Adaptation Program of Action (NAPA)	CC	EA	UNDP	GEF-3	200,000	17,600
3139	Enabling Activities to Facilitate Early Action on the Implementation of the Stockholm Convention on POPs	POPs	EA	UNIDO	GEF-4	346,500	35,000
			Ongoing				
3362	SIP: Catchments and Landscape Management	LD	FSP	IFAD	GEF-4	4,350,000	21,678,000
3364	SIP: Sustainable Land Management Pilot Project	LD	FSP	UNDP	GEF-4	1,820,000	2,250,000
3987	Eritrea: Prevention and Disposal of POPs and Obsolete Pesticides	POP	FSP	FAO	GEF-4	2,150,000	3,209,153
			Pipeline				
4559	Operationalization of Protected Areas Management Systems of Eritrea	BD	FSP	UNDP	GEF-5	5,878,000	10,555,400
Total						22,627,911	41,555,689

NOTE: SIP = strategic investment program; BD = biodiversity, CC = climate change, LD = land degradation, MF = multifocal area, EA = enabling activity.

TABLE 4.2 **GEF Support to National Projects in Eritrea by Modality**

Project modality	No. of projects	GEF grant ($)	Cofinancing ($)	% of GEF grant	% of cofinancing	Cofinancing ratio
Enabling activity	6	1,493,350	87,600	6.6	0.2	0.03
FSP	6	21,134,561	41,468,089	93.4	99.8	1.96
Total	12	22,777,911	41,555,689	100.0	100.0	

FIGURE 4.1 **GEF Support to National Projects in Eritrea by Modality**

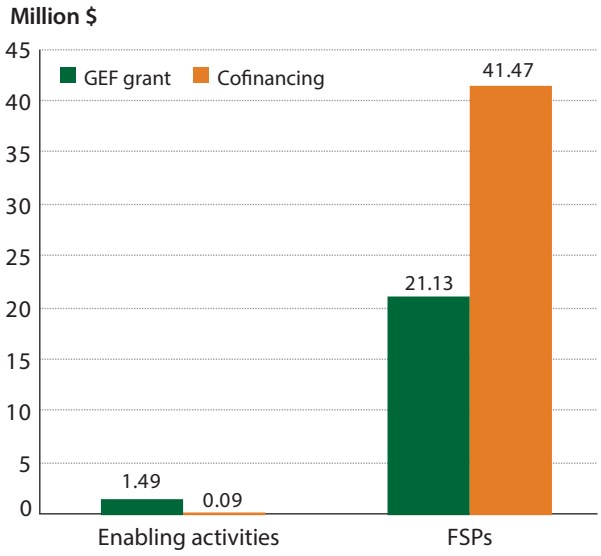
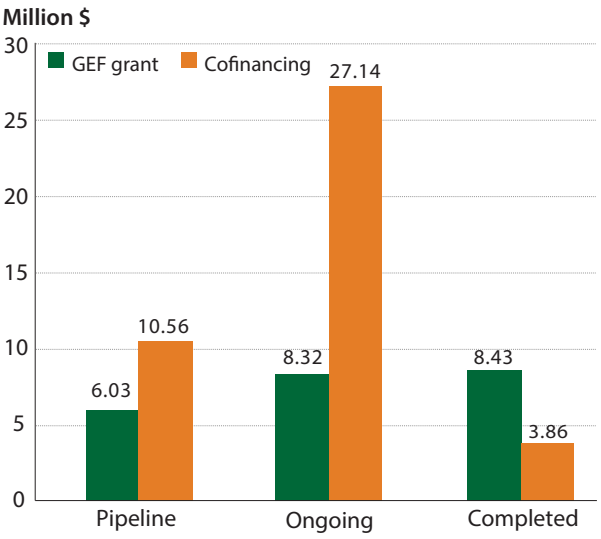


FIGURE 4.2 **GEF Support to National Projects in Eritrea by Project Status**



SUPPORT BY PROJECT CYCLE STATUS AND GEF PHASE

Table 4.3 and figure 4.2 summarize support allocated to projects according to their current status: completed, ongoing, or in pipeline. All projects were initiated in GEF phases from GEF-1 to GEF-4, with no projects in the pilot phase. As of this writing, one project is in the pipeline, eight have been completed, and three from GEF-4 are ongoing.

Two projects entered the pipeline in GEF-5: Support to Eritrea for the Revision of the NBSAPs and Development of Fifth National Report to the CBD, a GEF enabling activity with a grant of $220,000; and Operationalization of Protected Areas Management Systems of Eritrea (GEF ID 4559). Together, these comprise Eritrea's GEF-5 allocation of less than $7 million.

TABLE 4.3 **GEF Support to National Projects in Eritrea by Project Status**

	Completed		Ongoing		Pipeline		Total	
GEF phase	No.	Grant ($)	No.	Grant ($)	No.	Grant ($)	No.	Grant ($)
Pilot	0	0	0	0	0	0	0	0
GEF-1	3	5,564,850	0	0	0	0	3	5,564,850
GEF-2	1	170,000	0	0	0	0	1	170,000
GEF-3	3	2,348,561	0	0	0	0	3	2,348,561
GEF-4	1	346,500	3	8,320,000	0	0	4	8,666,500
GEF-5	0	0	0	0	1	6,028,000[a]	1	6,028,000
Total	8	8,429,911	3	8,320,000	1	6,028,000	12	22,777,911

a. This amount includes a $150,000 project preparation grant. A second project entered the pipeline during GEF-5, but this was approved in 2013, thus exceeding the evaluation's cutoff for inclusion in the portfolio.

SUPPORT BY AGENCY

GEF projects in Eritrea have been implemented by 6 of the 10 GEF Agencies operating globally. A detailed distribution of project coverage by Agency is presented in table 4.4. In terms of number of projects, UNDP is the leading Agency with six projects (50 percent of the national portfolio), followed by the World Bank with two projects (17 percent). The other four Agencies—FAO, IFAD, UNEP, and UNIDO—have one project each. In terms of GEF grants, the picture is slightly different. UNDP manages approximately 66 percent of funds; FAO and IFAD manage around 10 percent and 19 percent of GEF grants, respectively. This highlights the differences in the scale of projects that Agencies are implementing.

Table 4.5 shows GEF support by Agency in the various focal areas. UNDP has largely been involved in biodiversity and climate change, whereas the World Bank has focused solely on biodiversity. FAO and UNIDO have each implemented one POPs project; and UNEP and IFAD have managed one project each: in the multifocal and land degradation areas, respectively.

SUPPORT BY FOCAL AREA

Table 4.6 and figure 4.3 present an overview of support by focal area in Eritrea. Together, projects in the biodiversity (four projects) and climate change (three projects) focal areas account for about 58 percent of the total number of GEF national projects. These are followed by the land degradation and POPs (two projects, or 17 percent, each), and multifocal areas (one project, or 8 percent).

In terms of value of GEF grants, biodiversity accounts for 50 percent of the total portfolio, making it the largest focal area in the Eritrean portfolio. This is followed by land degradation with 27 percent of GEF grants, climate change with 11 percent, and POPs with 11 percent; the single project in the multifocal area accounts for about 1 percent of GEF funding to the portfolio. Regarding cofinancing, land degradation has been able to

TABLE 4.5 Number of Projects by Focal Area Implemented by Each GEF Agency

Agency	BD	CC	LD	POPs	MF
UNDP	2	3	1	0	0
UNEP	0	0	0	0	1
World Bank	2	0	0	0	0
FAO	0	0	0	1	0
IFAD	0	0	1	0	0
UNIDO	0	0	0	1	0
Total	4	3	2	2	1

NOTE: BD = biodiversity; CC = climate change: LD = land degradation; MF = multifocal.

TABLE 4.4 GEF Support to National Projects in Eritrea by Agency and Project Status

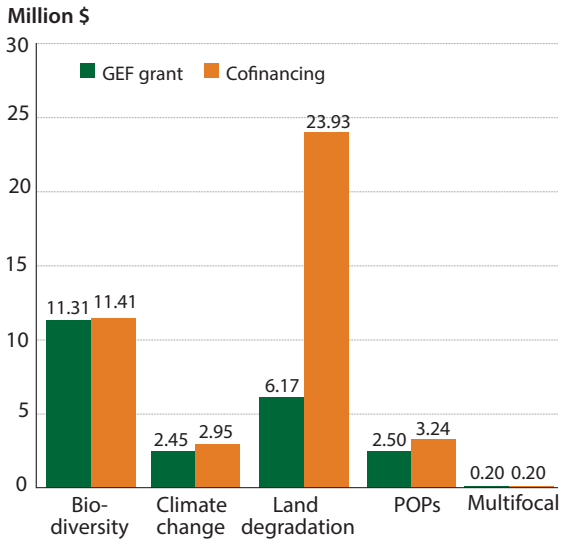
	Completed			Ongoing			Pipeline			Total		
Agency	No.	GEF grant ($)	Cofinancing ($)	No.	GEF grant ($)	Cofinancing ($)	No.	GEF grant ($)	Cofinancing ($)	No.	GEF grant ($)	Cofinancing ($)
UNDP	4	7,440,411	3,793,136	1	1,820,000	2,250,000	1	5,878,000	10,555,400	6	15,138,411	16,598,536
UNEP	1	198,000	20,000	0	0	0	0	0	0	1	198,000	20,000
WB	2	445,000	15,000	0	0	0	0	0	0	2	,000	15,000
FAO	0	0	0	1	2,150,000	3,209,153	0	0	0	1	2,150,000	3,209,153
IFAD	0	0	0	1	4,350,000	21,678,000	0	0	0	1	4,350,000	21,678,000
UNIDO	1	346,500	35,000	0	0	0	0	0	0	1	346,500	35,000
Total	8	8,429,911	3,863,136	3	8,320,000	27,137,153	1	6,028,000[a]	10,555,400	12	22,777,911	41,555,689

NOTE: WB = World Bank.
a. This amount includes a $150,000 project preparation grant.

TABLE 4.6 **GEF Support to National Projects in Eritrea by Focal Area**

Focal area	No. of projects	GEF grant ($)	Cofinancing ($)	% GEF funding	% Cofinancing
Biodiversity	4	11,309,000	11,410,400	50.0	27.5
Climate change	3	2,454,411	2,953,136	10.8	7.1
Land degradation	2	6,170,000	23,928,000	27.3	57.6
POPs	2	2,496,500	3,244,153	11.0	7.8
Multifocal area	1	198,000	20,000	0.9	0.0
Total	12	22,777,911	41,555,689	100.0	100.0

FIGURE 4.3 **GEF Support to National Projects in Eritrea by Focal Area**



generate almost $4 for each $1 of GEF grant as a result of bundling with an IFAD loan.

Completed projects to date consist of three in the biodiversity focal area, three in climate change, one in POPs, and one multifocal. Projects currently under implementation consist of two in land degradation and one in POPs; a biodiversity project is in the pipeline.

Table 4.7 illustrates levels of GEF support to each focal area over the five GEF replenishment periods. Initially, during GEF-1 and GEF-2, biodiversity and climate change were the only focal areas to receive GEF support. However, as the GEF and national agendas evolved, GEF-3 saw the start of support toward multifocal projects, and GEF-4 brought in two projects under both land degradation and POPs. Most GEF support has gone to the

TABLE 4.7 **GEF Support to National Projects in Eritrea by GEF Phase and Focal Area**

	Biodiversity		Climate change		Land degradation		POPs		Multifocal		Total	
GEF phase	No.	GEF grant ($)	No.	GEF grant ($)	No.	GEF grant ($)	No.	GEF grant ($)	No.	GEF grant ($)	No.	GEF grant ($)
Pilot	0	0	0	0	0	0	0	0	0	0	0	0
GEF-1	2	5,261,000	1	303,850	0	0	0	0	0	0	3	5,564,850
GEF-2	1	170,000	0	0	0	0	0	0	0	0	1	170,000
GEF-3	0	0	2	2,150,561	0	0	0	0	1	198,000	3	2,348,561
GEF-4	0	0	0	0	2	6,170,000	2	2,496,500	0	0	4	8,666,500
GEF-5	1	6,028,000[a]	0	0	0	0	0	0	0	0	1	6,028,000
Total	4	11,309,000	3	2,454,411	2	6,170,000	2	2,496,500	1	198,000	12	22,777,911

a. This amount includes a $150,000 project preparation grant.

biodiversity focal area ($11.3 million), followed by land degradation ($6.2 million). Funding has tended to increase over time, although there was very little funding during GEF-2 ($0.17 million). During GEF-5, the STAR, which replaced the Resource Allocation Framework (RAF), determines the amount of resources a given country can access in a replenishment period. Under the new system, Eritrea, with access to less than $7 million, is able to allocate all of its available funds to one focal area. It was decided that the funds would be directed toward a single biodiversity project, which explains the lack of diversity in the GEF-5 portfolio.

4.3 Small Grants Programme

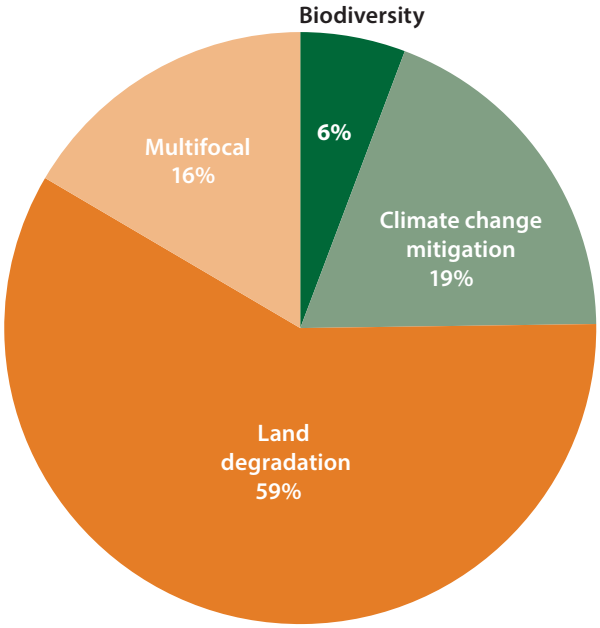
Since it began operations in Eritrea in 2009, the SGP has provided support to 22 community-based activities.[1] It has received financial support totaling $1,034,998, covering the focal areas of land degradation, climate change mitigation, biodiversity, and multifocal. It leveraged an intended $433,883 in cash cofinancing and $1,522,323 in in-kind resources for the 22 projects; these were executed by civil society and community-based organizations. The SGP in Eritrea has predominantly supported land degradation projects (figure 4.4), with $607,316, or 59 percent of the portfolio. By focal area, 14 of the 22 projects are focused on land degradation, 2 on climate change mitigation, and 2 on biodiversity; 4 are multifocal.

4.4 Regional and Global Projects

Eritrea has so far had significant involvement in GEF-supported regional and global activities, with 12 projects having components relevant to Eritrea—10 regional and 2 global. In the case of regional projects, it is often impossible to determine how much funding benefited any individual country. While a country may participate substantially in some of these projects (e.g., where it has a pilot project or operational project office), its involvement may be marginal in others. The figures for regional projects therefore simply show that the country has had some level of participation in a range of more or less major international projects.

Table 4.8 summarizes Eritrea's involvement in regional and global projects. By focal area, Eritrea has participated in three regional/global projects in climate change, three in land degradation, two in biodiversity, two in POPs, one in international waters, and one multifocal. As noted above, the total GEF grant and associated cofinancing provided to Eritrea cannot be accurately calculated, as the exact dollar figures benefiting Eritrea are not available for all regional/global projects. Moreover, some of these projects also take into account grants considered under the national portfolio—e.g., the

FIGURE 4.4 **SGP Portfolio in Eritrea by Focal Area**



[1] The source for the data in this subsection is the SGP website, https://sgp.undp.org/index.php?option=com_sgpprojects&view=allprojects&Itemid=211&paging=1, accessed January 2014.

TABLE 4.8 **Regional and Global GEF Projects Relevant to Eritrea**

GEF ID	Title	Focal area	Modality	Agency	Regional/ global	GEF phase	GEF grant ($)	Cofinancing ($)
			Complete					
1094	Nile Transboundary Environmental Action Project, Tranche 1	IW	FSP	WB–UNDP	Regional	GEF-2	16,800,000	93,700,000
1513	Building Sustainable Commercial Dissemination Networks for Household PV Systems in Eastern Africa	CC	MSP	UNEP	Regional	GEF-3	693,600	539,630
2469	Supporting Capacity Building for the Elaboration of National Reports and Country Profiles by African Parties to the UNCCD	LD	MSP	WB	Regional	GEF-3	900,000	900,000
			Ongoing					
1028	Mainstreaming Conservation of Migratory Soaring Birds into Key Productive Sectors along the Rift Valley/ Red Sea Flyway (Tranches 1 and 2)	BD	FSP	UNDP	Regional	GEF-3	6,243,243	4,887,232
1331	Demonstrating Cost-effectiveness and Sustainability of Environmentally-sound and Locally Appropriate Alternatives to DDT for Malaria Control in Africa	POP	FSP	UNEP	Regional	GEF-3	3,460,296	2,966,950
3707	Piloting Integrated Processes and Approaches to Facilitate National Reporting to Rio Conventions	MF	MSP	UNEP	Global	GEF-4	840,000	800,880
			Pipeline					
2757	Strategic Investment Program for SLM in Sub-Saharan Africa	LD	FSP	WB, UNDP, UNEP, AfDB, IFAD, FAO	Regional	GEF-4	122,998,091	978,426,000
4523	Support to Preparation of the Second National Biosafety Reports to the Cartagena Protocol on Biosafety-Africa	BD	MSP	UNEP	Regional	GEF-5	993,950	840,000
5119	Umbrella Programme for National Communication to the UNFCCC	CC	FSP	UNEP	Global	GEF-5	6,180,000	1,098,000
5136	Support to 20 GEF Eligible Parties for Alignment of National Action Programs and Reporting Process under UNCCD, Add-on Umbrella 2	LD	MSP	UNEP	Global	GEF-5	1,000,000	1,000,000
			Dropped, canceled, or rejected					
2119	African Rift Geothermal Development Facility (ARGeo)	CC	FSP	UNEP–WB	Regional	GEF-3	4,750,000	74,261,652
3988	ASP2 Program: Africa Stockpiles Programme—Phase 2	POP	FSP	WB–FAO	Regional	GEF-4	—	—

NOTE: BD = biodiversity; CC = climate change: LD = land degradation; MF = multifocal; WB = World Bank

regional Strategic Investment Program for SLM in Sub-Saharan Africa (GEF ID 2757) covers the two SLM projects (implemented by UNDP and IFAD) in the Eritrean national portfolio.

4.5 Stakeholder Roles and Responsibilities in Project Implementation

In Eritrea, GEF steering and technical committees have been established at the national and regional levels. The national-level GEF steering committee mainly deals with policy guidance and endorsement of programs and projects; its members include ministers and director generals from such key stakeholder organizations as the MOLWE, the MOMR, the Ministry of Agriculture, the Ministry of Education, and the Ministry of Energy and Mines. The committee should meet once a year, but meetings can also be held whenever urgent issues arise. The technical committee is scheduled to meet every three months, although the evaluation team was told that in practice this has not always been the case.

The composition of the national-level technical committees differs by focal area (table 4.9). At the regional level, technical committees are also composed of directors of line ministries in the region.

National-level technical committees coordinate project preparation, and resolve misunderstandings and potential conflicts among stakeholder members that may arise during planning, resource allocation, and project preparation. They forward projects to the national-level steering committee for endorsement. Technical committees also conduct visits to project sites and make on-the-spot decisions whenever the need arises.

At the *zoba* level, technical committees assume full responsibility for the coordination of GEF-supported projects during implementation and follow-up. They meet every month and conduct regular field visits to project sites for adaptive management.

4.6 GEF Focal Point Mechanism in Eritrea

GEF guidelines prescribe that there should be two focal points: one operational and one political. In Eritrea, both positions have been held since 2003 by the DOE director general. As a political focal point, he is responsible for, among other things, GEF governance issues and policies and communications with national stakeholders and the GEF Agencies. As an operational focal point, he carries out project-related consultations with (1) convention focal points, (2) steering and technical committees for GEF focal areas and the SGP, (3) relevant national executing agencies, and (4) GEF Agencies. This consultation process leads to recommendations regarding where GEF resources should be allocated.

TABLE 4.9 **Eritrea Technical Committee Members by Focal Area**

Focal area	National level
Biodiversity	Ministry of Agriculture, MOLWE, MOMR, Ministry of Energy and Mines, Ministry of Trade and Industry, National Board for Higher Education, Ministry of Transport and Communication, National Union of Eritrean Women
Climate change	MOLWE, Ministry of Agriculture, Ministry of Energy and Mines, Ministry of Trade and Industry, Ministry of Transport and Communication, National Board for Higher Education
Land degradation	Ministry of Agriculture, MOLWE, MOMR, Ministry of Construction, Ministry of Transport and Communication, National Union of Eritrean Women
POPs	Ministry of Agriculture, MOLWE, Ministry of Trade and Industry, Ministry of Transport and Communication, Ministry of Energy and Mines, Ministry of Health, private sector (service garages, industries, etc.)

Within the DOE, there are four convention focal points—one each for biodiversity, climate change, chemicals, and land degradation—who are directly responsible to the director general for environment. The duties of these focal points include (1) following up on latest developments related to conventions and attending meetings and conferences; (2) conducting meetings of concerned stakeholders and disseminating new knowledge and practices; (3) collecting, storing, and disseminating data and information on the focal area; (4) preparing concept papers for national action plans and having these endorsed by the technical and steering committees; and (5) actively participating in the preparation and implementation of projects in the respective focal area.

PREPARATION AND APPROVAL PROCEDURE OF GEF-SUPPORTED PROJECTS

In Eritrea, the government in general—and the DOE in particular—are in the "driver's seat" when it comes to GEF-supported project preparation, implementation, and monitoring. The procedures followed for the flow of GEF resources are directly controlled by the government. Agencies simply release the funds upon the DOE's request; when project preparation is finalized, the Agency submits any further release of allocated funds for the project to the GEF for endorsement. Thus, the implementing stakeholders—including the regions (which are the implementers)—are more visible than the GEF Agencies in the country. This is true for all projects including those under the SGP.

Because all GEF projects have their inception and are planned and implemented by the government, concerted efforts by country stakeholders (e.g., in the land degradation projects, by the Ministry of Agriculture, the MOLWE, the DOE, the focal point and the convention focal point, regional administrators, and beneficiary communities) have resulted in cooperation and coordination of resources and efforts to attain a desired level of synergy. At its best, synergy between implementing partners (the GEF Agencies) should be sought during project preparation and monitoring for projects with coordination in the same focal area and in the same and/or neighboring geographic areas, as this can indeed reinforce and/or sustain project outcomes. These synergies could be strengthened, especially between Agencies—e.g., all those involved in the SLM programs, particularly those Agencies that do not have an office presence in Eritrea. To date, regional cooperation or coordination with national institutions in neighboring or other countries has not taken place, due to the prevailing geopolitical situation in the Horn of Africa.

CHALLENGES FACED BY THE FOCAL POINT

According to interviews with key informants and the focal point and convention focal points, Eritrea faces several challenges in implementing multilateral environmental agreements. The most prominent of these challenges include (1) a shortage of motivated and skilled human resources at both the national and regional levels, (2) lack of fuel and transport facilities to monitor programs and projects, (3) inadequate baseline data for monitoring progress, and (4) an inadequate subsistence allowance that does not permit government staff to make field visits.

Eritrea's STAR allocation was also noted as a challenge. While there is no objection to the criteria used to determine funds allocation based on the existing procedure, the area of contention is that the GEF applies the same criteria for all countries. In Eritrea, soil and water conservation activities (construction of terraces, check dams, soil bunds, forestation, establishing enclosures and protected areas, etc.), are time-honored government-supported practices of traditional/subsistence farming communities. Nonetheless, the GEF's STAR precludes consideration of such national efforts as having large global environmental benefits and thereby allowing for a larger STAR allocation.

5. Results, Effectiveness, and Sustainability of GEF Support to Eritrea

This chapter examines key questions related to GEF support to Eritrea in terms of effectiveness, results, and sustainability. Evidence on progress toward impact of GEF support comes from the ROtI studies conducted on two projects in the Eritrea portfolio. Information on results achieved on other ongoing and enabling activities comes from triangulation of data from various sources, including desk reviews, interviews, and field visits. These assessments were completed where possible by meta-evaluation analysis of existing evaluative evidence and reports. For the ongoing activities—the two SLM projects, and the Prevention and Disposal of POPs and Pesticides Project—the evaluation assessed the likelihood for achievement of results based on the review of project documents and on informed comments offered by key stakeholders regarding ongoing processes and activities.

The analysis does not attempt to directly attribute results to GEF activities. Rather, it assesses the contribution of GEF projects, along with other factors, to the achievement of expected results.

5.1 Global Environmental Benefits

GEF investments are predicated on the delivery of global environmental benefits in the focal areas of biodiversity, climate change, international waters, land degradation, ozone depletion, and POPs. In Eritrea, GEF-supported projects have been able to contribute to global environmental benefits in maintenance of endemic species of coral, protection of unique ecosystems, and prevention of land degradation. The benefits are specific to each focal area and are elaborated below.

BIODIVERSITY

At the time of review, the GEF had supported three completed projects in biodiversity in Eritrea: two enabling activities and one FSP. There is an additional biodiversity project in the pipeline. The two completed enabling activities are (1) the NBSAP and First National Report and (2) the Assessment of Capacity Building Needs for Biodiversity, Participation in Clearing House Mechanism and Preparation of Second National Report. The completed FSP is the CMIB project. The Operationalization of Protected Areas Management Systems project is currently in the pipeline. During the course of the CPE, another biodiversity project entered the pipeline, Support to Eritrea for the Revision of the NBSAPs and Development of Fifth National Report to the CBD. Because it entered the pipeline after the cutoff date for the evaluation portfolio, it is not considered in this analysis.

The various projects within the biodiversity focal area are enabling Eritrea to extend support to the country's approach to mainstream biodiversity into productive landscapes; this is particularly important in Eritrea where food security remains a national priority. Despite the constraints in national reporting, there are examples of conservation and sustainable use of biodiversity resources in several parts of the country. Biodiversity

considerations are also integrated into agricultural and forest initiatives, and these integrations extend into the GEF land degradation portfolio.

The long-term impact for biodiversity in the country will largely depend on the extent to which institutional and human capacity for sustaining these gains is maintained and improved. Certainly, local communities are now more aware of the potential social and economic benefits that could be generated from the various conservation activities. However, concrete project outcomes related to poverty reduction and improved livelihoods are issues that will only be realized over a stretch of years to come.

National Biodiversity Strategy, Action Plan and First National Report

Consistent with global and national priorities, the NBSAP and First National Report project was based on the recommendation of the National Environmental Management Plan for Eritrea and was supported by the GEF and prepared in 1996. The project-supported activities related to a (1) stocktaking inventory of existing information with regard to Eritrea's biodiversity and its identification; (2) analysis of options for conserving Eritrea's biodiversity based on participatory community-based local workshops and seminars designed to engage communities in conservation planning; and (3) consolidation of findings from these workshops and from a series of regional and national workshops into a strategic plan leading to the conservation of biodiversity, and incorporation of this plan in national development plans.

The outcomes generated from the NBSAP included the following:

- Eritrea's capacity-building needs for the conservation and sustainable use of biodiversity resources were assessed.
- A better clearinghouse mechanism for the management of biodiversity information was established.
- The Second National Report to the CBD was prepared based on national consultation and discussions.

The NBSAP also gradually led to the formulation of the NCSA.

The NBSAP provided the government with resources to prepare the First National Report to the CBD in December 1997. The series of workshops and seminars held enabled Eritrea to strengthen its capacity and be better prepared for the Conference of the Parties. That conference recommended that the first national report focus on general measures "for the conservation and sustainable use of BD [biodiversity] as well as for studies on biological diversity such as the stocktaking inventory."

Accordingly, the NBSAP identified five priority areas: (1) assess the capacity needs, identify priorities, and build consensus on the overall implementation of general measures for in situ and ex situ programs and projects; (2) make an initial capacity needs assessment in the biodiversity monitoring program, including taxonomy; (3) assess the capacity needs, identify priorities, and build consensus on the overall conservation and sustainable use of biodiversity resources for agriculture; (4) assess methodologies to evaluate and mitigate specific threats to components of biodiversity; and (5) assess capacity needs for the implementation of a country-driven project for participation in the Clearing House Mechanism. The capacity gaps identified were inadequate legal authority and institutional structure of the relevant stakeholders involved in biodiversity conservation, and lack of management and low capacity in biosystematics to study the status and trends of biodiversity resources.

Assessment of Capacity Building Needs for Biodiversity, Participation in Clearing House Mechanism and Preparation of Second National Report

Activities under the second completed biodiversity project included (1) assessment of Eritrea's

capacity-building needs for the conservation and sustainable use of biodiversity resources, (2) establishment of a better clearinghouse mechanism for the management of biodiversity information, and (3) preparation of the Second National Report to the CBD Conference of the Parties based on national consultation and discussions. The outcomes contributed to the formulation of the NCSA for global environmental management.

Conservation Management of Eritrea's Coastal, Marine and Island Biodiversity

The Red Sea is a hot, nearly enclosed, saline body of water containing over 1,100 fish species and 44 genera of hard coral, resulting in one of the highest recorded levels of endemism and species diversity for a water body.[1] Around 18 percent of fish species and 20 percent of coral species are reported to be endemic to the waters. While other parts of the Red Sea have been subject to considerable disturbance, around Eritrea's coastline—due to restricted access in the coastal zone during the war—the ecosystems appear to be still pristine in most areas. With time, they too could be under increasing threat from growth in fishing activities, tourism, and oil and gas prospecting and exploration.

The CMIB project responded to the 1995 Jakarta Mandate of the Conference of the Parties by promoting sustainable use of components of globally significant biodiversity. It specifically addressed the conservation of marine and terrestrial biodiversity, focusing on coral reefs, fish, crustaceans, and marine birds, among others. The project set out to enable (1) the development of an appropriate participatory management framework; (2) the establishment of conservation management areas and programs for the conservation of habitats and species of special concern outside these areas; (3) the establishment of an information system on coastal, marine, and island biodiversity; and (4) raising public awareness on the need for and benefits of biodiversity and its sustainable use. The project's objective was to ensure the conservation and sustainable use of the globally important biodiversity of Eritrea's coastal, marine, and island ecosystems.

The CMIB was executed by the MOMR and implemented by UNDP. It received a rating of moderately unsatisfactory at completion in its terminal evaluation due to shortcomings in the outcomes achieved and lengthy delays in implementation. That evaluation notes, however, that the project supported Eritrea in acceding to a number of international conventions, including the CBD, the Convention on International Trade in Endangered Species, and the Ramsar Wetlands Convention.

The impact of the comprehensive participatory approach promoted by the CMIB to the management of sectoral activities, such as combating the causes of degradation to coastal and marine resources, as well as integrated management of shared and transboundary water bodies such as the Red Sea coastal zone and small islands (e.g., Dahlak Archipelago), was still in evidence at the time of evaluation. Capacity has been sustained and replicated within the MOMR through individuals with the ability to continue monitoring of key coastal indicator species, an institutional setup that enables management of coastal resources, scale-up of initiatives begun by the project to adjacent areas (planting of mangroves, grasses, enclosures, etc.).

The ROtI exercise found the following outcomes/impacts of the project, even though systemic issues with data availability made it difficult to decipher and quantify all the results:

- Baselines available on biodiversity and socioeconomic information were used in priority coastal, marine, and island areas; this was followed by an extensive awareness-raising campaign targeting all stakeholders, including the population along the coast.

[1] Source: Operationalization of Protected Areas Management Systems of Eritrea Project Document.

- A multisectoral steering committee, established to deal with policy issues and guidelines for a common program of action, is actively overseeing the implementation of a multisectoral coastal management framework.
- Exotic and threatened species were identified, and zoning plans prepared and published; these have been utilized in planning for the establishment of protected areas for endangered species such as sea turtles, seagrass, wild ass, rare coral species, mangrove forests, and other coastal marine resources.

The project's awareness raising on the management of conservation areas and species, training of stakeholders, and involvement of local community groups (including fishing cooperatives, women's groups, and traditional leaders) and policy developers, etc., contributed to new sectoral studies; policy actions (such as the National Coastal Policy); and conservation management plans for new areas, species, and habitats. Moreover, it established a consensual and collaborative institutional framework to interact with several interested and relevant ministries. The MOMR continues to explore innovative economic incentives for the conservation of biodiversity and its sustainable use—including measures to assist Eritrea in finding ways of compensating local communities for lost opportunity costs (e.g., loss of short-term fisheries in exchange for longer-term diversified rewards).

The ROtI found that the project also specifically allowed Eritrea to develop and implement legislation appropriate to the International Convention for the Prevention of Pollution from Ships (MARPOL), the Convention on International Trade in Endangered Species of Wild Flora and Fauna, and the RAMSAR Convention; it also enabled Eritrea to contribute to the Global Coral Reef Monitoring Network and the International Coral Reef Initiative. At a regional level, it extends Eritrea's cooperation under the GEF Red Sea Strategic Action Programme and leads to a more coordinated and holistic approach to management of the Red Sea, its ecosystems and species, and the threats they face.

The project supported establishment of a unit within MOMR, which today gathers, exchanges, and mainstreams research, providing valuable information—on, among other things, sea and coastal migratory birds, several species of turtle nesting grounds, species of coral reefs, seagrass, and dugongs—to other institutions, including universities abroad.

The ROtI concluded that the project is making moderate progress to impact. It leaves behind a heightened awareness and sensitivity, at various levels, of the values and vulnerabilities of Eritrea's Red Sea coastal resources. Among the challenges that remain—as noted by stakeholders and beneficiaries interviewed—is the need to keep communities engaged in the promotion of mangrove plantations. Mangrove plants are the breeding grounds of marine life. They are also attractive to camels and goats, which feed upon the budding mangrove leaves. The communities were sensitized and encouraged to come up with a solution, which reportedly was solved by establishing limited no-go areas for livestock.

Operationalization of Protected Areas Management Systems of Eritrea

This GEF-5 project—originally titled the Integrated Semenawi and Debubawi Bahri-Buri-Irrori-Hawakil Protected Area System for Conservation of Biodiversity and Mitigation of Land Degradation Project—will be implemented by UNDP and the Eritrean DOE. It will focus on the development of protected areas to support the biodiversity of island and coastal areas as well as of mountain and riverine ecosystems. The coastal zone is a biodiversity storehouse for the country, and overextraction of marine resources could threaten the long-term conservation of rare species and fauna. The decision to establish protected areas along the coast will go a long way toward the protection

of, among others, the rare African wild ass, as the Buri Peninsula is the only known habitat to contain a viable population of this species. The evaluation team notes that the change in name of the project seems to move away from an integrated approach to protected areas to a singular operationalization approach. As per Conclusion 2, multifocal integrated approaches would be in keeping with the ecosystem needs and challenges in Eritrea—addressing multiple stressors for land degradation, biodiversity loss, and climate change, while allowing Eritrea to tap additional funding, such as through the sustainable forest management program.

CLIMATE CHANGE

The GEF has so far supported three climate change projects in Eritrea, all of which have been completed. The main contribution of these climate change projects has been to support the removal of market barriers for renewable energy and influence the establishment of a more enabling environment for climate change action.

The projects on climate change have stemmed from the overall objective of the UNFCCC: to achieve stabilization of GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. The following summarizes the outcomes of Eritrea's climate change projects.

Enabling Eritrea to Prepare Its First National Communication in Response to Its Commitments to UNFCCC

The GEF has provided support to develop Eritrea's First National Communication to the UNFCCC, which included the development of a national GHG emissions inventory and the identification of national programs and projects for climate change mitigation, and study of agricultural production vulnerability and adaptation.

Eritrea has no country-specific emissions factors and emissions ratios; thus the GHG calculation is based on international constants from Intergovernmental Panel on Climate Change (IPCC) guidelines.

Some work has been accomplished in this regard. The two national communications establish baseline studies, including GHG inventories and calculation of the country's GHG emissions targets. This has created a foundation for effective negotiation and strategic decisions/action.

Development of a National Adaptation Program of Action

Eritrea's NAPA has helped identify immediate actions necessary to reduce the vulnerability of its fragile ecosystems and populations to the harmful effects of climate change. The NAPA addresses priorities identified by stakeholders, who recognize that climatic shocks result in serious negative impacts on rural and urban livelihoods in Eritrea and that, unless addressed, will make Eritrea even more susceptible to impacts from climate variability and change. It should be emphasized that the Eritrean NAPA was designed to be consistent with ongoing national strategies and plans and to establish a linkage between national priorities and objectives in food security, poverty reduction, and sustainable development.

In Eritrea, the groups that are most vulnerable to climate risks are those that directly depend upon natural resources for their livelihood. Women, children, and the elderly are the most affected of all groups. Other affected groups include subsistence farmers subjected to variable weather patterns; rural dwellers who depend on climate-sensitive forest and woodland products; pastoralists, whose livestock is affected by drought; urban poor affected by fuelwood shortages, price increases, etc.; and coastal and island inhabitants vulnerable to saltwater intrusion.

Eritrea faces numerous challenges and barriers when it comes to the implementation of urgent and immediate activities identified by the NAPA process. These barriers include a lack of institutional

and personnel capacities; policy gaps and a lack of regulatory mechanisms and laws, such as an environmental law and maritime code; and inadequate funding at both the national and international levels, which may limit implementation of measures identified in the NAPA.

An integrated approach to adaptation is taken through the SLM and SGP portfolio, with activities directed at rehabilitation of degraded lands and enhancing land productivity; these may benefit GHG mitigation and adaptation.

The Adaptation Fund is currently supporting a project in Eritrea: the Climate Change Adaptation Programme in Water and Agriculture in Anseba Region is being implemented by UNDP with a total grant fund of $6,520,850. The overall goal of the program is to promote increased food security in Eritrea through ecologically sustainable and climate-resilient improvements in agricultural production. The program's objective is to increase community resilience and adaptive capacity to climate change through an integrated water management and agricultural development approach in the sub-*zobas* of Hamelmalo and Habero. Specifically, the project aims to increase the availability of water through floodwater harvesting and groundwater recharge; promote a range of climate-resilient technologies for enhanced agricultural and livestock production; improve the dissemination of climate risk information among community, civil society, and government stakeholders through a community-based early warning system; and capture and disseminate lessons learned through program activities and influence policy through advocacy activities.[2]

[2] Source: "Water and Agriculture Adaptation in Anseba Region, Eritrea," UNDP Adaptation Learning Mechanism website, http://www.undp-alm.org/projects/af-eritrea/about, accessed February 2016.

Wind Energy Applications

The Wind Energy Applications project is the only FSP in climate change implemented in the country to date. The project, located in the port city of Assab, consists of a stand-alone wind turbine with generating capacity of 750 kW annually. The project also planned to establish an off-grid wind system in seven sites in villages along the coast. It aimed to transform the market for wind energy applications through the promotion of both on-grid and off-grid wind energy systems as a substitute for fossil fuel–based energy consumption, and thus contribute to the reduction of the country's CO_2 emissions. It also sought to promote socio-economic development and improve people's livelihoods by facilitating access to clean energy.[3]

The project has served as a pilot to demonstrate the potential for wind energy generation in Eritrea as a replacement for fossil fuel, wood, and other biomass consumption. The concept was an innovative solution in protecting against forest destruction. By producing cleaner and cheaper energy, it could be used in the installation of water pumps for public and school uses and electrification of health centers in remote areas, facilitating access to education, clean water, and health services. Beyond its direct economic benefits, the renewable energy project was a strategic intervention, catalyzing the realization of multiple Millennium Development Goals.

The pilot aimed to demonstrate an alternative for rural electrification to either grid extension or independent units of diesel generation sets. The government of Eritrea committed significant cash resources to the project ($1.5 million).

Renewable sources of energy such as wind contribute to improved health by lowering indoor and outdoor air pollution associated with biomass use; reduce the burden on women and young children,

[3] Source: Wind Energy Applications project Concept Review.

many of whom spend considerable time collecting and carrying firewood; and free up time for income generation. Renewable energy is a critical input for providing a host of social services, from education and health care to communications.

Project activities focused on capacity development; institution strengthening; awareness raising; demonstrating the technical, financial, and institutional viability of a grid-connected wind park; and piloting in off-grid rural areas wind-diesel hybrid and wind stand-alone systems to demonstrate that wind is a viable option within the rural electrification program as well as an alternative for productive use applications.

The decision to support both on- and off-grid wind energy within the same project primarily stemmed from the fact that Eritrea's exploitable wind resources are found in the coastal areas and adjacent mountains. The project's on-grid component tried to tap into these resources, thus reducing diesel consumption. Approximately 60 percent of the envisioned training and capacity building at the institutional and personnel levels was relevant to both on- and off-grid systems; the remaining 40 percent was specific to one system or the other. Therefore, combining on- and off-grid was a cost-effective way of building local capacities in planning, operating, and maintaining wind energy.

The systems intended to eventually meet end-user energy needs by offering a viable replacement—e.g., electric light rather than kerosene lamps or cooking food without fuelwood. At both the national and global levels, emissions from firewood, kerosene smoke, soot, etc., would be thereby reduced; this would have a positive effect on the health and living conditions of all beneficiaries, especially women and children.

Although the project overall received a satisfactory rating at completion, its off-grid component was not successful in its operations. Further, in the on-grid component, ROtI evaluation of the three initially installed turbines designed to help displace GHGs by generating power to 20 percent of the households in Assab found that only one was operational. Difficulties in transporting fuel from the capital, Asmara, to Assab hampered full operation of the turbines. The planned reduction of around 1,700 tons of CO_2 emissions per year from the on-grid project was largely not realized, reportedly due to poor repair and maintenance which interrupted production.

While the project did not result in the expected GHG reduction, it was relevant in terms of the country's piloting renewable energy sources. According to the beneficiary communities with which the evaluators conducted extensive discussions, the results could be assessed in terms of the awareness created regarding alternative and renewable energy sources—even though most members of the communities have not seen a wind turbine or how it operates.

Discussion with local authorities and residents confirmed that the ecosystem at the project sites had once been thickly vegetated with diverse species of woods and trees. An increase in population and overexploitation of forest products for fuel, agriculture, and other uses have drastically reduced the forest cover in these areas. Moreover, the drought conditions that have prevailed in the country over decades have caused the vegetation cover to dwindle drastically. Further exacerbating the situation is the fact that hundreds of truck drivers transport charcoal and fuelwood from the hinterlands to hotels and households in the port city of Assab—making biomass consumption in the project areas (both at the on- and off-grid sites) very high.

The installation of wind turbines is believed to have had little or no effect on the overall extent of wood and biomass consumption in the target sites for two reasons:

- The number of wind turbines installed was far less than expected and thus did little to overcome the adverse effects in areas already degraded by large-scale biomass destruction.

- Most of the off-grid turbines installed were not operational for long, due to technical failures and a lack of appropriate procurement.

During the first three years of its operation, the project was streamlined into the Eritrean Electricity Authority—whose staff had previously been instilled with the requisite technical skill and capability—to ensure its sustainability. The wind energy project also helped push forward the policy framework that will allow a renewable energy market to develop. The promotion of alternative and renewable energy production development to reduce the use of biomass as an energy source—particularly in areas with no access to pre-existing grids both at the household and industrial unit levels—remains relevant. Support for renewable energy in Eritrea has also come from the European Union's Development Fund, especially solar sources.

LAND DEGRADATION

Over the past two decades, the government of Eritrea has considered SLM to be a strategic intervention contributing directly to the reduction of poverty and hunger. However, land degradation projects are a relatively recent addition to the GEF country portfolio, only beginning in GEF-4. Eritrea has two land degradation projects: Catchments and Landscape Management implemented by IFAD and executed by the Ministry of Agriculture, and the SLM Pilot Project implemented by UNDP and executed by the MOLWE. However, projects classified under other focal areas (e.g., biodiversity) have made relevant contributions to the country's land degradation agenda.

The two land degradation projects were developed when Eritrea launched its NAP (MOA 2002). These projects address the interlinked problems of poverty, food insecurity, land degradation, and biodiversity losses through the development and promotion of innovative SLM technologies and land use planning approaches. As noted in the respective project implementation reports by IFAD and UNDP, their goal is to restore, sustain, and enhance the productive functions of the ecosystem.

The Catchments and Landscape Management project and the SLM Pilot Project provide specific examples of linking local livelihood benefits and sustainability. As observed and reported by stakeholders, as well as by communities engaged in the two projects, besides land degradation measures, the capacity of communities to use drip irrigation in small farms, build bench terraces, and manage nurseries has been enhanced.

Between 1994 and 2013, more than 300,000 students have been involved in tree planting and catchment treatment during their summer vacation. The Report of the Ministry of Education Summer Work Program Office for 2013 noted that more than 20 million tree seedlings had been planted, and around 10 million km of hillside terraces and over 800,000 check dams and microbasins built. A large, previously unproductive, tract of land has been reclaimed and turned into productive arable land. As a result, crop productivity has reportedly more than doubled. Area closure in the Serejeka pilot project and SGP projects in the local communities of Wara and Deki Gebru have resulted in similar outputs through reforestation, land reclamation, and soil and water conservation.

The project has included a community component dedicated to improved energy-saving stoves. These have been constructed by and largely benefit women and have achieved significant replication among Eritrean households in village communities through the SGP. The widespread dissemination of improved stoves by the SGP has led to broad adoption. Further, training in the building and use of the stoves has become an income-generating activity for women along the way, many of whom are single heads of household. The constant power interruption in all areas of the country connected to the national grid has forced many urban and rural households to build these stoves. In parallel,

the SGP has provided good opportunities for a number of communities and NGOs to learn from each other's experiences and replicate the results of GEF support.

The evaluators found no quantitative information on the scale of mitigation measures as a result of implementing SLM and SGP projects in collaboration. However, as ascertained from the field visits and focus group discussions, local SLM and SGP projects have been scaled up by the communities. Such efforts are believed to have replicative effects on the mitigation of land degradation throughout the country. In this regard, note that 16 of Eritrea's 22 SGP projects focus on land degradation.

Several communities in and around the project sites are engaged in nature-based conservation activities. Field trips by the evaluation team to some of the project sites helped confirm that tree planting and other soil and water conservation activities are still in operation at the various sites. The SLM pilot projects in general have shown a high level of success, particularly in activities such as reforestation, terracing, strengthening existing nurseries, and building energy-saving traditional stoves.

Field visits by the evaluation team verified that tree planting in these localities, with reported survival rates of 60–70 percent, has had a positive impact, providing people with improved livelihood activities. Despite such significant achievements, little progress has been made in terms of enhancing land tenure security—an issue that has been a major barrier to further success. The overall objective of SLM for communities may be difficult to achieve unless usufruct—the user rights of the land tenure system—is fully addressed.

In general, the SLM program in Eritrea has achieved significant results, including the development of

- replicable models of SLM, which representatives of beneficiary communities are using to manage land use;
- a system of knowledge management for SLM and mainstreaming of its principles into regional and national development strategies, programs, and projects;
- capacity-building programs and adaptive management systems for enabling grassroots communities to implement improved SLM.

PERSISTENT ORGANIC POLLUTANTS

Two projects in Eritrea address the POPs focal area: one enabling activity and one FSP. Both projects support capacity strengthening for compliance with the country's obligations under the Stockholm Convention. GEF support has aimed at building capacity on obsolete pesticides, completing Eritrea's inventory of POP-polluted sites, and providing for the environmentally safe management and disposal of obsolete POPs.

At the time of this evaluation, only the **enabling activity related to implementation of the Stockholm Convention** had been completed. Given the nature of the enabling activity, it is difficult to relate project outcomes to global environmental benefits and far-reaching impacts. Nonetheless, the main benefit of the project has been to foster adoption of a policy framework that provides an enabling environment within which to address POP issues in Eritrea. The POPs enabling activity supported the country in preparing a report for the Stockholm Convention in 2005 in line with UNEP–World Bank guidance. In addition, a baseline assessment conducted on the potential damage to public health and the environment further enhanced institutional and capacity building. These activities also helped strengthen ownership within the country, mainly as a result of the participatory approach used throughout the project.

The national objective of the **POPs prevention and disposal project** is to protect the environment and human health by safely managing

and disposing of stockpiles of POP-contaminated pesticides. It also aims at strengthening the regulatory and institutional arrangements for the long-term control of POPs and other toxic substances in line with the requirements of the Stockholm Convention and other related conventions.

The project has identified a total of 294 stores of obsolete pesticides located at 145 sites. The evaluation determined that the targets set by the project for the destruction of POP-contaminated stocks of obsolete pesticides were largely achieved. During project preparation, the total quantity of obsolete pesticides in Eritrea was estimated at 400 tons; few of these obsolete pesticides were stored under suitable conditions. The safer stores demonstrate that Eritrea is making a significant step toward meeting its obligations under the Stockholm Convention and is contributing—although in a limited way—to the reduction of the global POP burden.

As a result of the intensive sensitization and awareness-raising workshops and activities, national end users (farmers, civil society, etc.) have enhanced their knowledge and understanding, and are believed to have developed improved practices and behaviors. The evaluators observed this in the way end users transport, store, handle, and use these substances. The projects have also contributed to the popularization of measures that have been put in place to prevent recurrence of obsolete pesticide accumulation and POP importation or use. The improved knowledge and commitment of skilled personnel and experts on the hazards and adverse effects of POPs have contributed to decreasing the risks associated with the environment and human health. Overall, the reduction of the global POP burden is contributing toward global environmental benefits and improvements in human health due to minimization of adverse environmental effects.

MULTIFOCAL AREA

The now-completed **NCSA** initiative is the only declared multifocal area project conducted thus far in Eritrea. The objective was to determine, through a country-driven consultative process, the priority needs and a plan of action for developing Eritrea's capacity to meet its commitments to global environmental management. The project focused on capacity-related issues common to the three key international conventions related to GEF support. Project contributions included the following:

- The capacities needed across the thematic areas in a synergistic fashion were assessed.
- Using stakeholder analysis, the roles of stakeholders in the NCSA process were determined.
- The existing institutional mechanisms and developing networks were strengthened.
- Dialogue, information exchange, and cooperation among all stakeholders involved in the CBD, UNCCD, and UNFCCC were strengthened.
- A framework/mechanism for targeted and coordinated action, including requests for external funding assistance, was developed.
- Country action with respect to capacity building was linked to a broader national environmental management and action plan.
- A national implementation plan describing how Eritrea will address the priorities identified in the capacity assessment was developed.

SMALL GRANTS PROGRAMME

The SGP was introduced in Eritrea in 2009 to facilitate innovative approaches in community-based environmental programs. It has since provided support to 22 community-based activities with total GEF grants of $1,034,998 and total cofinancing of $1,956,206 (table 5.1). Of the 22 projects, 16 are focused on land degradation, 2 on climate change mitigation, 2 on biodiversity, and 3 are multifocal.[4]

[4] Source: SGP website, https://sgp.undp.org/index.php?option=com_sgpprojects&view=allprojects&Itemid

What is most interesting about the SGP is that it has become a mechanism to scale up tested and known approaches to community environmental improvements—particularly those witnessed through the full-size SLM portfolio—and thus is considered one of the most highly relevant in the country, due to its ability to enhance the technical capacity of local communities and enable them to continue similar activities adjacent to existing projects.

All projects that are supported by the SGP in Eritrea have the dual purpose of improving livelihoods and addressing the GEF focal areas. In the SGP projects, Eritrean communities confirm defining and prioritizing their needs in a participatory manner; this is transcribed into a project proposal submitted to the SGP coordinator, which is validated and approved by the SGP Steering Committee. This community-based approach has made a direct contribution to the overall operational goals of the GEF focal areas, especially to land degradation and climate change, as well as associated community benefits.

The SGP in Eritrea has brought 40 ha of land under afforestation programs, protecting them from animal grazing. Three km of sea coast land have been protected, rehabilitated, and sustainably managed under a mangrove rehabilitation project. In terms of policy influence at the local level, local authorities have shown their support of protecting areas where SGP land degradation and biodiversity projects have been implemented. This attitude and approach are demonstrated at the regional and national levels as well. At the national level, the only significant green belt area on the eastern escarpment of Eritrea, known as Semenawi Bahri, has been at risk of severe degradation from intensive farming and animal grazing over the last 20 years. The government recently declared the enclosure of the area against agricultural activities in order to protect it from further degradation and to nurture biodiversity. This action shows the resolve of the government and the willingness of local communities to protect areas from overgrazing and other human activities.

The SGP portfolio has already helped communities come to a better understanding of climate change issues and the importance of sustainable management of natural resources for improvements in their livelihood and health status. Among the results seen, and as discussed earlier, women in beneficiary communities have been trained on how to construct energy-saving stoves. Consequently, it has become common to observe nearby households making their own stoves without any outside support. The improved traditional stove project has also enabled local communities to integrate traditional knowledge in the construction of well-designed and appropriate technologies.

According to the UNDP SGP program officers, the SGP interventions are clustered in limited geographic locations in order to show the effectiveness of community-based small projects. Field observation by the evaluation team verified that the concentration of projects in the Adi Tekelezan area has helped enhance the visibility and impact of the overall portfolio in the country.

The main activities of the Rehabilitation of Hirgigo Mangrove Forests project included seed collection from established forests, mangrove planting and fertilizing, the provision of 60 small ruminants, demonstration of mangrove utilization as fodder crop, and awareness-raising seminars. As a result, 22.5 ha of sea coast were covered with 30,000 mangrove seedlings.

The goal of the Improved Traditional Stoves in Three Villages of Adi Tekelezan Subregion Project was the reduction of GHG emissions by using improved traditional stoves. Activities included the collection of gravel and selected soils for stove making, the training of women masons to construct the stoves, and planting trees in homesteads. Some 400 improved traditional stoves

=211&paging=1, accessed January 2014.

TABLE 5.1 **Projects in the Eritrean SGP Portfolio**

Project title	Focal area	Start date	Grant ($)	SGP phase
Azien-Quazien Community Based Afforestation Programme	LD	2013	50,000	5
Community Based Gullie Micro Watershed Management in Galanefhi Subregion	LD	2013	50,000	5
Community Based Rehabilitation of Degraded Land through Fruit Trees	LD	2013	50,000	5
Community based Watershed Management in Debarwa Subregion	LD	2013	50,000	5
Community Based Watershed Management in Laelaygash Subregion	LD	2013	50,000	5
Demonstration of Low Carbon Solar Home Systems and Afforestation in Qnafna	CCM	2013	149,998	5
Gerger Integrated Watershed Management in Geleb Subregion	LD	2013	50,000	5
Rehabilitation of Land Degradation through Afforestation and Introduction of Compost in Serejeka Subregion	LD	2013	50,000	5
Weki-Zagir Community Based Afforestation Programme	LD	2013	50,000	5
Community Based Soil and Water Conservation Practices in Subregion of Ghindae	LD	2012	45,000	5
Optimizing Tillage and Rainwater Conservation in the Soils of Hamelmalo Region of Eritrea for Arresting Soil Degradation and Achieving Sustainable High Crop Yields	LD	2012	40,000	5
Rehabilitation of Degraded Catchments in Elabered Subregion	LD	2012	50,000	5
Rehabilitation of Degraded Sub Catchments in Galanefhi Subregion	LD	2012	50,000	5
Bio-Gas as Alternative Source of Energy for Environmental Protection and Improving Livelihood at Household Level	BD/LD CCM	2010	31,128	4
Community Based Turtle Conservation at Dissei Island	BD	2010	33,101	4
Promotion of Community Afforestation and Land Reclamation in Sub zoba Adi Tekelezan	LD	2010	25,568	4
Promotion of Community Based Afforestation and Soil & Water Conservation at Sub Zoba Adi Tekelezan	LD	2010	33,018	4
Training of Trainers to Communities on Forest Management, Improved Traditional Stove and Nutrition	LD	2010	13,730	4
Improved Traditional Stove in Three Villages of Adi Tekelezan Subregion	MF	2009	49,260	4
Improvement of Livelihood in Rural Community through Provision of Solar Lanterns and Environmental Rehabilitation	MF	2009	40,798	4
Rehabilitation of Hirgigo Mangrove Forests and Improving Communities' Livelihood	BD	2009	26,378	4
Solar Powered IT System for the Schools of Adibeza and Adigultti in Subregion Areza	CCM	2009	47,019	4
Total			1,034,998	

SOURCE: SGP website, https://sgp.undp.org/index.php, accessed January 2014.
NOTE: BD = biodiversity; CCM = climate change mitigation; LD = land degradation; MF = multifocal.

were constructed and are now under efficient use, reducing tree cutting for firewood and improving women's health.

The goal of the Promotion of Afforestation and Land Reclamation in Subregion Adi Tekelezan project was to combat soil erosion and conserve water resources through reforestation. The main activities included protecting areas from animal grazing and other human activities, land terracing, tree planting, and awareness raising on the importance of vegetation cover in conserving water and soil from erosion. As a result of the project, 30 ha of land were protected from grazing and 59,990 seedlings were planted. The project site is now covered with vegetation.[5]

5.2 Catalytic Effects and Replication

Impact may occur immediately as a result of project activities, but more often than not, the social or ecological system that the project aims to influence may manifest change years or even decades after project completion, especially if large-scale impact is the aim. Broader adoption has been found to take place mainly through five processes (box 5.1).

Though national projects have been executed to a significant extent by the GEF Agencies and bilateral donors, it is the government that is taking the lead, acting as the real driver in the environment sector. Many of those interviewed during the evaluation expressed the view that strong involvement from the government in environmental programs has established a strong sense of country ownership and sustainability regarding GEF projects.

From 1992 to the present day, the government of Eritrea has regularly made its own financial contributions to the various GEF-supported projects. However, it also needs external assistance for financing its environmental projects. The GEF cooperates with other development partners in providing financial support, as illustrated by the community-based SLM projects. Various development partners, including the World Bank, FAO, and IFAD as well as NGOs such as the Norwegian Agency for Development Cooperation (Norad), have financed a number of land degradation and

BOX 5.1 Processes of Broader Adoption of GEF Interventions

- **Sustaining.** A GEF intervention continues to be implemented without GEF support through clear budget allocations, implementing structures, and institutional frameworks defined by the government and/or other project stakeholders. The sustained flow of benefits of the intervention is important in demonstrating the benefits and in providing incentives for adoption by other stakeholders.
- **Mainstreaming.** Information, lessons, or specific aspects of a GEF intervention are incorporated into a broader stakeholder initiative. Mainstreaming may occur not only in government but also in development organizations and other sectors.
- **Replication.** A GEF intervention is reproduced at a comparable administrative or ecological scale, often in different geographical areas or regions.
- **Scale-up.** GEF-supported initiatives are implemented at a larger geographical scale, often expanded to include new aspects or concerns that may be political, administrative, economic, or ecological in nature. Scale-up allows concerns that cannot be resolved at lower scales to be addressed, and promotes the spread of GEF contributions to areas contiguous to the original project site.
- **Market change.** GEF-supported initiatives catalyze market transformation by influencing the supply of and/or demand for goods and services that contribute to global environmental benefits. Market change may encompass technological changes, policy and regulatory reforms, and financial instruments.

[5] Source: SGP Presentation at GEF Extended Constituency Meeting, Nairobi, October 35–27, 2011.

biodiversity projects aimed at the national level and based on national priorities.

The ROtIs and field reviews by the evaluation team clearly highlighted the progress of the portfolio regarding progress to impact. This progress is particularly apparent in the land degradation and biodiversity focal areas. It is clear that the GEF and its partners in the country have generally managed to build successes out of the projects and have influenced other development partners to support global environmental objectives. The innovative approaches for participatory management of natural resources and reclamation of degraded lands in rural areas are particularly noteworthy. Lessons learned from a number of GEF-funded projects in Eritrea have advanced the development of new GEF initiatives as well as those of other development assistance programs.

There exists a high sense of ownership for GEF-supported projects, which have served as a catalyst for launching subsequent environmental programs. GEF enabling activities have played a key catalytic role in securing funding and other support for national projects—to such a degree that some GEF-supported activities have been mainstreamed and are now supported by other donors and government programs. For example, although the GEF wind energy project was not successful, its catalyzing effect is demonstrated by the €15–€20 million solar-powered projects supported under the 10th European Development Fund and the large 11th European Development Fund allocation to Eritrea to be devoted to alternative and renewable power generation.

The SGP has provided particularly good opportunities for a number of communities and NGO groups to learn from each other's experiences and to replicate the results of GEF-funded projects. As described elsewhere, several communities in and around the project sites are engaged in nature-based conservation projects with support from the GEF and the government. These projects have enormous potential for collaboration and information sharing, thereby increasing the likelihood of achieving positive and timely results.

5.3 Institutional Sustainability and Capacity Building

Evaluation of institutional sustainability of all GEF-supported projects in Eritrea led to a number of key findings:

- The major challenge related to the sustainability of results remains limited capacity at both the individual and institutional levels. Capacity strengthening has been targeted through the numerous enabling activities (6 of 12 national projects) as well as dedicated training components of FSPs targeting government staffs and institutions. Another challenge for Eritrea has been to continue project support and scale-up once funding has ended, despite the government's efforts to sustain the outcomes achieved. The exit strategies put in place have not adequately addressed the financial, technical, and managerial sustainability of project outcomes.
- Currently, the potential for institutional sustainability appears somewhat limited, given the capacity constraints that limit the scale of interventions implemented in Eritrea, particularly in the climate change and POPs focal areas.
- The absence of replacement financing from other national or international development partners could challenge the country's effort to build results that are both replicable and sustainable.
- The portfolio has performed well overall in terms of developing and strengthening the local structures involved in co-managing natural resources and their benefits. These structures have played an essential role in producing sustainable results in several projects.

5.4 Knowledge Generation and Learning

An analysis of the GEF portfolio in Eritrea clearly reveals a number of development initiatives based on lessons learned across projects. Stakeholders have played a significant role in the country's environmental programs, and UNDP has served as a key actor and information clearinghouse—which, among other things, has facilitated exchange and informal networking. Nonetheless, there is still a need for systematic coordination and exchange of lessons and experience across projects, particularly when different Agencies and government organizations implement projects.

During the initial phase of the GEF in Eritrea, lessons learned from other projects were not regularly applied to the design of new projects. There was no formal mechanism that allowed for the exchange of lessons learned across the GEF portfolio, and the sharing of lessons from GEF projects at the national level was limited. Projects were designed and applied across GEF Agencies and, as a result, opportunities for replication and scale-up of best practices were limited. This situation has gradually improved as government institutions and the GEF Agencies have expressed their willingness for a more collaborative approach. As a result, GEF-supported projects have increasingly been able to build on projects funded and supported by other partners.

Eritrea's experiences have also been incorporated into project design, particularly with regard to the establishment of priorities. Some of the key lessons learned include the following:

- A decentralized, programmatic approach is more successful than a centralized project approach.
- Cross-sectoral involvement supports a spirit of "sharing the load and the benefits" and results in more rapid implementation of planned activities.
- Community involvement is critical to incorporating the concerns of primary user groups.
- A strong emphasis on training and implementation at all levels enhances sustainability.

6. Relevance of GEF Support to Eritrea

6.1 Relevance to the Country's Sustainable Development Agenda and Environmental Priorities

The National Environmental Management Plan for Eritrea (GOE 1995) is the blueprint for "coordinating the protection and enhancement of Eritrea's natural resources, so that social and economic development endeavors are optimized in consonance with the national and sustainable use of these resources for current and future generations." The plan calls for the establishment of a program for greater environmental awareness at all levels and addressing the shortage of trained environmental planners and managers. It also calls for the following:

- An environmental management development program
- The establishment of parks, botanical gardens, and animal orphanages
- The development of coastal and marine protection systems
- Conservation education and training
- Surveys of elephant and wild ass populations
- Baseline on coral reefs

The Eritrean Constitution (1997) stipulates that for sustainable development to occur, fair and equitable sharing of resources should take place among citizens through their participation, and that the right of equal access to publicly funded social services must be ensured. In view of this, the GEF portfolio has addressed a number of environmental laws, policies, regulations, and priorities to enable the government to manage its resources sustainably.

Equally, the Macro-Policy Document, adopted in 1994 to spearhead Eritrea's comprehensive development, emphasizes the need for the protection and restoration of the environment. Its guiding principle adheres to a development orientation that is environmentally sustainable. In line with this principle, the government is striving to redress environmental imbalances by mobilizing communities to arrest further deterioration.

At the macro level, the government of Eritrea produced its most recent National Development Planning Framework in February 2009, to chart the Ten-Year Long-Term Indicative Perspective Development Plan and the medium-term Five-Year Indicative Development Plan. These documents are useful tools for managing Eritrea's socioeconomic development efforts. Among others, the documents set out a broad vision on the macroeconomic and sector policy framework, as well as potential prospects for development. In an attempt to achieve the country's environmental goals, the government has stipulated the following measures during the plan period and beyond:

- Preparation of comprehensive national baseline data on the environment, including soil loss, gaseous emissions, and water quality

- Review of existing legal provisions pertaining to the restoration, protection, and management of natural resources and the environment to determine their adequacy
- Classification of land use and development of land use maps to promote sustainable land use management, including afforestation, intensification of agriculture, and retirement of marginal lands
- Harnessing and development of alternative renewable energy sources, such as wind and solar, as substitutes for the use of fuelwood and petroleum products in food preparation and general heating
- Continuous development of nonwood construction materials and farm implements to prevent further depletion of the country's forest resources
- Creation of measures to establish appropriate vehicle emissions standards and inspection procedures, and development of adequate capacities to enforce these
- Mainstreaming of environmental protection, restoration, and enhancement in all investments and development programs by requiring appropriate environmental impact assessments, and the provision of mitigation measures and effective enforcement mechanisms for compliance with established national standards

The government has taken practical measures to implement these actions and protect the environment by designating a number of national parks, banning the use of plastic bags, developing and distributing a more energy-efficient cooking stove (Adhanet *mogogo*), and protecting forest and wildlife resources. It is believed that a combination of these measures has resulted in a marked restoration of the flora and fauna of the country. Nonetheless, more needs to be done to protect, restore, and enhance the general environment. Among other things, ratification of the Eritrean Environmental Law is urgent. Such practical measures will help people sustainably use resources and increase the chances for improved living standards, while building the necessary institutions that influence environmental policies and decisions.

The GEF and its Agencies have supported the establishment of priorities for sustainable development and environmental protection mainly through enabling activities in Eritrea. These activities have helped the country fulfill its obligations under the international conventions. The outcomes of enabling activities have often been used to set priorities in national policies and strategic documents. However, in certain cases, outcomes from such projects have not been endorsed officially mainly due to a lack of capacity for establishing and disseminating data and information. By and large, the GEF-supported portfolios have addressed these national priorities—particularly with regard to SLM, as evidenced by the large land degradation projects implemented by IFAD and UNDP.

The government of Eritrea recently established a multi-agency steering committee for the GEF-supported Operationalization of Protected Areas Management Systems of Eritrea project. The project was selected for implementation based on the critical role biodiversity can play in Eritrea's sustainable development, and the country's determination that this potential is underutilized in the absence of a national framework for protected areas. Moreover, although the coastal zone is a biodiversity storehouse for the country, overextraction of resources is threatening long-term conservation—particularly the only known habitat of the African wild ass in the Buri Peninsula. This country-driven project is a vivid example of the relevance of GEF support to Eritrea's sustainable development agenda and environmental priorities.

In general, GEF support in climate change projects, both enabling activities and FSPs as

well as through the SGP, has been relevant to the country's development and growth strategies and environmental priorities. In particular, they have helped fulfill the country's obligations under the international conventions. With regard to the GEF mandate, the projects have targeted social and economic development issues and have addressed the government's long- and medium-term indicative development plans and priorities (2009–15). For example, direct benefits to the communities include initiatives that promote energy efficiency through the use of biomass, while looking for alternative sources of renewable energy including solar, wind, and biogas.

An opportunity to enhance the overall relevance of GEF support exists in the Eritrean renewable energy sector. The main source of electricity in Eritrea is thermal generation (98 percent), with renewable energy (mainly solar and wind) accounting for only 2 percent as of 2008. Eritrea's access to modern electricity services continues to be among the lowest in the world. According to 2004 data from Eritrea's Demographic and Health Survey, only 32 percent of the population at the national level has access to electricity: 78 percent in urban areas, compared to 3 percent in rural (MOLWE 2012). Electricity contributes less than 3 percent of the country's final energy supply.

Through the national communications to the UNFCCC in 2001 and 2012, Eritrea identified a number of renewable energy sources such as geothermal, wind, and solar energy. With fuel costs rising and a lack of access to energy, the government has yet to fully develop those alternative energy sources. Aside from the Wind Energy Applications project, there have been no further GEF interventions in this area. The promotion of the development of alternative and renewable energy production in areas with no access to preexisting grids—at both the household and industrial unit levels—would be strongly relevant to the country's needs, and should be pursued in GEF-6.

6.2 Relevance to Eritrea's Development Priorities and Challenges

Poverty is often cited as the first enemy of the environment. To address the root cause of poverty and development challenges, the Eritrean government has taken important measures toward improving socioeconomic conditions since independence in 1991. Development priorities, in part, are laid out in a number of policy documents, including the Interim Poverty Reduction Strategy Paper, the Food Security Strategy, the Education Sector Development Program, the National Water Supply Emergency Action Plan, the National Policy on Gender (2004), the National Gender Action Plan (2012–16), and the National Health Policy.

In particular, the Interim Poverty Reduction Strategy Paper establishes the national priorities: enhancing the competitiveness of the national economy, human resource development and promoting social inclusion, and regional development. The National Macro-Policy for Sustainable Development of Eritrea (2009), the first policy document based on sustainable development principles, clearly indicates the necessity for development targeted at the improvement of life quality and a wider dimension covering economic, social, and environmental aspects.

In support of the government's strategy, various Agencies—most visibly, UNDP—have shown a commitment to assist in reaching these goals in accordance with the development outcomes adopted in the country's first, second, and most recent United Nations Strategic Partnership Cooperation Framework for the period 2013–16. Environmental sustainability is one of the government's expressed priorities in the framework along with basic social services, national capacity development, food security and sustainable livelihoods, and gender equity and the advancement of women.

The GEF portfolio in Eritrea aims to support these goals by maintaining the integrity of

the environment through protecting the future economic potential of biodiversity conservation, rehabilitation of degraded lands, mitigating the impacts of climate change, resilience to the effects of climate change, safeguarding against POPs, and securing ecological services. GEF projects have addressed local community development efforts through the promotion of environmentally friendly agricultural practices and natural resource management practices.

6.3 Relevance to National Action Plans within GEF Focal Areas

The evaluation revealed that GEF projects have been relevant to Eritrea's national action plans, both by supporting the activities laid out within them and—in some cases—by helping to develop the plans themselves. The GEF has provided support toward the preparation of

- the NIP, which helped identify approaches and methods for inventories of pesticides and thereby reduce the volume of waste;
- the NAPA for climate change;
- the NBSAP.

The 2007 NAPA aligned itself to the adaptation needs and projects identified in priority vulnerable sectors. Thus, developing the NAPA was relevant in that it put the national focus on reviewing the country's adaptation needs and priority projects in vulnerable sectors. Subsequent projects and their proposed actions are developing as expected. The NAPA project assists in the conservation of natural resources, as it includes proposed actions and expected results, such as the development and implementation of a management plan on protected areas through public participation, and policies on community-based protected area management.

Eritrea has received GEF funds to put its NBSAP in place, which was adopted in July 2000. The goal of the NBSAP is to restore, conserve, and manage Eritrean biodiversity so it provides environmental services and natural resources that contribute to sustainable and socially equitable national economic development (MOLWE/DOE 2000). This plan enlists a comprehensive set of actions and recognizes three core areas: terrestrial, marine, and agricultural biodiversity. The plan covers four major components: (1) the Eritrea Biodiversity Stocktaking Assessment Report; (2) the Eritrea biodiversity economic assessment; (3) assessment of national policies, and of the legislative and institutional frameworks; and (4) preparation of the first national report.

GEF support followed on from the NBSAP to enable Eritrea to prepare its first and second national reports to the CBD. The pipeline project, Operationalization of Protected Areas Management Systems of Eritrea, is directly relevant to the NBSAP's programmatic element of in situ conservation.

The two land degradation projects, which are relatively recent additions to the GEF portfolio, address the interlinked problems of poverty, food insecurity, land degradation, and biodiversity losses through the development and promotion of innovative SLM technologies and land use planning approaches.

Both projects are explicitly linked to the Eritrean NAP (2002). They identify a key outcome as addressing the priorities laid out in the NAP, including the following recommendations: to introduce community land use planning in pilot areas, to assist farmers in in situ conservation of indigenous crops, to establish protected area conservation activities, to develop agroforestry in farm forestry, to strengthen traditional coping mechanisms, to strengthen capacity of local communities in combating desertification, to establish local land degradation committees, to undertake community awareness raising, and to distribute improved traditional stoves. As noted earlier, projects classified under other focal areas (e.g., biodiversity, climate

change) have also made relevant contributions to the country's land degradation agenda.

The GEF land degradation projects in Eritrea have been designed to meet the needs of communities in addressing the problems of poverty, reduced land productivity, and biodiversity loss through the development and promotion of SLM technologies. The primary target groups are those that depend on natural resources for their survival, and yet have limited access to such resources. Such groups suffer greatly from the adverse impacts of land degradation, as they derive their livelihoods mainly from public forests and communal rangelands, and operate on lands prone to erosion. For example, all SGP projects in and around Adi Tekelezan have elements of environmental conservation and sustainable livelihood creation.

6.4 Relevance to the Achievement of Global Environmental Benefits

The main purpose of the global environmental benefits assessment of GEF projects in Eritrea is to appraise the country's contribution to the GEF mandate and its focal areas based on appropriate environmental indicators.

Eritrea, to a large extent, depends on its environmental resources including land, pasture, forestry, and fisheries. Agriculture accounts for the major portion of the country's GDP. Environmental resources have profound significance, serving as a principal form of income for rural communities and providing opportunities for poverty reduction. Environmental resources are a source of food, shelter, domestic energy, and traditional medicines, which are essential to the vast majority of the rural population.

The global environmental benefits assessment for Eritrea presents an overview of each focal area in the country, a situational analysis, and a trend analysis for each focal area. It also refers to the status of the environmental resources by GEF focal area in the country and with respect to the global environment.

The six enabling activities have helped establish the enabling framework necessary to underpin the creation of environmental policy and legislative development in Eritrea—which in turn underpins the generation of global environmental benefits. The GEF supported the development of several national environmental plans and strategies necessary for implementation of multilateral environmental agreements.

In the course of assessing the relevance of GEF-funded projects, it is noted that there has been no GEF support in addressing international waters. This omission is notable, as Eritrea shares the Red Sea—along with its tremendous and endemic marine biodiversity and fish stocks—with at least five other countries. It also sits on one of the most trafficked international shipping routes in the world.

Eritrea has had a very limited number of overt multifocal projects: the NCSA exercise and the global project Piloting Integrated Processes and Approaches to Facilitate National Reporting to Rio Conventions. However, GEF projects in Eritrea have consistently addressed more than one focal area. The SLM projects have an element of agrobiodiversity conservation as well as climate change mitigation; the CMIB project had elements of preventing coastal land degradation.

While results have been apparent at the individual project level, the portfolio has been less effective at instigating systemic and global-level environmental changes. GEF-5 funds focus principally on biodiversity and natural resource management by local communities; this project also has elements of SLM and climate change adaptation benefits.

The issue of land degradation is of particular importance in Eritrea. The current allocation system does not allow for more resources dedicated specifically for land degradation. Hence, an integrated multifocal approach to tackling land degradation and other global environmental issues

could generate more overt synergies between focal areas and the institutions that execute the projects.

Eritrea did not seek expanded support for forests in GEF-5. Using the flexibility of a multifocal area program, GEF-5 established a separate funding window of $250 million for sustainable forest management operated as an incentive mechanism for countries to enhance financing of their forests. To access $1 from the funding set-aside, a beneficiary country is required to allocate $3 from its STAR allocations to a project that addresses sustainable forest management–related concerns. This could have translated to millions more for Eritrea with a forestry project rather than a biodiversity project. Increased promotion of the sustainable forest management program by the GEF and its Agencies would help increase overall utilization of such resources in Eritrea.

6.5 Relevance of the GEF Portfolio to Other Global and National Institutions

The GEF Agencies working in Eritrea (UNDP, UNEP, FAO, IFAD, UNIDO) look to strengthen the capacity of national institutions to manage the environment and natural resources, integrate environmental dimensions into poverty reduction strategies and national development frameworks, and strengthen the role of communities and of women in promoting sustainable development. These UN Agencies indicated priority areas for Eritrea (2013–16), which are anchored to the government of Eritrea–UN Strategic Partnership Cooperation Framework (box 6.1); the framework itself is aligned with the national development priorities articulated in sector plans, strategies, and policies. The GEF is aligned to the three UN agency priority areas described in the framework, primarily the priority area of environmental sustainability.

The UN Development Assistance Framework is intended to bring "collaboration and coherence in the UN's assistance programs," an endeavor that includes a range of climate change adaptation and adaptation-relevant activities. In achieving its overarching goal of contributing to a reduction in absolute poverty in Eritrea, the UN Development

BOX 6.1 UN Strategic Priorities for Eritrea, 2013–16

- **National capacity development.** Strengthening human and institutional capacities in support of national policies and strategies. This includes engaging in advocacy and policy dialogue in areas related to sustainable livelihoods and agriculture, and integrated water resource management.
- **Sustainable livelihoods.** Developing long-term empowerment of local communities through area-based development and integrated approaches. The major area of intervention will be strengthening community productive capacity in protected area management. It will also support building local leadership capacity over a wide range of areas including planning, programming, management, and efficient utilization of resources as well as raising awareness of legal frameworks that benefit the poor.
- **Environmental sustainability.** Contributing to the implementation of the government of Eritrea's overall strategy on integrated land, water, and environmental resource management. The specific areas of support will be (1) integrated water resource management, (2) conservation and sustainable use of natural resources and biodiversity through the establishment of new protected areas and application of the SLM system, (3) increasing community resilience and adaptive capacity to climate change through implementation of appropriate mitigation and adaptation programs aimed at reducing climate change risks and community vulnerability, and (4) support in advocacy and awareness raising on the effects of climate change and building adaptive capacity of national institutions to undertake adaptive and mitigation assessments to generate information for decision making.

Assistance Framework pursues activities in six major areas, including the highly relevant areas of food security and sustainable agricultural development.

During the past several years, UNDP, as the lead in-country UN agency representative, has assisted Eritrea in implementing several important environment and energy-related international conventions and agreements. The UNDP-Eritrea Country Programme Action Plan for 2007–11 was geared toward the promotion of sustainable management of natural resources, renewable energy, and the environment. UNDP specifically supported government efforts to (1) promote and use renewable and other energy sources; (2) ensure sustainable management of Eritrea's coastal, marine, and island biodiversity; and (3) implement selected elements of the NAP. Good lessons were drawn from that plan for the development of the current Country Programme Document 2013–16 and for the Strategic Partnership Cooperation Framework. The GEF portfolio is of particular relevance to Outcome 7 for Environmental Sustainability, which focuses mainly on strengthening the capacity of national institutions to establish the management systems of protected areas, forest tree restoration, mangrove and biodiversity species protection systems, SLM systems, and reduction of forest deterioration. It calls for the support of studies and assessments on natural resource and environmental management issues.

GEF projects in Eritrea have been strategically prioritized by the GEF operational focal point, taking into account existing opportunities and constraints, relevance to the national agenda, and project objectives. Ownership is further demonstrated by the fact that GEF projects in Eritrea originate within national institutions, including the DOE, the Ministry of Agriculture, and the Ministry of Energy and Mines.

7. Efficiency of GEF Support to Eritrea

7.1 Time, Effort, and Financial Resources for Project Processing

This section presents a review of the efficiency of GEF-supported activities in Eritrea, as measured by the time and financial resources it requires to process a project through the GEF project cycle. This cycle has evolved over the years, and the present analysis refers to the project preparation and implementation stages approved by the GEF Council in June 2007. For example, a limit of 22 months for project development was imposed during GEF-4. This limit was further reduced to 18 months for GEF-5.

To enable comparisons over time, this discussion assigns dates for earlier enabling activities, MSPs, and FSPs to the current cycle's five major stages (A–E), as shown in figures 7.1 and 7.2. Estimating these figures raises several problems, mostly related to the lack of full and reliable information residing in various places (e.g., the GEF Secretariat, the GEF Agencies, and the focal point mechanisms).

The GEF PMIS provided, in a few cases, inconsistent information, which had to be cross-checked with information collected by GEF Agencies and national executing agencies. In general, however, all information up to the approval and disbursement of GEF funds to GEF Agencies is accurate. Information on the full costs supported by project components or implementers in the formulation phase, particularly government and civil society organizations, was not always available. In some cases, information on dates is incomplete.

PROJECT PREPARATION COSTS

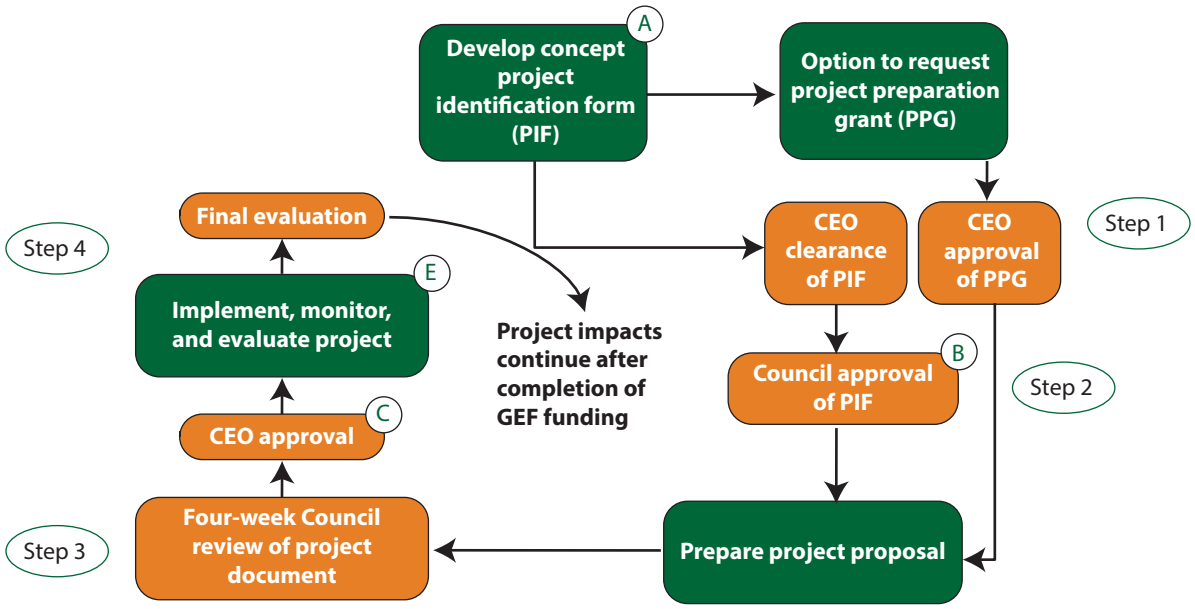
The cost of preparing a GEF project has been derived from the PMIS data set. It includes the cost of a PDF or PPG (for projects approved after 2007). Table 7.1 presents details on project preparation support provided by the GEF to national projects in Eritrea. Of the 12 national projects in the GEF's Eritrea portfolio, 6 have submitted a PDF or received PPG support. One enabling activity and all six FSPs have received GEF project preparation support. By focal area, all land degradation and multifocal area projects have received preparation support, compared to two of the four biodiversity projects and one of the two POPs projects. One of the three climate change projects received preparation support.

Total preparation support provided to Eritrean projects by the GEF amounts to $1.05 million, or 19.9 percent of the total funding for these seven projects. Across the entire portfolio of national projects, the preparation grants represent 4.3 percent of the GEF funding provided for FSPs and 0.1 percent of GEF funding for enabling activities.

PROCESSING TIME

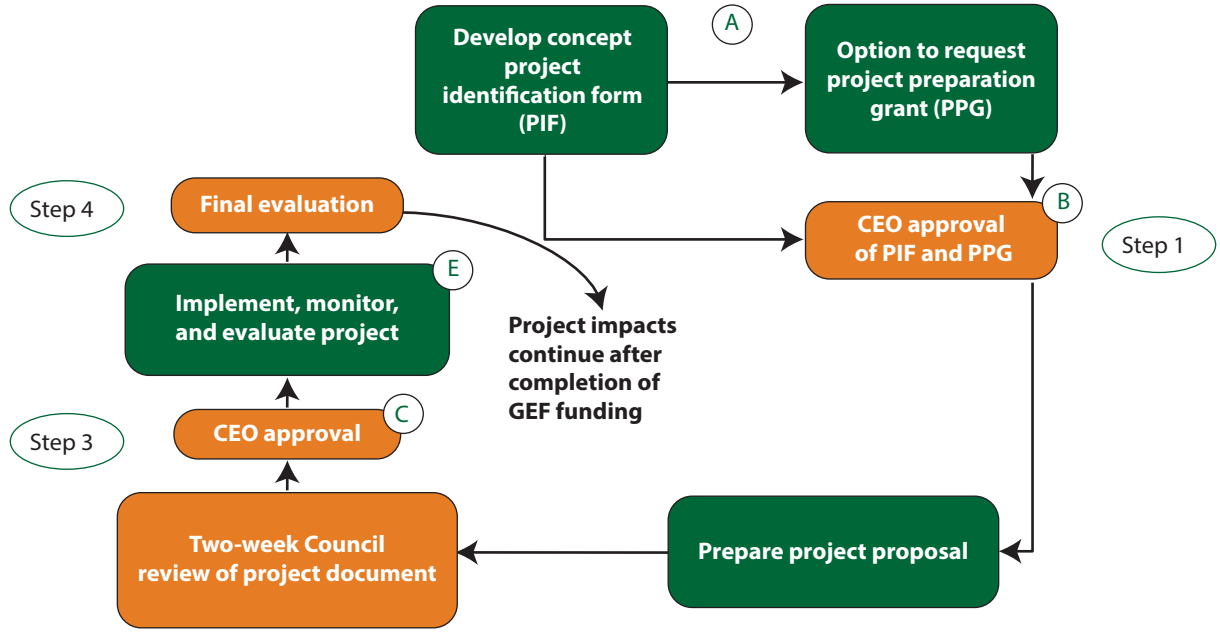
Table 7.2 and figure 7.3 present the distribution of time taken by proposals to move from entry into the GEF pipeline to project start-up for FSPs and enabling activities. GEF FSPs take anywhere

FIGURE 7.1 The GEF FSP Project Cycle since 2007



NOTE: Stage D (not shown) refers to Agency approval and the procedure differs by Agency.

FIGURE 7.2 The GEF MSP Project Cycle since 2007



NOTE: Stage D (not shown) refers to Agency approval and the procedure differs by Agency.

TABLE 7.1 Project Preparation Cost as Percentage of GEF Grant Support

GEF ID	Project	Modality	GEF Agency	Focal area	Status	GEF phase	GEF grant ($)	PDF/PPG ($)	Total GEF grant ($)	PDF/PPG as % of total grant
137	National Biodiversity Strategy, Action Plan and First National Report	EA	World Bank	BD	C	GEF-1	275,000	n.a.	275,000	n.a.
278	Enabling Eritrea to Prepare Its First National Communication in Response to Its Commitments to UNFCCC	EA	UNDP	CC	C	GEF-1	303,850	n.a.	303,850	n.a.
411	Conservation Management of Eritrea's Coastal, Marine and Island Biodiversity	FSP	UNDP	BD	C	GEF-1	4,986,000	311,800	5,297,800	5.89
1136	Wind Energy Applications	FSP	UNDP	CC	C	GEF-3	1,950,561	315,000	2,265,561	13.90
1506	Assessment of Capacity Building Needs for Biodiversity, Participation in Clearing House Mechanism and Preparation of Second National Report (add on)	EA	World Bank	BD	C	GEF-2	170,000	n.a.	170,000	n.a.
1584	National Capacity Self-Assessment (NCSA) for Global Environmental Management	EA	UNEP	MF	C	GEF-3	198,000	25,000	223,000	11.21
1959	Development of a National Adaptation Program of Action (NAPA)	EA	UNDP	CC	C	GEF-3	200,000	n.a.	200,000	n.a.
3139	Enabling Activities to Facilitate Early Action on the Implementation of the Stockholm Conv. on POPs	EA	UNIDO	POPs	C	GEF-4	346,500	n.a.	346,500	n.a.
3362	SIP: Catchments and Landscape Management	FSP	IFAD	LD	O	GEF-4	4,350,000	150,000	4,500,000	3.33
3364	SIP: Sustainable Land Management Pilot Project	FSP	UNDP	LD	O	GEF-4	1,820,000	50,000	1,870,000	2.67
3987	Eritrea: Prevention and Disposal of POPs and Obsolete Pesticides	FSP	FAO	POPs	O	GEF-4	2,150,000	50,000	2,200,000	2.27
4559	Operationalization of Protected Areas Management Systems of Eritrea	FSP	UNDP	BD	P	GEF-5	5,878,000	150,000	6,028,000	2.49
Total								1,051,800	23,679,711	4.44

NOTE: n.a. = not applicable; SIP = strategic investment program; EA = enabling activity; BD = biodiversity, CC = climate change, LD = land degradation, MF = multifocal; C = completed, O = ongoing, P = pipeline.

TABLE 7.2 **Duration of the GEF Project Cycle for FSPs in Eritrea (Months)**

GEF ID	Project	A→B	B→C	C→D	D→E	A→C	B→D	B→E	C→E
4559	Operationalization of Protected Areas Management Systems of Eritrea	5	26	n.a.	n.a.	31	n.a.	n.a.	n.a.
1136	Wind Energy Applications	n.a.	6	1	n.a.	n.a.	7	7	1
411	Conservation Management of Eritrea's Coastal, Marine and Island Biodiversity	n.a.	7	12	n.a.	n.a.	19	19	12
3362	SIP: Catchments and Landscape Management	5	22	n.a.	n.a.	17	n.a.	33	12
3364	SIP: Sustainable Land Management Pilot Project	5	26	1	1	21	27	27	1
3987	Eritrea: Prevention and Disposal of POPs and Obsolete Pesticides	2	22	1	3	24	23	40	18
Average time		4	18	3	2	23	19	25	9

NOTE: SIP = strategic investment program; n.a. = not applicable. Project cycle stages are as follows: A = entry into GEF pipeline; B = appproval by Council/work program Inclusion; C = CEO endorsement/approval; D = GEF Agency/executing agency approval; E = project start-up.

between 7 and 30 months to start implementation from day of entry into the GEF pipeline. There is no standard for the overall project time-lapse from pipeline to start date, but there are measures of effectiveness along the way. In Eritrea, all six FSPs have taken more than 18 months from work program entry to CEO approval. Stakeholders interviewed noted that the GEF project preparation and formulation process is perceived as complex and time-consuming.

The enabling activities have exceeded their planned execution time frames. Three of the five enabling activities were delayed: one by one year, and the other two by two years. In the case of enabling activities, a lack of information on some dates presented challenges in determining and assessing the duration of each stage of the project cycle. Moreover, although enabling activities are set up in a way that allows for a swift approval process, no specific time standard has been set. The duration for enabling activities to move from CEO approval to Agency/executing agency approval (Stage B to D) varies from eight days to seven months.

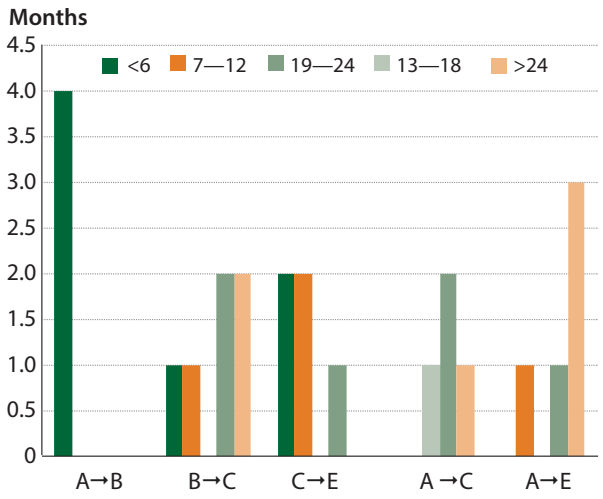
IMPLEMENTATION DELAYS

Implementation delays were reported for two projects, the CMIB project and the Wind Energy Applications project. In both cases, delays were due to capacity constraints. In the Wind Energy Applications project, implementation began to slow after the project's first six to eight months. The delay was due to unfamiliarity of the project management unit staff with the wind energy–related international competitive bidding process and requirements, failure to provide sufficient technical support to the project management unit, and serious delays in the preparation of bid documents. According to the terminal evaluation, the procurement process for the wind farm project delayed the project milestones significantly because technical assistance was not provided, there were delays in civil works in the Assab wind farm component, and there were failed contract negotiations and cost increases which necessitated top-up financing from UNDP.

TRENDS IN DROPPED OR CANCELED PROJECTS

A total of 15 projects and proposals are listed in the PMIS for Eritrea. Of these, 12 projects are active or have been completed; and 3 have been dropped or canceled, representing 20 percent of the total projects entering the GEF pipeline for the country. During GEF-3, one project was dropped and three were completed. In GEF-4, two projects

FIGURE 7.3 **Time Taken (Months) for FSP Proposals from Entry into the GEF Pipeline to Project Start**



were dropped or canceled, two were under implementation, and two were in the pipeline. There were no dropped or canceled projects in GEF-1 or GEF-2, and four projects were completed in these two phases. To reduce its rate of dropped or canceled projects—and the associated waste of resources—Eritrea should consider giving more attention to portfolio planning.

COFINANCING

Cofinancing is considered to be an indicator of a project's sustainability, country ownership, and mainstreaming of GEF activities and a way to mobilize additional resources for the GEF's achievement of global environmental benefits.

GEF projects in Eritrea have generated cofinancing that is almost twice as much as the value of the GEF grants. The national portfolio has collectively generated cofinancing of about $41.6 million for GEF grants of $22.6 million. Cofinancing is often made available in a timely manner. In most cases, there is also alignment between promised and materialized cofinancing. However, materialized cofinancing for the Catchments and Landscape Management project has thus far been much less than had been promised.

Analysis of cofinancing data shows that FSPs have generated more cofinancing by modality; by focal area, land degradation has generated the most cofinancing.

COST-EFFECTIVENESS

Review of the terminal evaluations and terminal evaluation reports for two of the completed biodiversity projects showed that delays in project start-up resulted in using more administrative budget as compared to enabling activities. For instance, in the CMIB project, the terminal evaluation review reported that the project was highly inefficient during the first five years of implementation. During this period, it spent about 20 percent of the project budget with little accomplishment. Restructuring after five years of implementation did help the project in cutting its losses. The project was expected to close after a four-year delay, implying a significant sum being diverted from the programmatic activities to administrative costs.

For the Wind Energy Applications project, the terminal evaluation states that the procurement process solicited 22 expressions of interest; subsequently, three bids were received from the nine invited prequalified suppliers. Two of the bidders pulled out during the process, resulting in only one fully responsive bid—which was 80 percent higher than the budgeted amount. Unfortunately, the project management unit had no option but to accept the bid, due to limited interest on the part of suppliers. The period from prequalification to commissioning in November 2008 was 38 weeks, compared to 16 weeks in the project document.

The project's original budget was directed to the procurement of equipment and executing civil works, capacity building, and barrier removal programs. Given the financial constraints faced by the government, the GEF agreed to finance, on a grant basis, half of the equipment of the decentralized systems component and the grid reinforcement in addition to the training and technical assistance components. Thus, the bulk of the equipment

procurement was left to government financing. UNDP stepped in to provide additional funding to meet the additional costs associated with price escalation. In hindsight, the original cost estimates for the turbines and equipment were not realistic, in light of the small number of units ordered and the impact this had on pricing.

7.2 Coordination and Synergies

While mechanisms for networking among GEF Agencies, national institutions, GEF projects, and other donor-supported projects and activities exist, they have not been fully effective in precipitating better synergies in GEF project programming and implementation.

The Eritrean operational focal point office has, on several occasions, chaired a steering committee to guide discussions on GEF portfolio formulation, SGP initiatives, etc. All GEF-supported projects had national steering committees that were formed to guide the project management units as well as to set priorities for project activities. However, the potential for increased synergy and collaborative efforts among the Agencies and national institutions involved in programming and implementation could be further realized.

Roles and areas of cooperation between the government and UNDP, the predominant Agency in the GEF Eritrea portfolio, are clearly specified for interactions even beyond the GEF portfolio. While in practice the mechanisms are functioning adequately, Eritrean national institutions could be better informed of each other's relevant activities; also, there are few forums available for all interested parties to discuss the challenges of sustainable livelihoods, land degradation, and biodiversity loss.

For example, coordination of the country's two land degradation projects appears to have weaknesses at the national level. More synergies were visible at the regional level (i.e., between the line ministries and local administrations), but coordination between the various executing agencies and the operational focal point at the national level appears to be less transparent. There is a tendency for institutions to move ahead with their own agendas and to have no defined schedule of interagency meetings and contacts. Some recent improvements were noted, however, with institutions moving toward greater mutual awareness and willingness to coordinate activities, although cases of ambiguity still exist.

Efforts have been under way to achieve more synergies across the various national institutions for GEF-supported activities.

7.3 Monitoring and Evaluation for Project Adaptive Management

Two projects have been completed within the Eritrea portfolio. One, the CMIB project, received a terminal evaluation report rating of moderately unsatisfactory, even though its project outcomes were rated as likely to be sustainable. This rating reflects the quality of the project outcomes themselves and the quality of project execution. The other completed project, Wind Energy Applications, received an outcome rating of satisfactory. Both projects were studied further as part of ROtI analysis for their progress to impact.

Supervision missions were conducted for two ongoing projects: the Catchments and Landscape Management project and the SLM Pilot Project. Both projects were rated as satisfactory and found to be achieving both their global environmental and developmental objectives.

The evaluation found that most GEF projects have M&E protocols in the form of project implementation reports and terminal evaluations. However, these were not always available within the GEF PMIS. Further, once the reports were compiled, a review concluded that monitoring information has not been adequately used to make timely corrections to problematic issues, especially those related to outcome sustainability. For example,

the overly ambitious CMIB project was allowed to continue until close to its completion date before its parameters were redefined. Supervision reports for the Wind Energy Applications project did not record the inappropriate procurement of technical services, equipment, and supplies. This lack not only caused delays, but ultimately affected the establishment of the project's off-grid wind energy component. All supervision reports and even the terminal evaluation conclude satisfactory results, even for M&E.

The executing institutions for GEF-supported programs in Eritrea have made progress in terms of establishing mechanisms for M&E; unfortunately, these institutions meet only infrequently to discuss procedural and operational matters related to GEF projects. Consequently, much remains to be done in terms of putting mechanisms and procedures into practice, as the record of results is not adequately shared and reported on regularly. In interviews, relevant government officials cited insufficient funds, a shortage in transport vehicles, and limited human capacity as formidable constraints to putting effective M&E practices into operation.

M&E appears to be well established and mainstreamed in SGP projects. The community-led program has national and local steering committees to oversee program design, implementation, and M&E. These steering committees are made up of representatives from local NGOs, government, academia, UNDP, cofunding donors, beneficiary communities, the private sector, and the media. Among other responsibilities, the committees undertake periodic field visits and review M&E reports to inform their decision making regarding the activities of ongoing projects. SGP beneficiary communities also hold quarterly meetings to discuss project performance.

Stakeholders for FSPs are also reported to meet, although not on a regular basis. However, there is no evidence that the practices have been used as feedback for informed decisions and adaptive management by decision makers and project management.

Annex A: Country Response

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دولـة ارتـريـا
وزارة الاراضي و المياه و البيئة
قسم البيئة

THE STATE OF ERITREA
Ministry of Land, Water & Environment
Department of Environment

ቁ. መዝገብ DOE 01/340/2015 رقم السجل
Ref. No.

ዕለት 26/01/2015 التاريخ
Date

To: Ms. Naoko Ishii
CEO and Chairperson
Global Environment Facility

Subject: *GEF Country Portfolio Evaluation (CPE) for Eritrea*

Dear Ms. Ishii

The Government of the state of Eritrea appreciates the GEF support effort in general and the GEF Evaluation office in particular for the preparation of the GEF Eritrea Country Portfolio Evaluation(CPE) (1992-2012) during the period (January, 2013-December, 2014).

We are very grateful to the evaluation team for the performed work in the preparation and consolidation of such a comprehensive CPE report.

We believe that the findings and recommendations in the report will be useful for Eritrea to further improve performance of GEF supported activities. Furthermore, they will be fit into national strategies and priorities as well as within the global environmental mandate of the GEF. However we agree that in some areas there are limitations and gaps that we need to properly address and taking as lesson learned, in order to achieve sustainable results.

In this context we support and agree with the Country Portfolio Evaluation conclusions and will do our best to implement the recommendations.

Taking this opportunity we would like to ensure the continuation of the excellent relation between the State of Eritrea and the GEF.

Looking forward to a fruitful collaboration

Best regards

Mogos Weldeyohannes
D/G Department of Environment, Ministry of Land, Water and Environment
GEF Political and Operational Focal Point

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Annex B: Quality Assurance Statement

Quality Assurance Report
GEF Country Portfolio Evaluation, Eritrea (1992-2012)

1. Background

The Quality Assurance (QA) panel of the GEF Country Portfolio Evaluation (CPE) conducted in Eritrea has thoroughly assessed the TOR and has commented on the aide memoire and the draft CPE document. This report is thus a general evaluation and comment on the quality of the final CPE report.

2. Evaluation of the GEF CPE Eritrea

The CPE carried out has addressed all the aspects outlined in the TOR and is acceptable. The following points are however worth mentioning:

2.1 The evaluation team has devised a workable methodology to evaluate all the projects and their outcomes and had used appropriate tools and methodologies. The methods used have managed to extract the situation of the projects appropriately. Since most of the projects were enabling activities their execution and implementation had been smooth. The tools developed have enabled the evaluators to assess all components of the projects and therefore have a good feel on the implementation of the projects and their impacts.

2.2 The evaluation team also used methodologies that evaluated the impact of the projects at the stakeholder's level and also at the management level and thus has taken care of the wholesomeness of the approach.

2.3 The evaluators had some limitations in for example lack of reliable information of some project benefits as well as the complexity of separating direct attributions of the GEF projects. Despite, this however, the evaluators have used both qualitative and quantitative methods and tools of evaluation that enabled them to have a complete picture on the implementation and the impact that the projects had on the beneficiaries and the overall environmental situation of the country.

2.4 The CPE has also addressed the execution of the projects both at the country level, project level and agency level. At the country level, the evaluators have tried to relate the outcomes of GEF projects in view of the national development strategies and agendas.

2.5 The evaluators have not only done the necessary desk review and study but have visited the project sites and verified the outcomes of the projects. They have also conducted beneficiary assessment where applicable. The team has utilized both primary and secondary data for its evaluation and has also generated data from the interviews and discussions they had with the various stakeholders, focus groups, beneficiaries as well as implementation agencies.

2.6 The evaluators have conducted fruitful stakeholders consultation workshops and obtained feedback from all relevant stakeholders. They have also incorporated the comments in the final report.

2.7 The evaluation team has followed thoroughly the evaluation matrix, with careful details on the indicators. They also made adequate evaluation analysis of the data and triangulation on the collected information to synchronize evidences from various resources. ROtI and field visits were also conducted. The evaluations' approaches used have been very systematic in that all levels of stakeholders were addressed. This provided a wholesome picture of the status of each project.

2.8 The methodologies and approaches used addressed both the scientific and technical issues of the project goals.

3. Comments on limitations

The evaluation team had also their limitations which may have an impact on the true evaluation of the outcome of each project especially those with long term effects and return to beneficiaries. For instance, since the evaluation of the GEF projects was done over a twenty years period of time, the immediate implementers and the specific effects of the GEF projects were not clearly singled out.

The evaluation team also was able to use the GEF evaluation methods for CPEs and despite the difficulties experienced in obtaining data, the fact that they were able to utilize the appropriate tools should be appreciated.

4. Conclusion

The CPE conducted is very useful to have a good sense about the impact of the GEF projects in various focal areas such as biodiversity, climate change, land degradation, etc. Most of the EA projects are finalized and have resulted in the production of important documents that could be used as basis for research and further actions in pertinent areas. The ongoing projects can also provide good references for similar projects that are being embarked in the future.

The methodologies used to evaluate the GEF projects were sound and some are being used for the first time in Eritrea to evaluate projects such as triangulation, ROtI, etc. This has enabled the country to build capacity in those areas and thus can be considered an added value to the impacts of GEF funding in the country.

It is very important to mention that the GEF Evaluation Office has made a good decision to give Eritrea the opportunity to be in the pilot project for CPE. The evaluation exercise undertaken has provided the team of experts and the relevant stakeholders the opportunity to look back at the impacts of projects that were considered as done. It is a lesson to us that the impact of projects in the long term is very important even though the impact of one cannot be singled out. However, the collective effect on many such efforts is worth measuring. The lessons learned in areas like; the need for coordination among stakeholders, the timely monitoring and evaluation of projects, and the incorporation of sustainability mechanism in projects, etc., will certainly be of value to the successful implementation of future projects. It is worth underlining that there is wealth of feedback and knowledge sharing that can be built upon the results obtained.

Dr Bissrat Ghebru

17/12/2014

Ms Astier Redaezghi

Annex C: Terms of Reference

This annex presents the June 2013 terms of reference for the Eritrea Country Portfolio Evaluation as approved by the GEF Evaluation Office Director. Minor edits have been made for consistency.

C.1 Background and Introduction

Country portfolio evaluations are one of the main evaluation streams of work of the GEF Independent Evaluation Office.[1] 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 have increased in GEF-5 with the increased emphasis on country ownership and country-driven portfolio development.

GEF-eligible countries are chosen for CPEs based on a selection process and a set of criteria including the size, diversity, and maturity of their portfolio of projects (GEF IEO 2010). Among several considerations, Eritrea was selected for evaluation as it is part of Sub-Saharan Africa and a least developed country. Eritrea has a comparatively large, diverse, and mature portfolio emphasizing climate change and biodiversity; and has high levels of cofinancing. Furthermore, Eritrea includes several ongoing projects as well as those on the verge of implementation.

Eritrea is situated in an arid and semiarid region of Sub-Saharan Africa. After a war lasting approximately 30 years, it gained independence in 1991. It is bordered by Sudan in the west, Ethiopia in the south, and Djibouti in the southeast; its capital is Asmara. The country's northeastern and eastern parts have an extensive coastline along the Red Sea, directly across from Saudi Arabia and the Republic of Yemen. The nation has a total area of approximately 120,000 km^2, including approximately 390 islands; the most prominent of these islands are the Dahlak Archipelago and several of the Hanish Islands (MOLWE 2001).

Eritrea is a multi-ethnic country, with nine recognized ethnic groups: namely, the Afar, Bilen, Hidarb, Kunama, Nara, Rashaida, Saho, Tigre, and Tigryna. The estimated population is around 6 million. Most residents speak Afro-Asiatic languages, either of the Semitic or Cushitic branches. Among these communities, the Tigrinya make up about 55 percent of the population, and the Tigre constitute around 30 percent. In addition, there are a number of Nilo-Saharan-speaking Nilotic ethnic minorities (MOLWE 2001).

Despite its small land area, Eritrea has diverse climate zones, mainly due to its large topographic variations. Physiographically, the country is divided into the central highlands (more than 2,000 m above sea level), the midlands (1,500–2,000 m above sea level), and the lowlands (less than

[1] For a complete list of countries having undergone CPEs, please refer to the GEF Independent Evaluation Office website.

1,500 m above sea level). The rainfall pattern is affected by this topographic variation, with annual rainfall varying from about 100 mm in the lowlands to about 700 mm in the central highlands. Further, Eritrea is divided into six agro-ecological zones: moist highlands, arid highlands, subhumid highlands, moist lowlands, arid lowlands, and semidesert. The variations in mean annual temperature range from 15°C in the moist and arid highlands to 32°C in the semidesert (Kayouli, Tesfai, and Tewolde 2006).

Eritrea's Human Development Index is 0.351, ranking it 181 out of 187 countries. The Human Development Index for Sub-Saharan Africa as a region increased from 0.366 in 1980 to 0.475 today, thus placing Eritrea below the regional average.[2] Since its independence from Ethiopia in 1991, Eritrea has experienced economic problems similar to those of other small developing country states, accentuated by the recent implementation of restrictive economic policies.[3] However, according to the World Bank's June 2012 Global Economic Prospects, Eritrea became one of the fastest growing African economies in 2011, with GDP growth projected at 14 percent, up from an estimated 2.2 percent in 2010. This growth was mainly stimulated by favorable harvests and the mining sector (mainly gold), which has attracted substantial foreign direct investment.[4] However, growth in absolute terms is small. Eritrea is one of the least developed countries in the world, with an average annual per capita income of $403 in 2010.

The predominant economic activity for more than two-thirds of the population is rain-fed agriculture. It is a risky enterprise, and food security remains one of the government's main concerns. Favorable rains and rehabilitation of rural infrastructure have led to improved agricultural performance and food security in the last three years. Large fiscal and trade deficits are managed through price, exchange rate, and interest rate controls; these have led to a shortage of foreign exchange and a fall in private sector activity. The size of the public debt in proportion to GDP is a concern. The official annual inflation rate rose to 13.3 percent in 2011, from 11.6 percent in 2010; this was much improved compared to 29.5 percent in 2009. In the longer term, sustained real economic growth of 7 percent or more will be required for the country to reach the Millennium Development Goal of halving the proportion of people living in extreme poverty by 2015.

Major environmental issues faced by Eritrea are continued deforestation, desertification, soil erosion, overgrazing, and significant land loss as a result of the presence of hundreds of thousands of landmines. Significant strides toward sustainability and environmental recovery have been made by the government of Eritrea. It has embarked on a program of reforestation (in 1900, 30 percent of the country was forested land, despite heavy logging) and to prevent wood from being used as a fuel source. Land degradation is a central issue causing serious concern. Improper land use practices are the primary cause of degradation. In the central and northern highlands, land degradation is mainly due to water erosion.

As the main form of land use in Eritrea is agricultural and pastoral, land management to protect the arable land from land degradation is the primary concern. The major constraint facing soil conservation and water management has been the traditional Dessa land tenure system (village ownership). The country's heavy dependence on biomass fuel has led to aggravated deforestation, soil erosion, and flooding.

Deforestation is another concern, with a drop in forest cover to less than 1 percent, compared to

[2] UNDP Human Development Reports data, http://hdr.undp.org/en/data, accessed May 2013.

[3] IndexMundi, Eritrea Economy Profile, http://www.indexmundi.com/eritrea/economy_profile.html, accessed May 2013.

[4] World Bank Eritrea Country Overview, http://www.worldbank.org/en/country/eritrea/overview, accessed May 2013.

30 percent in the last century. Factors including agricultural expansion, increased firewood consumption, heavy livestock grazing, internal strife, and construction of traditional houses known as *hidmos* in rural areas are associated with the loss of forest cover.[5]

Water is a scarce commodity in Eritrea, with no perennial water source, as all rivers and their tributaries are mostly seasonal and intermittent. Groundwater is the major source of water. But no drinking water standards have been formulated, which has resulted in an increase in water pollution affecting the quality of groundwater. There is a high amount of fluoride, which is a chemical detrimental to human health. Sanitation and solid waste management are other issues that need to be addressed. Industrialization in Eritrea started quite early; this has resulted in industrial pollution, as the machinery and technology can be outdated. The total quantity of hazardous liquid waste generated from industry is some 3,640 metric tonnes per year (Srikanth 2003).

The GEF has been active in Eritrea since 1992 through 12 national projects. This portfolio includes three climate change projects, four projects in biodiversity, one multifocal area project, two in POPs, and two in land degradation (table C.1). Total GEF grants are approximately $22.62 million, with $41.55 million in cofinancing. The Eritrean projects are spread evenly across the GEF project cycle, with four projects completed, two ongoing, and six in the pipeline (these include projects with CEO, Council, and Agency approval).

The portfolio in Eritrea is split as follows: UNDP has been the main channel for support, implementing six projects accounting for over $15.13 million in GEF funding; the World Bank has implemented about $0.45 million in GEF support through two projects; IFAD has one project with a total GEF budget of $4.35 million; UNEP, UNIDO, and FAO each have one project accounting for GEF funding of about $0.20 million, $0.35 million, and $2.15 million respectively. Respective cofinancing amounts by focal area are indicated in table C.1.

[5] It is estimated that 100 trees have to be felled to construct one such traditional house (GOE 1995).

C.2 Objectives of the Evaluation

The purpose of the Eritrea CPE is to provide the GEF Council with an assessment of the results and performance of GEF-supported activities in the country, and of how GEF-supported activities fit with national strategies and priorities as well as within the global environmental mandate of the GEF. Based on this overall purpose, the Eritrea CPE will have the following specific objectives:

- Evaluate the *effectiveness* and *results* of GEF support in Eritrea, with attention to the sustainability of achievements at the project level and progress toward impact on global environmental benefits[6]
- Evaluate the *relevance* and *efficiency* of GEF support from several points of view: national and regional environmental frameworks and decision-making processes, the GEF mandate and the achievement of global environmental benefits, and GEF policies and procedures[7]
- 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) Eritrea on its collaboration/

[6] *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.

[7] *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.

TABLE C.1 **Support to National Projects by Focal Area and GEF Agency**

Focal area	Agency	No. of projects	GEF support ($)	Cofinancing support ($)	Total support ($)
Climate change	UNDP	3	2,454,411	2,953,136	5,407,547
	Subtotal	3	2,454,411	2,953,136	5,407,547
Biodiversity	UNDP	2	10,864,000	11,395,400	22,259,400
	World Bank	2	445,000	15,000	460,000
	Subtotal	4	11,309,000	11,410,400	22,719,400
Multifocal area	UNEP	1	198,000	20,000	218,000
	Subtotal	1	198,000	20,000	218,000
POPs	FAO	1	2,150,000	3,209,153	5,359,153
	UNIDO	1	346,500	35,000	381,500
	Subtotal	2	2,496,500	3,244,153	5,740,653
Land degradation	UNDP	1	1,820,000	2,250,000	4,070,000
	IFAD	1	4,350,000	21,678,000	26,028,000
	Subtotal	2	6,170,000	23,928,000	30,098,000
Total		12	22,627,911	41,555,689	64,183,600

participation in the GEF, and (3) the different agencies and organizations involved in the preparation and implementation of GEF-funded projects and activities

The Eritrea CPE will also be used to provide information and evidence to other evaluations being conducted by the Office; for example, the SGP evaluation and the Fifth Overall Performance Study (OPS5) to the GEF Replenishment Committee.

The Eritrea CPE will analyze the performance of individual projects as part of the overall GEF portfolio, but without rating such projects. CPEs are conducted to bring to Council attention different experiences and lessons on how the GEF is implemented at the national level in 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 CPEs 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. The Eritrea CPE will be guided by the following key questions:

Effectiveness, results, and sustainability

- Is GEF support effective in producing results at the project level, at the aggregate level (portfolio and program) by focal area, and at the country level?
- Is GEF support effective in producing results that build on previous lessons learned and good practices from GEF projects and partners?
- Is GEF support effective in producing results that are making progress to impact after project completion?
- Is GEF support effective in replicating/up-scaling the successful results it has demonstrated in its projects?

- Is GEF support effective in linking environmental conservation measures with compatible sustainable livelihood and development activities for achieving global environmental benefits?
- Is GEF support effective at developing institutional and individual capacity within Eritrea?
- Has GEF support to Eritrea facilitated the channeling of additional resources for preventing land degradation efforts for achieving global environmental benefits?

Relevance

- Is GEF support relevant to the Eritrea sustainable development agenda and environmental priorities, to the country's development needs and challenges, and to national GEF focal area action plans?
- Is GEF support relevant to the objectives linked to the different global environmental benefits in the climate change, biodiversity, international waters, land degradation, and chemicals focal areas?
- Are GEF and its Agencies supporting environmental and sustainable development prioritization, country ownership, and the decision-making process in Eritrea? If so, how has this evolved over time?
- To what extent have GEF-supported activities also received support from the country and/or other donors?

Efficiency

- How much time, effort, and financial resources (including cofinancing) does it take to formulate and implement projects, by type of GEF support modality (including the SGP)?
- What are the roles, types of engagement, and coordination among different stakeholders in project implementation?
- What are the synergies among GEF Agencies, Eritrean national institutions, and other donors in support of GEF programming and implementation?
- What role does M&E play in project adaptive management and overall efficiency?

Each of these questions is complemented by indicators, potential sources of information, and methods in the evaluation matrix presented in annex D.

SCOPE AND LIMITATIONS

The Eritrea CPE will cover all types of GEF-supported activities in the country at all stages of the project cycle (pipeline, ongoing, and completed) and implemented by all active GEF Agencies in all active focal areas, including applicable GEF corporate activities such as the SGP; and a selection of regional and global programs that are of special relevance to these countries. 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.[8] The stage of the project will determine the expected CPE focus (table C.2).

The GEF does not establish country programs that specify expected achievements through programmatic objectives, indicators, and targets. However, since 2010, the GEF has started supporting countries in undertaking national portfolio formulation exercises on a voluntary basis. These exercises serve as a priority-setting tool for countries and as a guide for GEF Agencies as they assist recipient countries. These country programming efforts are rather recent, which limits their usefulness in CPEs which look back the start of GEF operations, i.e., sometimes 20 years ago. It is for this reason that CPEs generally entail some

[8] The review of selected regional projects will feed into the aggregate assessment of the national GEF portfolio described above.

TABLE C.2 **Focus of Evaluation by Project Status**

Status	Relevance	Efficiency	Effectiveness[a]	Results[a]
Completed	Full	Full	Full	Full
Ongoing	Full	Partially	Likelihood	Likelihood
Pipeline	Expected	Processes	n.a.	n.a.

NOTE: n.a. = not applicable.
a. On an exploratory basis.

degree of retrofitting of frameworks so as to judge the relevance of the aggregated results of a diverse portfolio of projects. Accordingly, the CPE evaluation framework described here will be adapted—along with other relevant national and GEF Agency strategies, country programs, and/or planning frameworks—as a basis for assessing the aggregate results, efficiency, and relevance of the GEF portfolio in Eritrea.

GEF support is provided through partnerships with many institutions operating at various levels, from local to national and international. It is therefore challenging to consider GEF support separately. The Eritrea CPE will not attempt to provide a direct attribution of development results to the GEF, but will address the contribution of GEF support to overall achievements—i.e., to establish a credible link between GEF-supported activities and their implications. The evaluation will address how GEF support has contributed to overall achievements in partnership with others, through analysis of 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. Special attention will be paid to the identification of factors affecting the level of outcome achievements and progress to impact, as well as to the risks that may prevent further progress to long-term impacts. Outcomes at the focal area level will be primarily assessed in relation to catalytic and replication effects, institutional sustainability and capacity building, and awareness.

Progress toward impact of a representative sample of sufficiently mature projects (i.e., completed for at least two years) will be looked at through field ROtI studies.[9] Expected impacts at the focal area level will be assessed in the context of GEF objectives and indicators of global environmental benefits.

The inclusion of regional and global projects increases the complexity of this type of evaluation, since these projects are developed and approved under a different context (i.e., regional or global policies and strategies) than are national projects.

Within the national portfolio, four FSPs have been completed, two FSPs are ongoing, and six projects are pending—four FSPs and two enabling activities. 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 national sustainable development and environmental policies, strategies, and priorities; the legal environment in which these policies are implemented and enforced; GEF Agency country strategies and programs; and GEF policies, principles, programs, and strategies.

[9] It is expected that at least two ROtIs would be conducted.

C.3 Methodology

The Eritrea CPE will be conducted by staff of the GEF Independent Evaluation Office and staff and consultants from ECOSOC. The team members have technical expertise on national environmental and sustainable development strategies, evaluation methodologies, and the GEF.[10]

ECOSOC staff qualifies under the GEF Independent Evaluation Office ethical guidelines, and they have signed a declaration to indicate no recent (last three to five years) relationship with GEF support in the country. Eritrea's operational focal point will act as a resource in facilitating the CPE process by identifying interviewees and source documents; and 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 the following:

- *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, and global and national environmental indicators
- *Agency level:* country assistance strategies and frameworks and their evaluations and reviews
- *Evaluative evidence* at the 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 countries), GEF Agencies, SGP, and the national United Nations convention 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 those outlined in the ROtI handbook (GEF IEO 2009)
- 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 (i.e., linkages with national and regional priorities, time and cost of preparing and implementing projects, etc.) and to measure GEF results (i.e., progress toward achieving global environmental benefits) and performance of projects (such as implementation and 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 and regional contexts. These tools include a project review protocol to conduct the desk and field reviews of GEF projects and

[10] The team from ECOSOC is headed by Tesfamariam Tekie (socioeconomist) and is composed of Weldeselassie Tewelde (Senior Researcher and Associate Professor in geography at the College of Social Science), Weldeselassie Okubazghi (Senior Researcher and Associate Professor in plant production ecology and resource conservation at the College of Agriculture), and Mulubrham Yohannes Mehreteab.

interview guides to conduct interviews with different stakeholders.

The Eritrea CPE will include visits to project sites. The criteria for selecting the sites will be finalized during 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 in conducting the field visits.

Quality assurance will be provided for the final report by a quality assurance panel composed of two independent national experts. The expertise provided will cover the relevant scientific and technical aspects of the peer review function related to the GEF focal areas as well as to evaluation.

PROCESS AND OUTPUTS

These country-specific terms of reference have been prepared based on two GEF Independent Evaluation Office visits to Eritrea in February and April 2013. The first mission was conducted with the purpose of assessing institutional and human capacity for joint management, quality assurance, and national conduct of the evaluation. The second mission focused on scoping the evaluation and identifying key issues to be included in the analysis. The scoping mission was also an opportunity to officially launch the evaluation and introduce the selected consultants to GEF national stakeholders. These terms of reference conclude the preparatory phase and set the scene for the evaluation phase. During this phase, the evaluation team will perform the following:

- Collect information and review literature to extract existing reliable evaluative evidence and prepare specific inputs to the CPE, including
  - the *GEF portfolio database*, which describes all GEF support activities in the country, basic information (GEF Agency, focal area, implementation status), project cycle information, GEF and cofinancing financial information, major objectives and expected (or actual) results, key partners per project, etc.;
  - the *country environmental legal framework*, which provides a historical perspective of the context in which GEF projects have been developed and implemented in Eritrea, and will be based on information on national environmental legislation, environmental policies of the government administration (plans, strategies, etc.), and the international agreements signed by Eritrea presented and analyzed over time so to be able to connect with particular GEF support;
  - the *global environmental benefits assessment* which provides an assessment of the countries' contribution to the GEF mandate and its focal areas based on appropriate indicators, such as those used in the STAR (biodiversity, climate change, and land degradation) and others used in project documents; and
  - *ROtI* field studies of at least two projects completed for at least two years, selected in consultation with the Independent Evaluation Office staff, which will contribute to strengthening the information gathering and analysis of results.
- Conduct additional *field visits* of other (three to five) ongoing and/or completed national projects, including those from the SGP portfolio,[11] selected in consultation with the Office staff; these will also contribute to strengthening the information gathering and analysis of results.
- Conduct the evaluation analysis and *triangulation* of collected information and evidence from various sources, tools, and methods. This will be

[11] Field visits to SGP projects will be undertaken when opportune in relation to other fieldwork.

done during a mission to Eritrea by the Office's task manager working with the ECOSOC team. The aim will be to consolidate evidence gathered thus far, identify missing information and analysis gaps, and arrive at preliminary findings. These will be summarized in a concise *aide-mémoire*, which will be distributed to stakeholders one week prior to the final consultation workshop together with an invitation to the workshop. During this mission, additional analysis, meetings, document reviews, and/or fieldwork will be undertaken as needed.

- Conduct a *stakeholder consultation workshop* for government and national and regional stakeholders, including project staff, donors, and GEF Agencies, to present and gather stakeholder feedback on the GEF Eritrea CPE key preliminary findings contained in the aide-mémoire. The workshop will also be an opportunity to verify errors of fact or analysis in case these are supported by adequate additional evidence brought to the attention of the evaluation team. The workshop will also aim at identifying potential areas of recommendation and verify their concreteness and feasibility.
- Prepare a *draft Eritrea portfolio evaluation report*, which incorporates comments received at the final consultation workshop. The draft report will be sent to stakeholders for fact-checking as well as for errors of analysis.
- Consider the eventual incorporation of comments received to the draft report and prepare the *final Eritrea portfolio evaluation report*. The GEF Independent Evaluation Office will bear full responsibility for the content of the report.

EVALUATION KEY MILESTONES

The evaluation will be conducted between February and September 2013. The key milestones of the evaluation are presented in table C.3.

TABLE C.3 **Evaluation Key Milestones**

Preparatory work, preliminary data gathering	January 2013
Pre-evaluation mission	February 2013
Evaluation workplan and evaluation matrix	March 2013
Quality control/peer review, finalization, and disclosure of Eritrea-specific CPE terms of reference	June 2013
Launch evaluation phase, literature review, data gathering	March 2013
Country environmental legal framework	July 2013
Global environmental benefits assessment	July 2013
Data collection/interviews, GEF portfolio database, project review protocols	March–August 2013
Finalization of GEF country portfolio database	August 2013
Two ROtI field studies	August 2013
Consolidation and triangulation of evaluative evidence, additional analysis/gap filling	July 22, 2013
Preparation of a aide-mémoire (report of preliminary findings)	August 31, 2013
Presentation of preliminary findings at a consultation workshop	September 16, 2013
Draft CPE report for circulation	October 1, 2013
Delivery of final CPE report	October 15, 2013

Annex D: Evaluation Matrix

Key question	Indicators/data	Source of information	Methodology
Effectiveness, results, and sustainability			
Is GEF support effective in producing results (outcomes and impacts) at the project level, aggregate (portfolio and program) level, and country level? Are these results (project level) sustainable?	• Overall project outcomes and impacts of GEF support	• Project staff and beneficiaries, national and local government representatives, NGOs • ROtI studies	• Focus groups and individual interviews • ROtI methodology
	• Existing ratings for project outcomes (self-ratings and independent ratings)	• Project-related reviews (implementation reports, terminal evaluations, terminal evaluation reviews, etc.)	• Desk review, project review protocols
	• Changes in global benefit indexes and other global environmental indicators	• Evaluative evidence from projects and donors, global environmental benefits assessment	• Literature review, meta-analysis of evaluation reports, national and global state of environment reports
	• Sustainability ratings for projects that are still under implementation on likelihood that objectives will be achieved	• Project staff and beneficiaries, national and local government representatives, NGOs	• Focus groups and individual interviews
		• ROtI studies	• ROtI methodology
		• Project-related reviews (implementation reports, terminal evaluations, terminal evaluation reviews, etc.)	• GEF portfolio aggregate analysis
	• Catalytic and replication effects on national and regional programs	• Data from overall projects and other donors, including evaluation studies by other donors	• Desk review
		• ROtI studies	• ROtI methodology
		• Project staffs and beneficiaries, national and local government representatives	• Focus groups and individual interviews
	• Use of tracking tools and M&E data	• Data from overall projects and other donors, including evaluation studies by other donors	• Desk review
		• ROtI studies	• ROtI methodology
		• Project staffs and beneficiaries, national and local government representatives, NGOs	• Focus groups and individual interviews

Key question	Indicators/data	Source of information	Methodology
Is GEF support effective in producing results related to the dissemination of lessons learned in GEF projects and with partners? If so, how are such lessons shared in-country?	• Existing ratings for project outcomes (self-ratings and independent ratings)	• Project-related reviews (implementation reports, terminal evaluations, terminal evaluation reviews, etc.)	• Desk review, project review protocols
	• Dissemination of positive impacts of GEF projects and best practices into national development plans and other channels to mainstream lessons from GEF projects	• Project staff and beneficiaries, national and local government representatives, civil society staff (NGOs and academia)	• Focus groups and individual interviews
	• Lessons learned shared nationally and regionally, and models/interventions in use	• Project-related reviews (implementation reports, terminal evaluations, terminal evaluation reviews, etc.), ROtI studies, project staff and beneficiaries, national and local government representatives, NGOs and academia	• Desk review, ROtI methodology, GEF portfolio and pipeline analysis
Has GEF support led to progress toward impact over an extended period of time after completion?	• Continued existence of intended change/activity beyond GEF support • Availability of financial and technical resources to carry out interventions beyond GEF funding • Ownership of projects by local institutions or by beneficiary groups that continue to engage with the interventions	• Project-related reviews (implementation reports, terminal evaluations, terminal evaluation reviews, etc.); project staff and beneficiaries, national and local government representatives; ROtI studies	• Desk review, focus groups and individual interviews, project review protocols, ROtI methodology, GEF portfolio analysis
Is GEF support effective in creating individual capacity at national, regional, and local levels?	• Evidence of individual capacity improvement by credentials and performance	• Project-related reviews; project staff and beneficiaries, national and local government representatives; NGOs and academia, ROtI studies, evaluation studies by other donors	• Project review protocols, focus groups and individual interviews, ROtI methodology
Is GEF support effective in strengthening institutional capacity at national, regional, and local levels?[a]	• Evidence of institutional capacity strengthening by institutional creation, performance measures, staffing, or budget	• Project-related reviews; project staff and beneficiaries, national and local government representatives; ROtI studies, NGO representatives	• Project review protocols, focus groups and individual interviews, ROtI methodology

Key question	Indicators/data	Source of information	Methodology
Is GEF support effective in linking environmental conservation measures with compatible sustainable livelihood and development activities for achieving global environmental benefits?	• Incorporation of livelihood needs into project design	• Project-related reviews (implementation reports, terminal evaluations, terminal evaluation reviews, etc.); project staff and beneficiaries, national and local government representatives, NGOs, academia	• Desk project review protocols, stakeholder consultations (focus groups and individual interviews)
	• Evidence of environmental stress reduction; status improvement • Evidence of livelihood improvements among communities dependent on natural resources	• Project-related reviews, ROtI studies, project staff and beneficiaries, national and local government representatives and civil society representatives (NGO and academia), evaluation studies by other donors	• Project review protocols, ROtI methodology, GEF portfolio analysis, stakeholder consultation
	• Percentage of total support allocated to livelihood support	• Project-related reviews; project staff and beneficiaries, national and local government representatives, NGOs and academia	• Project review protocols, focus groups and individual interviews
Is GEF support effective in replicating/up-scaling the successful results it has demonstrated in its projects?	• Institutions continue projects or use lessons to provide services and interventions • Evidence of an increase in use of similar interventions • Catalytic up-scaling and replication effects	• Project staff and beneficiaries, national and local government representatives • Project-related reviews (implementation reports, terminal evaluations, terminal evaluation reviews, etc.); data from overall projects and other donors; ROtI studies	• Desk review, project review protocols, meta-analysis, ROtI methodology, focus groups and individual interviews
Has GEF support facilitated the channeling of additional resources for preventing land degradation as a means to achieve global environmental benefits?	• Evidence of land degradation prevention projects/activities as supported by the government/other donors • National/regional policies (agriculture, forestry, environment, etc.) to slow rates of land degradation • Active monitoring of land degradation by government/nongovernment entities	• Project staff and beneficiaries, national and local government representatives • Project-related reviews (implementation reports, terminal evaluations, terminal evaluation reviews, etc.); data from overall projects and other donors, including evaluation studies; ROtI studies	• Desk review, project review protocols, individual interviews, RotI, meta-evaluation

Key question	Indicators/data	Source of information	Methodology
Relevance			
Is GEF support relevant to the national sustainability development agenda and environmental priorities, national development needs and challenges, and national GEF focal area action plans?	• GEF support for environmental protection is within Eritrea's development vision and national strategies, including strategies for progress toward the Millennium Development Goals	• Eritrean-relevant sustainable development and environment policies, strategies, and action plans • Project-related documentation (project document and logframe, implementation reports, terminal evaluations, terminal evaluation reviews, etc.), PMIS, Agency project databases, evaluation studies by other donors	• Desk review; GEF portfolio analysis by focal area, Agency, modality, and project status (national); selected key person interviews • Desk review; GEF portfolio analysis by focal area, Agency, modality and project status (national) • Stakeholder consultation (focus groups, individual interviews) • Literature review, timelines, etc. • Meta-evaluation
	• Level of GEF support compared to other development partners in activities prioritized in national sustainable development and environmental policies and legislation • GEF support has country ownership and is Eritrea based (i.e., project origin, design, and implementation)	• GEE focal point and its agencies, government authorities, and others • Government officials, Agency staff, donors, and civil society representatives • Country legal environmental framework	
	• GEF supports development needs (i.e., income generating, capacity building) and reduces challenges • The GEF's various types of modalities, projects and instruments are in coherence with country's needs and challenges	• Relevant country-level sustainable development and environment policies, strategies, and action plans • Project-related documentation (project document and logframe, implementation reports, terminal evaluations, terminal evaluation reviews, etc.), PMIS, Agency project databases	• Desk review; GEF portfolio analysis by focal area, Agency, modality, and project status (national)
		• Government officials, Agency staff, donors, and civil society representatives • Country legal environmental framework	• Stakeholder consultation (focus groups, individual interviews) • Literature review, timelines, etc.
	• GEF support linked to national environmental action plan, national communications to UNFCCC, NIP, NCSA, NAPA, etc.	• GEF-supported enabling activities and products (NCSA, national environmental action plan, NAPA, national communications to UN conventions, etc.) • SGP country strategy	• Desk review
		• Government officials, Agency staff, donors and civil society representatives	• Stakeholder consultation (focus groups, individual interviews)

Key question	Indicators/data	Source of information	Methodology
Are the GEF and its Agencies supporting environmental and sustainable development prioritization, country ownership, and the decision-making process in Eritrea? And if so, how has this evolved over time?	• Level of GEF funding compared to other development assistance in the environmental sector and development activities • Cofinancing rate (from government, private sector, and/or civil society)	• Available databases (global such as World Bank, Asian Development Bank, etc.; and national, such as ministry of finance, planning and economy, ministry responsible for environment, etc.)	• Desk reviews and meta-analysis for evaluating financing information to assess contributions of government, donors, and private and civil society organizations
	• GEF support has Eritrean ownership and is country based (i.e., project design and implementation by in-country national institutions)	• Project design and implementation documents, evaluation studies from other donors, government officials, Agency staff, donors, and civil society representatives	• Desk review, stakeholder consultation (focus group discussions, individual interviews)
	• Relevant national policies and strategic documents include set of priorities that reflect results and outcomes of relevant GEF support	• STAR/RAF documents, project-related documentation • Country environmental legal framework	• Literature review, timelines, historical causality, etc.
Is GEF support in Eritrea relevant to the objectives linked to the different global environmental benefits in the climate change, biodiversity, international waters, land degradation, and chemicals focal areas?	• GEF project outcomes and impacts are in line with the Global Benefit Index (for biodiversity and climate change) and with other global indicators for GHGs, POPs, land degradation, and international waters	• National convention action plans and references/links in the RAF, STAR documents	• Desk review, project field visits, project review protocols
		• Global environmental benefits assessment	• Literature review
	• GEF support linked to meeting national commitments to conventions	• Project-related documentation (project document and logframe, implementation reports, terminal evaluations, terminal evaluation reviews, etc.), PMIS, Agency project databases	• GEF portfolio analysis by focal area, Agency, modality, and project status (national)
		• Government officials, Agency staff, donors, and civil society representatives (including NGOs and academia)	• Stakeholder consultation (focus groups, individual interviews)
		• Global environmental benefits assessment	• Literature review

Key question	Indicators/data	Source of information	Methodology
To what extent have GEF-supported activities also received support from the country and/or from other donors?	• GEF activities, country commitment, and project counterparts support GEF mandate and focal area programs and strategies (catalytic and replication, etc.) • Cofinancing amounts • National and regional budgets for environmental protection activities	• GEF Instrument, Council decisions, focal area programs and strategies • Project-related documentation (project document and logframe, implementation reports, terminal evaluations, terminal evaluation reviews, etc.), PMIS, Agency project databases, evaluation studies from other donors	• Desk review; GEF portfolio analysis by focal area, Agency, modality, and project status (national) • Meta-evaluation
	• Donor support to non-GEF-supported environmental activities	• GEF Secretariat staff and technical staff from GEF Agencies	• Individual interviews
		• Global environmental benefits assessment	• Literature review
		• Country environmental legal framework	• Literature review, timelines, historical causality, etc.
	• Level of funding from Eritrean government for GEF projects and its trajectory over time	• National allocations for related projects (ministry of finance and economy, ministry responsible for environment)	• Government documents and interviews with officials
Are there trade-offs between the relevance of GEF support to Eritrea's national priorities versus relevance to global environmental benefits?	• Alignment of global environmental benefits to national sustainable development priorities (i.e., encouraging economic development/poverty reduction in a sustainable manner)	• Comparison of country context/national development strategies and global environmental benefits (through country context and global environmental benefit assessment)	• Desk review
		• Government officials, Agency staff, donors, and civil society representatives	• Stakeholder consultation (focus groups, individual interviews, national workshop)
	• Contribution of GEF projects to support or integrate environmental objectives into larger development agendas	• Project-related documentation, STAR/RAF strategy documents	• GEF portfolio analysis
		• Government officials, Agency, donors, and civil society representatives	• Stakeholder consultation (focus groups, individual interviews, national workshop)
		• Country environmental legal framework	• Literature review, timelines, historical causality, etc.
	• Alignment of international projects to meeting local/regional sustainable development priorities and needs	• Government officials, Agency staff, donors, and civil society representatives	• Stakeholder consultation (focus groups, individual interviews, national workshop)

Key question	Indicators/data	Source of information	Methodology
Efficiency			
How much time, effort, and financial resources does it take to formulate and implement projects, by type of GEF support modality in Eritrea?	• Process indicators: processing timing (according to project cycle steps), preparation and implementation cost by type of modality, etc. • Financial spending timeline intact with plans • Plans adapted as necessary • Financial allocations used as scheduled	• Project-related documentation (project documents and log-frames, implementation reports, terminal evaluations, terminal evaluation reviews, etc.), PMIS and Agency project databases	• Desk review, GEF portfolio analysis, timelines
	• Project drop-outs from PDF and cancellations	• GEF Secretariat and Agency staff, government officials, GEF focal point	• Individual interviews, field visits, project review protocols
	• GEF versus cofinancing	• National and local government officials, donors, NGOs, beneficiaries	
What role does M&E play in project adaptive management and overall efficiency?	• Use of M&E inputs to guide project toward achieving results • Consideration of lessons learned • Tracking tools used, correctly filled in	• Project-related documentation, especially progress reports, terminal evaluations, and terminal evaluation reviews	• Desk reviews, GEF portfolio analysis, interviews with GEF Agencies, focal point
	• Project learning provides information for decisions for future projects, programs, policies, and portfolios	• Project termination reports, policy makers/government officials, GEF Secretariat and Agency staff, project reports	• Desk review, interviews with GEF Agencies, focal point
What are the roles, types of engagement, and coordination among different stakeholders in project implementation?	• Types of actors involved and levels of participation • Working relationships between partners/ stakeholders	• Project-related documentation (implementation reports, terminal evaluations, terminal evaluation reviews, etc.)	• Meta-evaluation (review of other donor reports), desk review and portfolio analysis, stakeholder analysis
	• Roles and responsibilities of GEF actors defined • Capacity gaps defined • Coordination and exchange of information/knowledge/lessons between GEF projects	• Project-related documentation (implementation/progress reports), project staff, government officials, beneficiaries	
	• Existence of a national coordination mechanism for GEF support	• GEF Secretariat staff and technical staff from GEF Agencies, and GEF operational focal point staff	• Interviews, field visits, institutional analysis

Key question	Indicators/data	Source of information	Methodology
Are there synergies for GEF project programming and implementation among GEF Agencies, national institutions, GEF projects, and other donor-supported projects and activities?	• Acknowledgment among GEF Agencies and institutions of each other's projects	• Project-related reviews (implementation reports, terminal evaluations, terminal evaluation reviews, etc.), evaluations from other donors	• Desk review, interviews, field visits
	• Effective communication and technical support between GEF project Agencies and organizations and between national institutions	• GEF Agency staff, national executing agency (NGOs, other) project staff, national and local government officials, beneficiaries	
	• Budget allocations and alignment of GEF projects to carry out these activities	• Government documents and data and information from officials	• Document review, Interviews

a. For the purposes of analysis, the review of the key question concerning individual capacity and institutional strengthening has been split.

Annex E: Interviewees and Focus Group Members

E.1 Interviewees

Tewelde Kelati, Minister, MOMR

Moges Woldeyohannes, DOE, MOLWE; and GEF Focal Office

Solomon Haile, Director General, Planning and Research, Ministry of Agriculture

Tesfai Zekarias, Director General, Renewable Energy, Ministry of Energy and Mines

Andom Gebretensae, Director General, MOMR

Weldemicael Berhe, Head, Generation and Transmission, Eritrean Electric Corporation

Aman Saleh, GEF Coordinator, MOLWE

Tewolde Gyessus, Environmental Assessment and Information Dissemination Director, DOE, MOLWE; and Stockholm Convention Focal Point

Abraham Daniel, Head, Ministry of Agriculture, Maekel; SLM National Coordinator

Saeid Salih, Director, Office of the Minister, MOMR

Sami Mahmmoud, former Director of Research, MOMR; and CMIB Coordinator

Basilios, Head of Administration and Finance, Branch Office, Keren, Ministry of Agriculture, Anseba

Yoseph Admekom, Specialist Program Officer/ ARR, Sustainable Environment Unit, UNDP; GEF Focal Person

Tedros Demoz, Coordinator, UNDP SGP

Freweini Negash, Assistant Coordinator, UNDP SGP

Mibrak, National Union of Eritrean Women, Adi Tekelezan

Tsion Ogbaselassie, Head of Social Services, National Union of Eritrean Women, Anseba Chapter

Tirhas Nrayo, SGP Project Coordinator; National Union of Eritrean Women, Anseba Chapter

Luigi, National Union of Eritrean Youth and Students, Anseba; National Union of Eritrean Women, Anseba Chapter

Hagos Kiflom, National Union of Eritrean Youth and Students, Adi Tekelezan; National Union of Eritrean Women, Anseba Chapter

Micael Berhane, National Coordinator, Catchments and Landscape Management Program, Ministry of Agriculture

E.2 Focus Group Members

Saba Taffere, Home Economics Agent, Ministry of Agriculture, Wara

Hiruy Idris, National Union of Eritrean Women, Wara

Seida Omer, Beneficiary, Wara

Elsa Afewroki, National Union of Eritrean Women, Adi Tekelezan

Zaid Salih, Beneficiary, Wara

Saba Taffere, Home Economics Agent, Ministry of Agriculture, Deki Gebru

Nigisti Haile, National Union of Eritrean Women, Deki Gebru

Lekan Yohannes, Beneficiary, Deki Gebru

Elsa Weldehaimanot, Beneficiary, Deki Gebru

Annex F: Sites Visited

F.1 Biodiversity

Massawa, Hirigo, and Disee Islands, Northern Red Sea: CMIB project

F.2 Climate Change

Aseb: wind turbine, TIO, IDI, Berasole in Zoba Southern Red Sea

F.3 Land Degradation

Serejeka Village, Maekel: SLM Pilot Project

Wara, Deki Gebru, Adi Tekelezan, and Dekizeru village communities, Anseba: SGP project

Annex G: Final Workshop Participants

Osman Abdulahi, Land Department, MOLWE

Yoseph Admekom, UNDP

Teklit Andom, MOLWE, Southern Red Sea

Filmon Yosief Araya, MOLWE

Fanus Aregay, Administration, Anseba

Mulugeta Asmelash, Land Department, MOLWE

Fessahaye Bairu, Cadastral, MOLWE

Estifanos Bein, Forestry and Wildlife, Ministry of Agriculture

Haileab Berhane, MOLWE, Northern Red Sea

Micael Berhane, Ministry of Agriculture

Abraham Daniel, Ministry of Agriculture, Maekel

Tedros Demoz, UNDP SGP

Asegedesh Estifanos, National Confederation of Eritrean Workers

Abraha Gebreamlak, MOLWE, Gash Barka

Andom Gebretensae, MOMR

Tewelde Gebreyesus, DOE, MOLWE

Muluberhan Gebreyohannes, MOLWE, Maekel

Bisrat Gebru, National Board for Higher Education

Tesfai Ghebrehiwet, Ministry of Energy and Mines

Eyob Ghebrekal, Ministry of Agriculture

Fikreyesus Ghilai, Forestry and Wildlife, Ministry of Agriculture

Mahta Goitom, MOMR

Teodros Kibrom, MOLWE

Ephrem Kifelmariam, DOE, MOLWE

Roza Kiflemariam, National Union of Eritrean Women

Minas Leake, National Union of Eritrean Youth and Students

Sammy Mahmud, MOMR

Tadesse Mehari, National Board for Higher Education

Tekle Mengistu, MOMR, Northern Red Sea

Freweini Negash, UNDP SGP

Amanuel Negassi, Ministry of Agriculture

Weldeselassie Okubazghi, Hamelmalo Agricultural College

Astier Redaezghi, DOE, MOLWE

Aman Saleh, DOE, MOLWE

Yohannes Tekelmariam, Research, MOMR, Northern Red Sea

Yonas Tekleab, Forestry and Wildlife, Ministry of Agriculture

Afeworki Tesfai, Ministry of National Development

Tekie Tesfamicael, DOE, MOLWE

Weldeselassie Tewelde, College of Arts and Social Sciences

Okubamicael Wahad, Ministry of Tourism

Zere Woldetensae, MOLWE, Anseba

Mogos Woldeyohannes, DOE, MOLWE

Mihreteab Micael Yemane, MOLWE

Daniel Yohannes, GEO Science

Tesfai Zekarias, Ministry of Energy and Mines

Annex H: GEF Portfolio in Eritrea

GEF ID	Project	GEF Agency	Focal area	Modality	Status	Phase	GEF grant ($)	Cofinancing ($)
			National projects					
137	National Biodiversity Strategy, Action Plan and First National Report	WB	BD	EA	C	GEF-1	275,000	0
278	Enabling Eritrea to Prepare Its First National Communication in Response to Its Commitments to UNFCCC	UNDP	CC	EA	C	GEF-1	303,850	0
411	Conservation Management of Eritrea's Coastal, Marine and Island Biodiversity	UNDP	BD	FSP	C	GEF-1	4,986,000	840,000
1136	Wind Energy Applications	UNDP	CC	FSP	C	GEF-3	1,950,561	2,935,536
1506	Assessment of Capacity Building Needs for Biodiversity, Participation in Clearing House Mechanism and Preparation of Second National Report (add-on)	WB	BD	EA	C	GEF-2	170,000	15,000
1584	National Capacity Self-Assessment (NCSA) for Global Environmental Management	UNEP	MF	EA	C	GEF-3	198,000	20,000
1959	Development of a National Adaptation Program of Action (NAPA)	UNDP	CC	EA	C	GEF-3	200,000[a]	17,600
3139	Enabling Activities to Facilitate Early Action on the Implementation of the Stockholm Convention on POPs	UNIDO	POPs	EA	C	GEF-4	346,500	35,000
3362	SIP: Catchments and Landscape Management	IFAD	LD	FSP	O	GEF-4	4,350,000	21,678,000
3364	SIP: Sustainable Land Management Pilot Project	UNDP	LD	FSP	O	GEF-4	1,820,000	2,250,000
3987	Eritrea: Prevention and Disposal of POPs and Obsolete Pesticides	FAO	POPs	FSP	O	GEF-4	2,150,000	3,209,153
4559	Operationalization of Protected Areas Management Systems of Eritrea	UNDP	BD	FSP	A	GEF-5	5,878,000	10,555,400

GEF ID	Project	GEF Agency	Focal area	Modality	Status	Phase	GEF grant ($)	Cofinancing ($)
Regional projects								
1028	Mainstreaming Conservation of Migratory Soaring Birds into Key Productive Sectors along the Rift Valley/Red Sea Flyway (Tranches 1 and 2)	UNDP	BD	FSP	O	GEF-3	6,243,243	4,887,232
1094	Nile Transboundary Environmental Action Project, Tranche 1	WB-UNDP	IW	FSP	C	GEF-2	16,800,000	93,700,000
1331	Demonstrating Cost-Effectiveness and Sustainability of Environmentally Sound and Locally Appropriate Alternatives to DDT for Malaria Control in Africa	UNEP	POPs	FSP	O	GEF-3	3,460,296	2,966,950
1513	Building Sustainable Commercial Dissemination Networks for Household PV Systems in Eastern Africa	UNEP	CC	MSP	C	GEF-3	693,600	539,630
2469	Supporting Capacity Building for the Elaboration of National Reports and Country Profiles by African Parties to the UNCCD	WB	LD	MSP	C	GEF-3	900,000	900,000
2757	Strategic Investment Program for SLM in Sub-Saharan Africa	WB, UNDP, UNEP, AfDB, IFAD, FAO	LD	FSP	A	GEF-4	122,998,091	978,426,000
4523	Support to Preparation of the Second National Biosafety Reports to the Cartagena Protocol on Biosafety—Africa	UNEP	BD	MSP	A	GEF-5	993,950	840,000
Global projects								
3707	Piloting Integrated Processes and Approaches to Facilitate National Reporting to Rio Conventions	UNEP	MF	MSP	A	GEF-4	840,000	800,880
5119	Umbrella Programme for National Communication to the UNFCCC	UNEP	CC	FSP	A	GEF-5	6,180,000	1,098,000
5136	Support to 20 GEF Eligible Parties for Alignment of National Action Programs and Reporting Process under UNCCD (add-on Umbrella 2)	UNEP	LD	MSP	A	GEF-5	1,000,000	1,000,000

NOTE: AfDB = African Development Bank, WB = World Bank; BD = biodiversity, CC = climate change, IW = international waters, LD = land degradation, MF = multifocal; EA = enabling activity; A = approved/endorsed, C = completed/closed, O = ongoing.
a. Least Developed Countries Fund.

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