Cover Note

Project Name: **Integrated participatory ecosystem management in and around protected areas; Phase I**

Date: **2nd August 2002**

	Work Program Inclusion	Reference/Note
1. Country Ownership		
• Country Eligibility		Section 1a
• Country Drivenness	Clear description of project's fit within: • National reports/communications to Conventions • National or sector development plans	Section 1b
• Endorsement	• Endorsement by national operational focal point.	Section 1c and Annex 15
2. Program & Policy Conformity		
• Program Designation & Conformity	• Describe how project objectives are consistent with Operational Program objectives or operational criteria.	Section 2a
• Project Design	Describe: • sector issues, root causes, threats, barriers, etc., affecting global environment. • Project logical framework, including a consistent strategy, goals, objectives, outputs, inputs/activities, measurable performance indicators, risks and assumptions. • Detailed description of goals, objectives, outputs, and related assumptions, risks and performance indicators. • Brief description of proposed project activities, including an explanation how the activities would result in project outputs • Global environmental benefits of the project. • Incremental Cost Estimation based on the project logical framework. ➢ Describe project outputs (and related activities and costs) that result in *global* environmental benefits ➢ Describe project outputs (and related activities and costs) that result in joint *global and national* environmental benefits. ➢ Describe project outputs (and related	Section 2b Paragraphs 7 - 56 Paragraphs 57 – 77 Annex 2 Annex 12 Annex 13 Annex 10 Annex 12 Pargraph 63 and 78 Paragraph 79 and Annex 1

	Work Program Inclusion	Reference/Note
	activities and costs) that result in *national* environmental benefits. ➢ Describe the process used to jointly estimate incremental cost with in-country project partner. ➢ Present the incremental cost estimate. If presented as a range, then a brief explanation of challenges and constraints and how these would be addressed by the time of CEO endorsement.	
• Sustainability (including financial sustainability)	• Describe proposed approach to address factors influencing sustainability, within and/or outside the project to deal with these factors.	Section 2c
• Replicability	• Describe the proposed approach to replication (for e.g., dissemination of lessons, training workshops, information exchange, national and regional forum, etc) (could be within project description).	Section 2d
• Stakeholder Involvement	• Describe how stakeholders have been involved in project development. • Describe approach for stakeholder involvement in further project development/ implementation.	Section 2e and Annex 9

• Monitoring & Evaluation	• Describe how the project design has incorporated lessons from similar projects.
	• Describe approach for project M&E system, based on the project logical framework, including the following elements:
	  • Specification of indicators for objectives and outputs, including intermediate benchmarks, and means of measurement.
	  • Outline organizational arrangement for implementing M&E.
	  • Indicative total cost of M&E.
		Section 2f

3. Financing		
• Financing Plan	• Estimate total project cost. • Estimate contribution by financing partners. • Propose type of financing instrument.	Section 3a
• Implementing Agency Fees	• Propose IA fee.	.NA
• Cost-effectiveness	• Estimate cost effectiveness, if feasible. • Describe alternate project approaches considered and discarded.	Section 3b

	Work Program Inclusion	Reference/Note
4. Institutional Coordination & Support		
IA Coordination and Support • Core commitments & Linkages	Describe how the proposed project is located within the IA's: • Country/regional/global/sector programs. • GEF activities with potential influence on the proposed project (design and implementation).	Section 4a
• Consultation, Coordination and Collaboration between IAs, and IAs and EAs, if appropriate.	• Describe how the proposed project relates to activities of other IAs (and 4 RDBs) in the country/region. • Describe planned/agreed coordination, collaboration between IAs in project implementation.	Section 4b
5. Response to Reviews		
Council	Respond to Council Comments at pipeline entry.	N/A
Convention Secretariat	Respond to comments from Convention Secretariats.	N/A
GEF Secretariat	Respond to comments from GEFSEC on draft project brief.	N/A
Other IAs and 4 RDBs	Respond to comments from other IAs, 4RDBss on draft project brief.	N/A
STAP	Respond to comments by STAP at work program inclusion	N/A
Review by expert from STAP Roster	Respond to review by expert from STAP roster.	Annex 3a and 3b

PROJECT BRIEF

IDENTIFIERS

PROJECT NUMBER:	1382
PROJECT TITLE:	**Cape Verde: Integrated Participatory Ecosystem Management in and Around Protected Areas; Phase I**
REQUESTING COUNTRY:	Cape Verde Islands
DURATION:	4 years
COORDINATION AGENCY:	General Direction for International Co-operation
EXECUTING AGENCY:	General Direction of Environment, Ministry of Agriculture and Fishery
IMPLEMENTING AGENCY:	United Nations Development Programme (UNDP)
PROJECT SITES:	Santo Antão, São Vicente, São Nicolau, Fogo and Santiago
GEF FOCAL AREAS:	Primary Biodiversity, Secondary Land Degradation
GEF OP:	OP1: Arid & Semi-Arid Zone Ecosystems
ELIGIBILITY:	Cape Verde Ratified the CBD on March, 1995

PROJECT SUMMARY:

The proposed programme will conserve globally significant biodiversity through the creation of a system of protected areas encompassing a representative sample of six critical ecosystems that are unique to Cape Verde. The programme will also halt and reverse existing degradation of land and water resources within the protected areas and adjacent landscapes. Full participation will be guaranteed for local communities, NGOs, and other stakeholders in the design and implementation of conservation plans, resource management activities, and the creation of income-generating alternative livelihood options. The programme is explicitly designed to undertake significant capacity building strategies to empower public and private institutions in Cape Verde in their efforts to conserve island ecosystems and undertake long-term adaptive management against potential future degradation of Cape Verde's environment. Implementation of the programme will play a crucial role in achieving sustainable development and poverty alleviation. Strategic measures of the programme will include: 1) a strengthened policy and legal framework for conservation of biodiversity and integrated and participatory management of protected areas; 2) an institutional framework created and operational for the participatory management of protected areas; 3) creation of six natural parks with significant community participation; 4) improved capacity of local stakeholders and state agencies in sustainable resources management; 5) creation and strengthening of income generating activities for local communities; and 6) awareness building and education on environmental conservation at the local and national level. The GEF Alternative is conceived as a medium-term programme, that will be implemented in two parts : The first project (Phase I) covering 2003-2006 will focus on capacity building, strengthening the enabling environment, obtaining concrete impacts on the ground in terms of community based natural resource management, and establishing two priority National Parks. The second project (Phase II) covering 2007-2009 will build on the results in order to secure global benefits, by establishing the final four National Parks, ensuring financial sustainability of actions (including a possible Trust Fund), and gradual government

assumption of administration and financing of programme results.

Cost & Financing (US $) covering the first project – Phase I (2003-2006)

GEF

Project :	3,585,600
PDF B:	346,500
Sub-total GEF:	*3,932,100*

Direct Co-financing:

GoCV (in-kind):	1,379,800
GoCV/DGIS (cash):	2,152,100
UNDP (cash):	465,000
Peace Corps:	220,000
Sub-total direct co-financing	*4,216,900*

Parallel (negotiated) Co-financing

USAID:	170,000
France:	550,000
Italy:	150,000
BMZ and GTZ (Fogo):	550,000
EU-FED:	70,000
Sub-total parallel financing:	*1,490,000*

Total Co-financing:	**5,706,900**
Total Project (first phase):	**9,639,000**

Associated (Baseline) Financing (US$):

UNDP GEF	$250,000
GTZ (Fogo):	$350,000
BMZ /DGASP:	$1,500,000
Italy (COSPE):	$525,000
USAID/ACDI/VOCA:	$830,000
FAO:	$450,000
Austrian Dev. Corp:	$660,000
Luxembourg:	$1,300,000
China + INGHR:	$320,000
EU – FED:	$625,000
EU – Canary Islands:	$875,000
Ministry of Agric/Envt:	$1,000,000
Roselt:	$350,000
Ministry of Energy:	$26,000,000
Total Baseline	**35,035,000**

Estimated cost of 2nd Project – Phase II (to be confirmed in 2006):

GEF :	2,841,300
GoCV (inkind):	1,700,000
GoCV/DGIS (cash):	1,505,500
UNDP:	305,000
Peace Corps:	220,000
Other:	890,100

IMPLEMENTING AGENCY CONTACTS

i) Regional coordinator: Dr. Maryam Niamir-Fuller, UNDP-GEF Regional Coordinator for Africa, UNDP, P.O.Box 31966, Lusaka, Zambia, Tel.: 260.1.255813, Fax: 260.1.255814, email: maryam.niamir-fuller@undp.org

ii) National coordinator: Jose Levy, UNDP, P.O Box. Nº 62 Praia, Cape Verde, Tel.: 011-238-62-14-01, e-mail: jose.levy@undp.org

List of Acronyms

AAN	Association of Friends of Nature
ACDI-VOCA	Agriculture Cooperation Development International
ADAD	Association for the Environment Protection and Development
ADC	Austrian Development Corporation
CBD	Convention on Biological Diversity
COSPE	Cooperation for the Development of Emerging Countries (Italian Aid)
DGA	General Direction of Environment
DGASP	National Direction for Agriculture, Silviculture and Animal Husbandry
DGIS	General Direction of Cooperation for Development (Dutch Aid)
EIA	Environmental Impact Assessment
EU	European Union
EU-FED	European Union – European Fund for Development
FAO	Food and Agriculture Organization
FNA	National Fund for Environment
GEF	Global Environment Facility
GNP	Gross National Product
GTZ	Deutsche Gesellschaft fur Technische Zusammenarbeit (German Aid)
INDP	National Institute for Development of Fishery
INGRH	National Institute for Water Resources Management
INERF	National Institute of Engineering and Forestry Resources
INIDA	National Institute for Agriculture Research and Development
MAP	Ministry of Agriculture and Fishery
NBSAP	National Biodiversity Support Action Plan
NEAP	National Environmental Action Plan
NGO	Non-governmental Organization
PACU	Protected Areas Coordination Unit
PDF-B	Project Development Facility
UNDP	United Nations Development Program
USAID	United States Agency for International Development
PROMEX	External Investment Promotion Agency
WWF	World Wildlife Fund

GEF PROJECT DOCUMENT

1) COUNTRY OWNERSHIP

a) Country eligibility

1. Cape Verde has ratified all three Conventions related to the Environment (Biodiversity, Climate Change and Desertification), and elaborated its Strategic Plans relating to these conventions. Cape Verde signed the Convention on Biodiversity in June 1992 and ratified it in March 1995. Cape Verde Islands is eligible for technical assistance from UNDP.

b) Country Drivenness

2. Cape Verde's National Action Plan on the Environment considers the conservation of biodiversity as a priority activity in natural resources management and sustainable development objectives. The Plan explicitly supports the *in situ* conservation of biodiversity as a central priority, as well as forestry conservation, ecotourism development, and the production of medicines based on native plant and animal species. The creation of protected areas for biodiversity conservation, and for cultural, tourism, and research objectives, is also called for in the Plan. The Plan also identifies education of the general population in Cape Verde on environmental problems and opportunities as a national priority. The proposed programme, with its focus on terrestrial biodiversity, will also complement the existing Futura 2000 project for conservation and development of protected areas for marine and coastal ecosystems. Finally, the components of the proposed programme targeted soil and water resource conservation have been developed in accordance with the National Action Plan on Desertification, with which this programme has developed joint programs on GIS monitoring of threatened landscapes.

3. Cape Verde is now in the process of implementing its National Action Plan on the Environment and integrating it into its development planning process. Cape Verde has also ratified 14 international agreements related to environment protection (pollution, desertification, conservation of species, etc.). Cape Verde is a participating member of **CILSS** (**C**omité **I**nter-Etats pour la **L**utte contre la **S**echeresse au **S**ahel), whose objective is to fight the consequences of drought in the Sahel through measures such as natural resources conservation projects, sustainable management of hydrologic resources, and scientific and technical cooperation. The country also signed the following conventions: United Nations Convention on the Law of the Sea, Convention for the Protection of the World Cultural and Natural Heritage, Basel Convention on the Control of Transboundary Movements of Hazardous Wastes, International Convention for the Prevention of Pollution from Ships, Vienna Convention for the Protection of the Ozone Layer, and Montreal Protocol on Substances that Deplete the Ozone Layer.

4. In order to comply with its obligations as a Party to the Convention, Cape Verde completed its National Biodiversity Strategy and Action Plan in February 1999. The NBSAP identifies 20 priority sites for conservation of biodiversity, of which 6 have been chosen for this programme.

c) Endorsement

Focal Point: Ing. Manuel Leão de Carvalho, General Director of Environment, Ministry of Agriculture and Fisheries; GEF Operational Focal Point; **Date of Endorsement:** 1st July, 2002 (see Annex 15).

2) PROGRAMME AND POLICY CONFORMITY

a) Program Designation and Conformity

5. This programme is designed to support the primary objectives of the CBD: the conservation of biological diversity, the sustainable use of its components, and the equitable sharing of the benefits arising out of the utilization of these components. By realizing the relevant components of the National Strategy and National Action Plan for Biological Diversity; the programme will fulfill the requirements of: Article 7 (Identification and Monitoring) - by defining the most important (globally significant) components of biodiversity, and identifying adverse factors and threats; Article 8 (In-situ Conservation) - by creating new protected territories; Article 10 (Sustainable Use of Components of Biological Diversity) – by and furthering the development and demonstration of alternative, sustainable livelihood options that avoid or minimize adverse impacts on biological diversity and provide incentives for sustainable use; Article 11 (Incentive Measures) – by creating economic and policy incentives promoting conservation of biological diversity, and disincentives for activities with adverse impacts on biological diversity; Article 12 (Research and Training) - by promoting targeted research on priority biodiversity, providing training in technical and managerial areas, and developing linkages for exchange of information; and Article 13 (Public Education and Awareness) – by creating and implementing education and awareness programs for local populations, key decision makers, and the general public.

6. The programme fulfils the guidance provided by the Operational Programme 1 (Arid and Semi-Arid ecosystems), by focusing on conservation and sustainable use of globally significant biodiversity in environmentally vulnerable areas, using an ecosystem approach. The programme's phased approach is a specific response to the OP 1 guidance on absorptive capacity. The programme addresses all outputs suggested by the OP, including, protected areas management, threats removal, social integration, sustainable use and institutional strengthening. Finally, the programme addresses OP 1 guidance addressing land degradation mitigation, rehabilitation and their future sustainable management. The programme also anticipates the expected development of the new Focal Area in Land Degradation.

b) Programme Design

Environmental Overview

7. The Cape Verde archipelago consists of nine inhabited islands and numerous islets with a total land area of 4,033 sq. km., located approximately 500 km. off the west coast of Africa. The landscape of the younger, western islands (in particular Fogo, Santo Antão and São Nicolau) is characterized by steep, high mountains and deep river valleys (ribeiras), while the older, eastern islands (Maio, Boavista and Sal) are more eroded and flat, with the highest mountain only 436 meters.

8. Cape Verde is situated at the border of the North African arid and semiarid climatic regions, with a climate defined as dry tropical sahelian. Temperature ranges are narrow as the climate is moderated by the surrounding ocean, although in the high mountain areas frost may occur in the coldest months. Rainfall is low over the entire archipelago, with yearly averages of less than 300mm for the 65% of the territory located at elevations under 400 meters. The northeastern winds carry medium humidity, in particular in autumn and winter, and above 600 meters produce fogs of the utmost importance for the supply of water to natural vegetation and crops, but even in these zones annual

precipitation rarely exceeds 700mm. Rains throughout the country are concentrated in a short period (July-September), and Cape Verde is subject to periodic severe drought.

9. Analyses of the hydrological balance show that 180 million cubic meters of water fall per year on Cape Verde. Due to a lack of intake and storage structures, 87% of this amount is lost as a result of run-off and evaporation. The remaining 13% (23 million cubic meters) is supplemented by access to underground water resources estimated at 124 million cubic meters, of which 65 million cubic meters are technically usable in average years and 44 million in dry years.

10. The dry climate of Cape Verde results in limited vegetative cover, combined with volcanic and sandy soils, results in fragile ecosystems, particularly evident in years of drought. Large areas in the Cape Verde island are covered by open grassland and semidesert vegetation, and considerable parts of the eastern islands are almost barren deserts. The human impact on the natural vegetation has been considerable for more than 500 years, and most of the present vegetation is severely disturbed. The combination of harsh climate and human disturbance limits the regeneration potential of the vegetation, and only remnants of natural vegetation are left.

Biodiversity of Global Significance

11. The current status of fauna and flora, first comprehensively recorded in the 1996 Cape Verde Red List, contains disturbing data (see Annex 8 for Lists of Species). The process of desertification of Cape Verde Islands has resulted in several documented single-island extinctions of endemic taxa, in particular on the eastern islands (e.g. the xerophytes *Diplotaxis glauca* and *Pulicaria diffusa* and the mesophytes *Polycarpaea gayi*, *Sideroxylon marginata*, and *Verbascum capitis-viridis* - Brochmann et al 1997). In addition, anthropogenic action also brought about the disappearance of the Cape Verde giant lizard, *Macroscincus coctei.*

12. Native animal biodiversity, characterized by significant avian, reptile, and arthropod diversity, remains at great risk in the country. Cape Verde has 37 species of gastropods, 15 of which are endemic, and 10 of these are considered threatened. Arachnid species number 111, of which 46 are endemic, and 36 of these are threatened. Of 470 species of insects (coleoptera), 155 are endemic, and 120 of these are listed as threatened. Over 59% of the land mollusks are threatened, as are 28% of the land reptiles.

13. The condition and future status of avian species in Cape Verde are particularly disturbing. Overall, 47% of the bird species on Cape Verde are threatened, including 17 of the 36 species that reproduce on the islands. Several endemic birds are listed as endangered, including *Pandion haliaetus*, *Halcyon leucocephala* and *Calonectris edwardsii. Alauda razae*, which occurs only in Cape Verde, has been reduced to a population of 250 individuals. The first census of Red Kite (*Milvus milvus fasciicauda)* and Black Kite (*Milvus m. migrans)* revealed populations on the entire archipelago of fewer than 10 individuals of each species (Hille, 1998). Follow-up studies by Hille & Thiollay in 1999 indicated a population decline to only two individual Red Kites and one Black Kite.

14. Regarding flora, there are 238 vascular plant taxa in the Cape Verde archipelago. One genus, Tomabenea (Apiaceae) is endemic, and there are 82 endemic species all of which are angiosperms. The vast majority of these (74 species) are dicots, with the largest families being Asteraceae with 16 and Brassicaceae with 12. Most of the endemic species found in Cape Verde (67) are woody perennials, mainly shrubs or sub-shrubs, with only two native species of trees, *Phoenix atlantidis* and *Sideroxylon marginata*. The remaining fifteen species are herbaceous, eight of them annuals and seven perennials.

15. Of 110 species of bryophytes in Cape Verde, 40 are threatened, while of the 15 endemic species, 6 are threatened. There are 240 species of angiosperms in the islands, of which 84 are endemic and 45 of these are threatened. Over 65% of the pteridophytes and 29% of the lichens are threatened.

16. Cape Verde's endemic terrestrial biodiversity is well distributed throughout the islands, with island size and diversity of climate and geographic relief (and thus ecological niches) the most important determining factors. Santo Antão has the richest endemism with 46 species, followed by São Nicolau with 44, Santiago with 36, Fogo with 35, São Vicente with 34, Brava with 24, Boavista with 14, Sal with 13, Santa Luzia with 12 and Maio 10 species (proposed project sites are located on the first five of these islands). Santo Antão is also the island with most unique endemism, with 11 species unique to Santo Antão, followed by São Nicolau with 7, Fogo with 6, Santiago with 3 and São Vicente, Sal and Brava with 1.

17. A wide variety of medicinal plants, both exotic and native, are found throughout the islands of Cape Verde. These plants are widely used by rural populations, with the most diversity and usage on the islands of Santiago, Fogo, and Santo Antao. For example, the endemic herb cidreira (Micromeria forbesii) is known and used by rural populations in many areas as an herbal tea. Other plants are used for such ailments as kidney problems, intestinal problems and diarrhea, hemorrhoids, and heart conditions. A list of medicinal plants commonly used in Cape Verde is provided in Annex 8 – Table 3.

18. Cape Verde's marine biodiversity is also significant. In the tropical area of the Atlantic Ocean where the Cape Verde archipelago is located, some 273 species of fish have been counted (apart from migratory species) of which 70% are endemic. Species surveys show large numbers and a high variety of fish, with approximately 100 species belonging to different families. While overall fish populations are high, the percentage of endemic fish species in the specific area of Cape Verde islands is considered to be low. However, detailed studies about the existing marine resources are necessary in order to establish the quantities and distribution of these species

19. There are 5 species of turtles in the Capeverdean waters: *Dermocels coriacea*, *Chelonia mydas*, *Eretmochelys imbricata, Caretta caretta* and *Lepidochels olivacea.* They have been generally exploited in an unsustainable fashion for decades. The eggs and the meat are highly appreciated food by humans, and the shell is used to make jewelry items. Last year the Project Natura 2000 started working with communities on the island of Boa Vista to establish conservation programs and ensure the reproduction of turtle species on the island.

20. Of the four known families of crawfish, two are found in the Cape Verde archipelago: the Palinuridae (pink, green and brow lobster) and the Scyllaride (rock lobster*). Palinuris charlestoni* is an endemic species. All species existing in Cape Verde are exploited often to the limit of sustainability. Cape Verde coastal and marine ecosystems also support marine mammals (whales & dolphins), coral reefs, algae and sponges.

21. Cape Verde's National Biodiversity Strategy and Action Plan has identified twenty critical habitats spread throughout the islands for priority protection, of which six terrestrial sites have been selected through a participatory process during the PDF B, to be included in the proposed programme as priority demonstration sites. The six sites are:

- Moroços, and Cova, Ribeira da Torre and Ribeira de Paúl, on the Island of Santo Antão
- Monte Verde on the Island of São Vicente
- Monte Gordo on the Island of São Nicolau

- Serra Malagueta on the Island of Santiago
- Chã das Caldeiras on the Island of Fogo

22. Project field activities will focus on these six sites located on five different islands in Cape Verde. Criteria used in selecting these final sites were the following: 1) high species & genetic diversity; 2) representation of different ecosystem types; 3) presence of rare and endangered species; and 4) degree of threats and probability of success in addressing them. The project sites include higher elevation areas, as well as the lower altitude buffer zones. The higher elevations are hot spots of biodiversity in Cape Verde due to the ecological niches created by higher precipitation rates and geographic relief. Details on the six project sites (location, biodiversity and socio-economic status) are provided in Annex 6. Maps are provided in Annex 7.

Land Degradation and Desertification

23. Cape Verde suffers from average national rate of soil erosion of 7.8 tons/ha/year. In the project sites areas, which are all high elevation zones with steep slopes and higher rainfall, these rates are even higher, so that large areas of the land under human management are significantly degraded (see Annex 5 for detailed statistics). In addition to natural rates of erosion typical for these dryland ecosystems, increased erosion is caused by overgrazing by ruminant species and poor agricultural practices (lack of terracing, agriculture on steep slopes, etc.). Cape Verde has undertaken a decades-long reforestation program to combat this problem, with 85,000 hectares reforested in the 25 years since independence, but the problem remains a severe one throughout the country.

Socio-Economic Context

24. The population of Cape Verde is estimated at 431,989, of whom 53.7% are urban dwellers and 46.3% live in the countryside. The vast majority of rural inhabitants are subsistence farmers or livestock herders (primarily goats, and to a lesser extent, cattle). Grazing activity is typically carried out in an open access regime, with intensive use of communal rangelands by an entire community. The communal grazing areas are typically the property of the state, although precise ownership is often poorly defined. Agricultural lands, in contrast, are entirely privately owned, although under an array of ownership/use systems (see Annex 5 for detailed description).

25. For the most part, ownership and use by the same person remains the most common system (e.g. 64% in Santo Antão, 62% in Sao Nicolau). However, in some areas much of the ownership is by absentee owners (e.g. only 25% ownership/use in Santiago). In the case of Santiago, the majority of the land (60%) is under the "renda" system, while even in Santo Antão and Sao Nicolau the "parceria" system accounts for 29% and 36% of the land, respectively. Over time, and with continued high levels of emigration out of the country, the percentage of land under differing forms of indirect ownership is increasing.

26. The practical impacts of these different ownership and use systems can be significant for natural resources management and conservation. For example, under the "renda" system that predominates in Santiago, investments in land improvement (e.g. water management systems, planting of fruit trees) are minimal because those working the land understand that such improvements would only increase the rents that they pay. On the other hand, the system "posse util de facto" has generally shown better results for conservation because it functions essentially like ownership for as long as the renter is on the land (typically long-term). In areas where land is primarily farmed by the owner, as in Santo Antão and Sao Nicolau, investments in the land are also generally high.

27. Table 1 in Annex 5 summarizes data on land use and other socio-physical aspects in the six project sites. On average, the land area degraded is between 15 and 40% of total area. Fuelwood consumption is estimated at 10kg per capita per day, in some islands reaching as high as 250 tons per year.

28. In rural areas, agriculture and livestock production remain by far the two largest sources of livelihood. A total of 42,000 hectares (10.2% of the country's landmass) is dedicated to rainfed agriculture, primarily on the islands of Santiago, Fogo, Sao Nicolau and Santo Antão, and an additional 4% of the country is under irrigated agriculture. In addition to agricultural uses, 35% of the landmass is used for grazing on natural and cultivated pasturelands, and 20.3% consists of forested areas. Bananas constitute the main cash crop, followed by coffee and sugar cane. Cereals, vegetables and tubers are only sold locally. Livestock production is dominated by goat, but also includes cattle, sheep and chicken. Most of the grazing animals belong to small farms that combine pastoralism and agricultural activities. Traditional systems of land management still exist, such as biological control of pests, but are fast being lost due to urbanization, and government programmes that encourage "modern" forms of agriculture and health care (see Annex 5).

29. The project sites are in general relatively far from the coast, however, in a few cases, there is proximity and therefore, local communities practice both agriculture as well as subsistence fishing.

Threats and root causes of Biodiversity Loss, and Land & Water Degradation

30. The baseline situation, including threats and root causes is described in detail in Annexes 4 and 5. What follows is a summary of the salient points.

31. Overexploitation of Natural Resources: Fuelwood extraction, and to a lesser extent logging, have had a severe impact on native vegetation in much of Cape Verde. In addition, harvesting of native plants for medicinal and traditional ritual uses has reduced the populations of certain species. Conservation, reforestation, and the creation of community vegetation areas for fuelwood, all promoted by DGASP, have reduced this pressure in recent years, but overexploitation is still the norm in many areas. Subsistence hunting of native fauna, particularly birds (e.g. Calonectris edwardsii, Halcyon leucocephala and Passer ssp.), is another problem in terrestrial ecosystems, although public education campaigns by INIDA have reduced the pressure in recent years. Studies completed during the PDF-B process indicate that hunting in the proposed project areas is an activity engaged in by relatively few individuals, and that even these persons use hunting only as a supplement to more important income generating or food producing activities. Finally, overexploitation of water resources (e.g natural springs) by grazing herds is reducing the water available in natural ecosystems and degrading the areas immediately surrounding water sources.

32. Exotic Species Impacts: A number of vegetative species, including *Lantana camara*, *Fulgcraea gigantesca* and *Dicrostacys cinerea*, have spread from agricultural areas to adjacent wild lands throughout Cape Verde. In addition, reforestation projects have used almost exclusively exotic tree species, predominantly pine and eucalyptus in the higher, more humid zones, and acacia and Prosopis spp. in the arid zones. For the most part, reforestation has taken place in already degraded areas, and is typically composed of highly varied, mixed species forests which can provide appropriate habitat for some native species. In other areas, however, monoculture reforestation has been undertaken, effectively eliminating native plant species.

33. Ecosystem degradation: Human economic activities such as heavy grazing by domestic animals have a significant impact on managed and wild ecosystems in Cape Verde. The

impact of goat herds in particular has a long and significant history in Cape Verde, with the human settlement of some of the islands prompted entirely by the search for new rangelands. At one time, goat meat and skins were the country's single biggest export to its large trading partner Brazil, and still today goat herds are by far the largest livestock business in Cape Verde. Large areas of native vegetation throughout the islands have been severely degraded solely due to the uncontrolled grazing of goats. Erosion caused by inappropriate agricultural practices are responsible for the destruction of entire habitats in Cape Verde, in particular vulnerable dryland vegetative zones. Continuing land clearance for agriculture and human settlement is threatening many of the remaining pristine areas in the country. The creation of exotic tree plantations, though beneficial for erosion control, has also transformed entire native habitats so that most native species cannot thrive. In addition, ecosystems are also heavily impacted by the increasing use of agro-chemicals and the dispersal of untreated human waste.

34. Unsustainable and Inefficient Management of Natural Resources: Although Cape Verde is composed largely of fragile dryland ecosystems, human systems for effective management of soil and water resources are woefully inadequate. Water catchment and distribution systems are poorly developed, so that much of the limited water supply is not captured for human use but flows directly to the ocean. Systems for soil management are also largely rudimentary, so that erosion and soil exhaustion are commonplace. Finally, the use of marginal lands for crop production (in particular, the steep slopes found throughout the proposed project's sites) has increased in recent years, with significant impacts on soil and water quality at these higher elevations and in the watersheds below. Annex 4 summarizes the threats and root causes of biodiversity loss in Cape Verde.

35. The underlying causes for the direct threats to the natural resources in Cape Verde, including those found within the proposed project sites, are numerous and interrelated. One of the most pressing issues is the heavy reliance by rural communities on intensive and unsustainable exploitation of natural resources as their sole viable economic alternative, to meet their own consumption needs and to produce some earnings in the cash economy. This is compounded by the unavailability of other economic options to earn the income necessary, for example, to buy fodder for livestock, to engage in alternative income generation activities. Rural inhabitants also have increased their use of resources in previously inaccessible areas (i.e. steep mountain areas), and see little reason not to exploit resources as long as they remain "free" under an open-acess regime. The very low participation in economic activities other than natural resource exploitation is a function of unavailability and poor knowledge about options and alternatives for sustainable use, a lack of basic business skills, and the complete lack of access to credit in almost all rural communities in the country.

36. The existing system of land ownership and use in Cape Verde also poses challenges to effective resource conservation. Under some of the systems where ownership of agricultural land and actual use of the land are separated (e.g. parceria), there is no incentive for those using the land to manage it over the long-term, and thus long-term stewardship activities are not undertaken. In some cases (e.g renda), actual disincentives exist for land users to undertake improvement of production systems and soil and water resources, as such improvements only increase the rents paid by tenant farmers.

37. Another underlying cause of ecosystem and resource degradation is the poor knowledge that exists among resource management agencies, as well as local populations, regarding ecosystem functioning, species interactions, biodiversity values, and the impacts of human activity on fragile dryland ecological areas. Surveys of local inhabitants have demonstrated only limited understanding of these issues, and yet a high degree of interest and willingness to act once the issues are explained and viable options are offered. For example, the need to avoid destructive grazing of valuable native flora, especially

medicinal plants, is not widely understood in most areas, even where members of the local community make a living from gathering such plants. The ecosystem-wide effects of agro-chemical use are also poorly understood. On a broader level, few rural inhabitants are aware of the globally significant biodiversity that exists in Cape Verde, or even within their own communities, or that such resources were endangered by human activities. However, there have been widespread expressions of pride and concern among rural inhabitants when they are educated on this issue.

38. The actions of rural communities are compounded by destructive and poorly planned activities carried out by state resource management agencies. Significant reforestation has taken place in many areas of Cape Verde, all of it using exotic tree species. Promotion of agro-chemicals and inappropriate crops, as well as poor soil and water management strategies, have also had serious impacts on natural resources. The reasons for these policies are many, including an emphasis on economic development priorities over conservation actions. Moreover, resource management agencies are generally under-funded and have only limited technical capacities, making effective decision-making and project implementation difficult. Coordination among the resource management agencies is not highly developed in policy or practice. In addition, these agencies generally do not coordinate with local authorities, and do not allow for local community participation in project design.

39. Finally, a legal framework for conserving and sustainably managing biodiversity and other natural resources has yet to be developed in Cape Verde, so that actions by state agencies, municipal authorities, and individuals alike are poorly regulated and monitored. Many areas of state-owned land, including much of the territory found within the proposed project sites, does fall under various laws and regulations on resource use (for example, limitations and prohibitions on grazing). However, these laws are poorly understood and rarely enforced, so that these areas remain open access regimes. Even some private agricultural lands suffer from this problem, as pastoralists allow their herds to roam freely on lands where ownership is clear, but not duly protected and enforced (a significant problem for the numerous farmers who own plots of land well away from their homes). As for biodiversity conservation, while language supporting this goal exists in general laws on the environment, these are not supplemented by specific regulations, and no explicit laws exist for the protection of wild flora and fauna.

Baseline scenario

40. Significant baseline funding is being devoted to projects and programs with relevance to the proposed project, particularly in the area of natural resources management. A marine protected areas project with a budget of $875,000 is under implementation, as is a $350,000 project to develop a strategic plan for the Cha das Caldeiras protected area. Land degradation and desertification projects are critical in Cape Verde, and current projects include one of $830,000 for soil and water management projects on four of the islands where the GEF project is also operating, another of $660,000 for watershed management and land-use planning projects, a third of $320,000 for the construction of small dams specifically designed to reduce soil erosion, and finally one of $350,000 for monitoring desertification in Cape Verde as part of an overall program for monitoring desertification in the Sahel. In the related area of water conservation and management, there is a $450,000 project for small-scale irrigation pilot projects, as well as a $45,000 project for a water storage system for irrigation and livestock use. In the forestry and fuelwood sector, almost $1,000,000 is being spent for a variety of forest management and reforestation projects throughout the country, including in areas within or nearby five of the GEF project sites (all except Monte Verde), while another $1,500,000 is supporting an agro-forestry project in communities within and just outside of the Cha das Caldeiras project site on Fogo. UNDP is implementing a project with the newly created DGA for

"Institutional Capacity building" with $250,000. In the area of poverty alleviation and economic development, there exists a project of $525,000 to support tourism development in the Cha das Caldeiras area, another of $1,300,000 to promote rural tourism on the island of Santo Antão, and a $600,000 project on Fogo to expand wine processing facilities and equipment, as well as develop new food products (jams, marmalades, pickles) for local production and sale. Finally, the Cape Verde Ministry of Energy is implementing a $48 million project entitled "Cape Verde: Energy and Water sector Reform and Development" to create a private sector delivery infrastructure for off-grid electrification services using photovoltaic and wind systems, and to improve energy, water and waste water related services; about half of this is considered as directly relevant baseline. More details on baseline programs and activities is found in Annex 1.

Natural Resource Use and Livelihood Opportunities

41. The Government of Cape Verde and local authorities currently focus most of their financial resources and development programs on basic social services and improving basic infrastructure (roads, communications, etc.). Rural communities in the project site areas are offered few economic development services, leaving many people to rely heavily on local natural resources for subsistence and income. In a "business as usual" scenario, very little support for new livelihoods in these mountain areas would be forthcoming and most people who live in or near the project areas would continue to live a largely self-supporting, subsistence lifestyle that relies heavily upon resources on their own lands and within neighboring PAs. The PDF B process showed that local inhabitants are well aware that certain of their activities are causing widespread degradation and the decline of the natural resource base upon which their livelihood depends, but without concentrated interventions they will continue to lack the technical and financial means, and the organizational and regulatory mechanisms, to reverse this decline.

42. In the baseline scenario, few if any special programs would be implemented to enable local communities to develop new and alternative livelihoods. Alternative livelihood options for rural inhabitants exist in Cape Verde, but are not well known or developed. Small businesses based on the use of native biodiversity (e.g medicinal plants) are likely to grow slowly (if at all), and without guidelines or regulations on sustainability. In the absence of this programme, local populations will continue to exploit natural resources as intensively as possible with very little support or guidance. State research institutes and nurseries have information on and stocks of native fruits, herbs and medicinal plants that could be of great use to local farmers and fruit and medicinal plant producers, but currently these institutions have few links with local producers. Access to credit in these rural regions is virtually non-existent for small and even medium sized businesses, further limiting local development.

43. Ecotourism is emerging in a few of the areas (notably Fogo), but few benefits accrue to local populations, and the industry will continue to grow slowly, hindered by a lack of investment capital, supportive laws and policies, tourism expertise, and sufficient infrastructure. Despite its promising potential, the development of nature-based tourism in Cape Verde will depend heavily on the identification, broad recognition, and targeted marketing of the most viable sites in an organized and long-term campaign. An increase in successful local businesses associated with ecotourism, medicinal plants, and fruit production would enhance public interest in biodiversity conservation, and provide local entrepreneurs with an economic incentive to conserve natural resources. National support for nature-based tourism is reflected in the National Environmental Action Plan, which includes among its strategic objectives: d) to develop tourism on the basis of diversified cultural and natural products adapted to local conditions and environmental limitations; j) to promote the preservation of the environment as a natural heritage and to develop rural tourism; and k) to plan the development of special integrated tourism zones (ZDTI). The

project will work with the Ministry of Tourism to designate all project sites as part of the ZDTI program, and to implement other objectives related to nature-based tourism.

Land Ownership and Use in and around Protected Areas

44. The proposed project sites are located in areas that in Cape Verde harbor significant biological diversity. However, many of the characteristics that make these areas biologically rich (higher precipitation, varied micro-climates) are also beneficial for human agricultural and livestock production uses. As a result, significant parts of all of the proposed protected areas are used for human economic activity (see Annex 5 – Table 1). Use of lands within these zones is frequently shared by those living within the areas and others living on nearby lands. Members of the latter group often live at a lower elevation but travel frequently to the higher zones to graze animals and collect vegetation (firewood, fodder, medicinal plants) and, less frequently, to hunt.

45. A total of 212 households are settled inside the proposed Park boundaries (or 8% of the total population in and around the proposed Parks). Investigations and discussions with the communities during the PDF B process revealed that none of these settlements are within critical biodiversity hot spots. Local communities have gained an initial understanding of the concept of zoning, and are willing to negotiate zoning regulations that would protect hot spots, as well as allow regulated and sustainable use of resources in non-critical areas of the proposed parks. Government has indicated its willingness to provide compensation to households where necessary.

Institutional, Legal and Policy Framework for Conservation

46. Cape Verde has a limited institutional, legal, and policy capacity to develop and implement effective strategies for the conservation of its natural resources. Some of the institutions needed to conserve biodiversity and prevent land degradation already exist, but there is a lack of any productive and cooperative arena where these agencies can meet and exchange information, and laws and policies remain fragmented and non-integrated. A lack of funding constrains most resource conservation and management agencies in Cape Verde, and is perhaps the primary reason that they are unable to meet their objectives. Though increasing numbers of rural inhabitants, resource managers, and policymakers recognize the importance of conserving Cape Verde's natural resources, their good intentions have little coordinated direction or support. Annex 5 provides details on the Institutional Framework at local and national levels, legislative and policy framework, and research and monitoring capacities.

47. Cape Verde does not currently possess the institutional or legal framework and capacities necessary to effectively and fully implement the mandates and many of the interventions planned by the various institutions responsible for natural resource management and related areas. Resource management institutions such as the DGA and INIDA are poorly funded, under-staffed, and lack requisite technical capacities. Other resource agencies such as DGASP are larger and more well funded, but continue to adopt strategies that favor resource exploitation. There are gazetted plantation forests (exotic species) under the strict supervision of the state (through the state forestry agency DGASP). Up to the recent past, community access to these forest resources was all but non-existent. However, with many of these reforestation areas firmly established, the government is now promoting the sustainable exploitation of fuelwood and other forest resources by local inhabitants. DGASP is in the process of implementing training programs for forest management and sustainable harvesting for local communities, with the eventual goal of transferring management of these areas to the local inhabitants. DGASP also has substantial human resources in the form of forest wardens and managers to devote to this work, as the agency has historically been over-staffed as a means of reducing rural unemployment. Coordination between these agencies, and with local authorities and populations, is haphazard and infrequent. There is no formal coordination mechanism that can bring the sectoral ministries together on environmental issues. As a result, apart from

notable efforts in soil conservation, support for sustainable resource management activities, including vegetation and water conservation activities, remain the exception in most of Cape Verde.

48. Conservation of globally significant biodiversity is even less developed. Knowledge regarding the existing biodiversity in Cape Verde is available, but no coordinated research program exists to enhance understanding beyond basic inventory information. Although the DGA is mandated with the responsibility for conservation of biodiversity, it has neither the human, technical, or financial resources to undertake activities in this sphere. Furthermore, no protected areas currently exist in Cape Verde; although several areas have been "declared", only Chã das Caldeiras (Fogo Island) has started to benefit from on-the-ground activities. The only areas under any sort of formal protection are the forestry management zones, which employ guards to regulate human activity and technicians for silvicultural management. These reforestation areas are in fact the biggest ecosystem management activity in Cape Verde, increasing in area from 3,000 hectares in 1975 to 82,000 hectares by 1998. However, while these areas are effective in erosion control and limited provision of fuelwood, they still today are planted exclusively with exotic species that contribute little to biodiversity conservation in the country. DGASP has agreed in consultations during the PDF-B phase to undertake future reforestation activities with endemic species.

49. Local municipalities throughout Cape Verde are tasked with environmental protection. In practice, however, the municipalities have been concerned primarily with specific areas like construction and sanitation (sewage). The most relevant activities for biodiversity conservation and soil and water resource management have been in the areas of public awareness and education. However, local authorities possess only the most minimal technical and financial resources to meet their wider mandates.

50. Non-governmental organizations in Cape Verde also play an important role in environmental conservation, by filling some of the roles that state agencies are unable to undertake due to resource constraints. For example, both the Association of Friends of Nature (AAN) and the Association for Environmental Protection and Development (ADAD) carry out education and awareness programs in coordination with municipal authorities and school districts, on subjects ranging from desertification to pollution to conservation of biodiversity. AAN has established several community forestry projects, the only ones of their kind in Cape Verde.

51. Existing farmer and livestock herder's associations in Cape Verde traditionally have focused exclusively on strategies to improve socio-economic conditions, with little regard or understanding of environmental or resource sustainability issues. These associations represent an already existing and potentially powerful mechanism for educating resource users and empowering them to adopt sustainable practices, but association leaders themselves need to be educated on basic strategies and techniques relevant to their particular local environments and resources. Furthermore, these associations have little interaction with state resource managers, including those who manage landscapes often used for herding and collection of vegetation. In addition, resource user associations also have almost no experience of communicating strategies and sharing lessons learned among each other.

52. The outlook for significant institutional strengthening and effectiveness in the absence of the proposed programme is not promising. The newly elected government has identified four priorities for institutional strengthening: research, monitoring, enforcement, and sustainable use. However, the persistent lack of financial resources for conservation activities and low public awareness of conservation priorities will continue to thwart effective implementation of these and other conservation objectives.

53. During the past 10 years, significant effort has been undertaken in Cape Verde to update the environmental laws and to integrate environmental concepts into others programs. During this time, new laws on Environmental Impact Assessment and laws on Forest Resources have been passed. These laws represent a significant improvement in the level of legal support given to environmental protection in Cape Verde Islands.

54. Currently, an array of laws, legislative decrees, and resolutions govern national policies on biodiversity conservation and land degradation, including policies for the protection of marine resources, the conservation of native agricultural varieties, and the goal of establishing a protected area on each of the inhabited islands of Cape Verde (and several of the uninhabited ones). However, there are no existing laws for the explicit protection of native flora and fauna or for the formal recognition and establishment of protected areas. Draft laws to establish protection for endangered native flora and fauna, and to formally create a national agency for protected areas management, have been created during the PDF-B process of this programme and are now being prepared for formal submission and approval. Approval of this key legislation will be considered as a benchmark within the first phase of the project, and will serve as a measure of the government's commitment to this project.

55. Research and monitoring of biodiversity in Cape Verde is primarily the responsibility of the National Institute of Research and Rural Development (INIDA). INIDA is a federally funded agriculture research institute, responsible for monitoring and applied research on agriculture in general, and biodiversity in particular. It is the only institution in Cape Verde working on the classification of species, population analyses at the local level, and determination of species' conservation status. INIDA also conducts basic research on plant diseases, soil erosion control; soil fertilization needs, and micro propagation. INIDA's budget is severely limited, however, and extensive research and long-term monitoring programs are not currently feasible.

56. Although the GEF Alternative will cover institutions, laws, and policies focused on biodiversity and protected areas, the government of Cape Verde is also in the process of better integrating conservation and sustainability concepts into its overall development objectives and economic growth programs. A new National Environmental Action Plan (NEAP) was elaborated in 2002, and implementation strategies for that plan are being formulated that include the participation of broad sectors of government. The NEAP, as well as the government's new Poverty Alleviation Action Plan and its action plans on biodiversity and climate change, call for sustainable development models for agriculture, water use, energy and other natural resource sectors that will constitute an important baseline and complement and support the proposed programme's objectives.

RATIONALE & OBJECTIVES (GEF ALTERNATIVE STRATEGY)

Overall Objectives & Strategy

57. The baseline situation can be summarized as follows: Cape Verde is undertaking various efforts and activities to conserve its biodiversity, land, and water resources, ranging from ongoing legislative reforms, to the proposed creation of new protected areas, basic research, and public education and awareness. These efforts may succeed, to a greater or less extent, in meeting the national interest in conserving natural resources and limiting land degradation and desertification. However, it is unlikely that current and planned efforts and initiatives will be sufficient to effectively conserve globally important

biodiversity for the following reasons: 1) a lack of focus within these efforts on biodiversity specific issues; 2) insufficient national experience in developing and managing protected areas and buffer zones with community participatory mechanisms, or the legal and institutional framework necessary to achieve biodiversity conservation and sustainable use; 3) insufficient financial resources for protected area development and management, or for research and monitoring activities; 4) agricultural and socio-economic initiatives and developments that, unless systematically orientated towards the conservation of biodiversity, will not reduce resource use threats and may even increase them; and 5) current levels of awareness raising and education that are insufficient to gain the understanding and cooperation of local stakeholders, the greater commitment of decision makers, or the necessary changes in attitude and behavior of the general public (see Annex 1 for details).

58. The GEF supported Alternative programme will undertake the additional activities necessary to overcome current legal, planning, institutional, financial, and capacity barriers and gaps within baseline activities in order to demonstrate viable approaches to biodiversity conservation and resource management within a newly established system of protected areas in Cape Verde. In this way, the programme will ensure global biodiversity conservation, mitigation of land degradation, as well as promote national sustainable development goals.

59. The **Overall Development Goal** of the programme is the conservation of globally significant biodiversity and the reduction of land degradation and desertification in priority ecosystems of Cape Verde. The Government of Cape Verde, in partnership with local communities, will conserve globally and nationally significant biodiversity in six newly established protected areas, and in surrounding landscapes, by developing and applying new strategies for ecosystem protection and sustainable resource management.

60. The programme will contribute to this goal by building on and reorienting existing baseline activities and development trends within the selected project sites. More specifically, the programme will seek to establish an integrated and sustainable framework for biodiversity conservation and sustainable resource use by: *a)* building on emerging baseline initiatives (draft legislation, draft institutional design) to develop and implement an appropriate legislative structure, coordinated institutional mechanisms, and enhanced capacity environment at national and local levels for conservation activities; *b)* creating and operationalizing a national institution for protected areas management, formally establishing six protected areas (with initial priority on terrestrial parks), and creating mechanisms for financial sustainability of the protected area co-management system; *c)* building on a strong sustainable development baseline (soil and water conservation, forest management, sustainable energy, tourism, etc.) to nurture the use of sustainable resource management practices and alternative livelihood activities by rural inhabitants within and nearby the protected areas; *d)* building on a moderate baseline to raise awareness among all stakeholder groups and develop links between institutions and stakeholders, to ensure adequate understanding, support and commitment to biodiversity conservation and sustainable resource use. In this way, the GEF-supported alternative will assist Cape Verde in grasping the opportunity to ensure conservation and sustainable development goals from the very inception of its national protected areas system.

61. Although protection of marine biodiversity is also a high priority for the Government, a strategic decision has been made to focus this GEF Alternative primarily on terrestrial biodiversity. In cases where local communities are both agriculturalists and fisherfolk, the programme will promote sustainable fisheries, but the six priority proposed parks are all terrestrial. The reasons behind this strategic choice are as follows:

- Threats to biodiversity are relatively higher on terrestrial rather than marine resources
- The baseline includes a project funded through the Canary Islands (Spain/EU) focusing entirely on marine and coastal resources; this project is expected to result in the creation of several marine reserves
- Protection of high altitude areas and slopes on the priority islands provides ecosystem services downslope, particularly in terms of the prevention and mitigation of erosion and siltation on the coast with its negative impacts on marine resources.

62. The PDF B phase of the programme conducted a capacity needs assessment for the implementation of this complex long-term programme. Cape Verde has never established a national park, and does not have the technical and human resources necessary for running an ecologically and financially viable park system. Very few national experts are trained and experienced as dryland biologists and ecologists. The concepts of community based natural resource management, and integrated conservation and development, have only recently been introduced to the country. There is no precedence for participatory or co-management of protected area systems. As a result, capacity building and developing the legislative and policy enabling environment are seen as important and significant parts of the GEF Alternative. Furthermore, the project has been designed based on lessons learnt in other similar GEF projects in Africa, where protected area systems are being established within a co-management framework (such as Bangassou Forests in Central African Republic, Bamenda Highlands in Cameroon, Cross Borders Project in East Africa, Comoros Biodiversity Project). See Annex 10 for detailed description of lessons learnt. Furthermore, several other pipeline projects are expected to be running more or less in parallel with this one, and learning or mentoring between projects will be fostered (e.g. Senegal Integrated Ecosystem Management; Zambia Protected Areas System; Ethiopia Protected Areas System).

Global Benefits

63. The most important global benefit resulting from the programme will be the conservation of globally significant biodiversity through the protection of native flora and fauna of Cape Verde. Some of Cape Verde's most important and unique humid and sub-humid ecosystems will be protected. Threatened and endangered native flora and fauna, including a total of 12 plant and 18 animal species listed in the Cape Verde Red List, will be protected, their critical habitat secured, and sustainable use regimes developed with local communities. Finally, strategies and methods for biodiversity conservation, soil and water management, and protected areas management, will be assessed and considered for replicated in other areas within Cape Verde and internationally. The programme is also expected to generate global and national benefits related to land degradation control and rehabilitation, and promotion of sustainable livelihoods.

PROJECT COMPONENTS AND EXPECTED OUTCOMES

Project Phasing

64. The Government of Cape Verde has decided that the programme shall be phased over a 7-year period. The reason for phasing is to reduce the risks associated with the execution of a long term and complex programme, to consider absorptive capacity, as well as allow closer coordination with the funding cycles of bilateral and other co-financiers. The first phase of the programme will focus primarily on the institutional, policy and legal frameworks, and build capacity (long and short term training, exchanges, mentoring, etc.) at local and national levels. It will also work with local communities on sustainable use of natural resources and their management, land degradation control, and developing and demonstrating alternative income generation activities, with concrete impacts expected by the end of the phase. Finally, the first phase will initiate the establishment of two priority

national parks, Serra Malagueta and Monte Gordo (commencing in year 3). The proposed project will implement numerous on-the-ground activities by the beginning of the second year of the project that are intended to be replicated throughout the project sites of Phase I of the project, at the additional four sites in Phase II of the project, and at other sites in Cape Verde as appropriate. In so doing, the project will achieve stand-alone results that are independent of potential future GEF funding for Phase II of the project. The current project proposal requests funding for only this first phase. Its indicative Logical Framework and Workplan are provided in Annexes 2 and 11 respectively.

65. The second project (Phase II) of the programme will focus primarily on establishing the remaining four parks. It will also work with government, local communities, private sector and NGOs to identify and implement mechanisms for financial sustainability of project results. Some capacity building, as well as on-the-ground activities with communities will continue as needed. Other aspects of the project will be consolidated as needed (e.g. consolidating legislation and policies as needed; testing new forms of alternative livelihoods, and new approaches to sustainable natural resource management). The GEF increment will gradually diminish in Phase II, as will the contribution from the Dutch support to the Environment Programme (DGIS), to be replaced by government direct financing of all recurrent costs, and by private sector and local community investments. Recurrent costs related to protected area management will be covered through various government actions, including: management of user fees and fines, state budget financing, a trust fund mechanism, and leveraging of donor funds for long term monitoring and research (please see below for details).

66. A second phase of the programme will be triggered upon the successful achievement of certain benchmarks. Apart from achievement of at least 80% of the indicators for the first phase listed in Annex 13, four other specific benchmarks are foreseen reflecting government commitment to the programme: (i) Ratification of legislation pertaining to protected area systems; (ii) declaration and establishment of the first two Protected Areas; (iii) commitment of adequate State Budget financing for recurrent costs of the two Protected Areas, and (iv) establishment of the framework of a long term sustainable financing mechanism for the PA system. Annex 13 provides the benchmarks expected after each phase. These benchmarks will be fine tuned during the feasibility analysis of this project after GEF Council approval.

67. A second project or phase is necessary because:

- Capacity building has to start from almost zero, and will take a long time to complete
- Dryland ecosystems have slower ecological processes than other ecosystems; for concrete results from rehabilitation and protection to have a demonstrable effect, a long programme time frame is required
- As Park Management is a new concept in Cape Verde, the first project will only be able to demonstrate and test this aspect in the latter parts of the first project, after considerable capacity building has been done. This will not allow enough time for monitoring/evaluation and adaptive management. A second project will allow the demonstration to be extended to different ecosystem types, will consolidate global biodiversity benefits, and will allow government to prepare for complete handover of the programme and replication of results to the other 14 priority sites.

68. Within this overall programmatic approach, partners to the GEF have been asked to find their concerns and niches. A major effort at donor coordination was carried out during the PDF B, both as informal and bilateral discussions once the first draft of the LFA was developed, as well as formal round tables. Most partners are not able to commit funds beyond 2-3 years, therefore, the Government of Cape Verde has adopted this phased

strategy. It is expected that GEF funding will be requested as two separate submissions, once in 2002 and the other in 2006 for the completion of this programme.

Project Immediate Objectives

69. The programme immediate objective will be achieved through the implementation of strongly inter-related and mutually supportive programme activities to reach six outcomes, namely: 1) an appropriate legal and policy environment for developing protected areas and implementing conservation activities; 2) a national institutional framework for protected area management with adequate organizational, technical, managerial, and financial capacity, and able to function as a coordination mechanisms for biodiversity conservation; 3) formally established and operationalized protected areas; 4) implementation of sustainable resource management strategies around the protected areas for rangelands, forests, and cropland that reduce threats to biodiversity and soil and water resources, and provision of a mini-grant for non-profit generating community conservation activities ; 5) alternative livelihood opportunities strengthened, such as rural tourism and sustainable medicinal plants harvesting, to reduce pressure on natural resource use within the protected areas and adjacent landscapes; a credit and savings scheme will be developed to finance such opportunities; and 6) adequate awareness and knowledge at all levels to ensure support and commitment to biodiversity conservation; capacities built at local levels, and links established between institutions and stakeholders for a better enabling environment.

70. The following is a detailed description of the Outcomes and Main Activities developed through a participatory process. The Logical Framework covers both the GEF increment and the Direct and Parallel Co-financing for the entire 7-year programme. A detailed list of activities for each outcome is provided in Annex 12A, which further describes the intension of each outcome. The financial plan for each outcome is briefly described here. Details of the financial plan for the first project are provided in Table I (Main text) and Annexes 12A, and 12 B Annex 13 provides a matrix showing the benchmarks expected after Phase I and Phase II. These benchmarks remain to be fine tuned during Project Appraisal.

Outcome 1: Policy & legal framework in place for conservation of biodiversity and management of protected areas

71. A draft Law on Protected Areas and a draft Law on Protection of Fauna and Flora were developed as part of the project PDF-B process, and consultations were undertaken with relevant stakeholders at the local and national level to secure their approval and generate their support for enactment of this legislation. Recommendations from these actors were also incorporated into the draft legislation. Studies and local consultations were made of the land tenure situation in the boundaries of the protected areas (see Annex 6) indicating a need for harmonization of land tenure systems within a co-management framework for buffer zone management, using lessons learnt elsewhere (see Annex 10 Thematic Area 1). Biodiversity conservation, sustainable land management issues and environmental impact assessments need to be further integrated into sectoral policies and programmes to ensure long term impacts. It is expected that most of this component will be implemented in the first project. The second project will need some funding in order to consolidate implementation of the frameworks, or to cover new issues and policies that may appear at that time. GEF financing is expected to be 12% of the total for this component in Phase 1 and will focus on lifting institutional and technical barriers.

1.1 Enact and implement Law on Protected Areas and Law on Protection of Fauna and Flora, including consultations with stakeholders, canvassing public opinion, raising awareness,

enacting and disseminating new legislation, and establishing mechanisms of cooperation between relevant sectoral ministries for the enforcement of the laws.

1.2 Implement changes to land tenure system in and around protected areas to support sustainable use of biological resources, including developing and negotiating changes to and incentives for appropriate land tenure systems on private lands in and around protected areas (see Annex 5 for details on the land tenure system). These activities will be done primarily through co-financing. Various forms of participatory management (inside parks) and common property management (outside parks) will be explored, negotiated and agreed upon with the 59 households living inside the potential protected areas, other local communities and municipalities. Local community participatory management options inside the parks include : participation in development and enforcement of sustainable harvesting regulations according to the zoning plans; participation in establishment of user fees and fines; and sharing of revenues (see link to Activity 3.3). Common property management options cover forest, water and rangeland resources (see link to Outcome 4). These vary according to the ecology of the project sites, and lessons learnt will be applied from other countries (see Annex 10 Thematic Area 2). In cases where no appropriate forms are agreed to, the Government has confirmed that it will provide compensation for land gazetted for the parks. The affected households have been consulted during the PDF B, and innovative ideas for co-management and sustainable use agreements have been identified with them[1].

1.3 Biodiversity conservation and sustainable resource management concepts adopted in targeted sectoral policies and programmes , including a new policy on Joint Forest Management (of government forest reserves) to complement project site activities (Activity 4.6); and studies and policy papers to demonstrate to decision-makers in key Ministries (e.g. Finance) and resource management Agencies, the long-term economic benefits of biodiversity conservation and need for protected areas, primarily focusing on ecotourism, but also raising awareness on the long term ecosystem functions provided by these high altitude protected areas (watershed protection, water supply, etc.).

1.4 Establish programmes to encourage sustainability of actions of Government resource management agencies, including convincing agencies to use native tree species (DGASP has already agreed to this during the PDF B phase), to prevent importation of invasive species, to promote alternatives to agro-chemical use (e.g. biological pest control), to assist with research and development of nurseries for endemic species, and to create germplasm banks or botanical gardens for conservation, testing, and supply of native plant varieties. Research in these areas will be funded by co-financing, while GEF funds will be used to apply information already available, to demonstrations on the ground in the target sites (see Annex 10, Thematic Area 4 for a description of models and information already available in Cape Verde on pest management). GEF funding will also be used to collect endemic seeds from around the islands for the afforestion programmes.

1.5 Establish policies and capacities for the use of environmental impact assessments, including developing EIA guidelines for biodiversity and land and water degradation; increasing technical capacity of DGA to monitor and enforce EIAs.

Outcome 2: Institutional framework in place for participatory management of protected areas

72. The Direction of Environment (DGA), created in February 2002, has a large mandate but little capacity to implement its mandate. The programme will strengthen its capacity with long and short-term training. The government has ensured adequate budgetary allocations

[1] Konate, Y. 2001. Consultancy report, for the PDF B.

for the recurrent costs of the Direction in its present capacity. A bechmark for a second phase project will be the commitment of adequate State Budget for an enhanced capacity. This component will focus on strengthening the PACU and other related divisions of DGA, establishing an inter-sectoral coordination mechanism, and ensuring the financial sustainability of the PACU. It is expected that most of this component will be implemented in the first project. Lessons will be learnt and exchanged with other similar Gef projects in West Africa, such as Senegal Integrated Ecosystem management, Banc d'Arguin National Park, and Mont Nimba project. As capacity building is a long-term commitment, some funds will be made available in the second project to complete the programme. GEF financing is expected to be 34% of the total, and will focus on lifting institutional and technical barriers.

2.1 Strengthen technical and coordination capacity of DGA, including short and long term training for integrated ecosystem management and inter-sectoral synergies, and for participatory, community based ecosystem management. This activity will also include establishment of a new coordination mechanism led by DGA, between PACU and Ministry of Tourism, DGASP, and other relevant state institutions, for integrated and inter-sectoral programming. The coordination mechanism will also include frequent seminars and review of technical documents so that the capacity of the other sectoral agencies can also be built.

2.2 *Develop and implement restructuration, strategic plan, and partnership mechanisms for newly established Protected Areas Coordination Unit (PACU),* including Assessment and recommendations for the institutional structuring of PACU responsibilities, functions, and structure; developing and implementing strategic plans for priority issues for DGA; clear identification of mandate and organizational responsibilities between PACU and specific PAs; information sharing and coordination between and among PACU and PAs; and identification of international organizations and institutions for long-term partnering on technical and strategic issues.

2.3: Training and capacity development of PACU managers and staff, including identifying gaps in current technical and managerial capacity, undertake detailed training needs assessment, and develop and implement training plans, including awareness building and training on the contents and practical application of new and adapted legislation

2.4 Identify and develop viable policies and long-term financing mechanisms for protected area systems, including general policies on visitor/user fees and penalties/fines in PAs to support conservation and sustainable use objectives; pursuing bilateral donor, international NGO and academic partnerships to support long-term research and monitoring program of globally significant biodiversity; and lobbying, negotiating and securing commitment to long term and adequate state budget financing for PACU. In addition, the framework for a long term sustainable financing mechanism (e.g. an environmental trust fund, either as stand-alone for the PA system, or as part of a larger environmental trust fund already under consideration in Cape Verde, including desertification/land conservation projects), will be developed.

Outcome 3: Two and later four national parks created and under participatory community management

73. The programme will establish, in a phased manner, a total of six terrestrial parks in five priority islands. Two parks will be created in year 3 of the first project, another two in year 5 and the final 2 in year 6 (both in the second project). The establishment of the parks will be done through a participatory process, where the local communities and local authorities will be engaged with decisions on zoning, master plan development, and implementation of priority actions (such as ecosystem rehabilitation in critical areas).

Capacities of Park Management staff will be developed. Different options for a Trust Fund for Protected Area Participatory Management will be explored in the second phase, and the most suitable mechanism will be established, using lessons learnt from other GEF projects. Capitalization of the Trust Fund will be done either during Phase II or immediately afterwards, with additional internally generated funds (park revenues; private sector funding; government funds), and donor funding. It is likely that additional GEF funding will be sought at that time for the capitalization. GEF financing for this component is expected to be 80% of the total, and will focus primarily on directly reducing threats to globally significant biodiversity through park infrastructure, training and management, but also on lifting technical and institutional barriers, and providing a demonstration effect.

3.1 Formally establish natural parks (PAs) in six identified sites (2 in phase I, 4 in phase II), including delimitation, management and tourist infrastructure, training of staff, and production and dissemination of field-guides and maps. Staff training will be both short and long term. A detailed strategy for staff capacity building (coordinated with the schedule of establishment of the parks) will be developed at the time of appraisal of the project.

3.2 Inventory baseline environmental conditions, including baseline studies on biodiversity, soil conditions, water resources, and proposed ecological/resource use zones.

3.3 Establish mechanisms for participatory management of PA natural resources with local populations, through establishment of site-level Municipal Commissions for the Environment, which would assess natural resource issues and contribute to management decisions of PA authorities*;* ensure hiring of local inhabitants (PA rangers, tourism guides); secure agreement of local populations and municipalities on proposed zoning schemes and sustainable use regulations (e.g. community access to fodder and fuelwood in multiple-use zones of PAs); and negotiate and establish income-generating activities (tourism related businesses) between parks and local communities and local authorities. The project will also introduce the concept of revenue sharing (between the Parks and the buffer zone communities) into Cape Verde, as an added incentive for local community adherence to the participatory management approach. However this concept will not be implemented until after the Parks have generated sufficient revenue to be shared (probably in phase II).

3.4 Elaborate and implement master plans and zoning classification systems for each PA, including species recovery, soil and water conservation, vegetation management, and other ecosystem programs identified by master plans. These master plans and ecological/resource use zones will be based in large part of the results of the baseline studies undertaken in activity 3.2

3.5 Establish monitoring and evaluation system for natural resources in PAs, including regular inventories of flora and fauna, soils and land degradation; a database on population dynamics of biodiversity and management plans; and promoting exchange of experiences (lessons learned) within the programme and elsewhere.

3.6 Establish mechanisms and conditions to provide revenues to PAs, including systems of visitor/user fees for all PAs; enforcing penalties/fines; framework for a long term sustainable financing mechanism; and lobbying, negotiating and securing Government commitment to long term and adequate state budget financing for PAs.

Outcome 4: Strengthened capacity of local actors, and promote sustainable resource management

74. The Programme will assist local communities in implementing impact-oriented actions, based on traditional knowledge and systems, in natural resource management, including appropriate and sustainable forms of pastoral production, forestry and fuelwood, and agricultural intensification (see Annex 10, Thematic Areas 2,3,4,5,6 for lessons learnt applied to this project). Communities will be given incentives and options to control invasive species and agro-chemical pollution. Awareness raising will be carried out on illegal hunting. A Mini-Grant facility will be established to operate during the project term, to be run by local NGOs or local authorities for local initiatives that promote biodiversity conservation and land and water management, but that do not necessarily generate short-term profits. Most of this component will be implemented in the first project. The second project will need some funding primarily for testing and fine-tuning appropriate techniques with the communities for grazing, sustainable use, and adaptive management of natural resources. A substantial amount of co-financing has been leveraged for this component, reflecting the strong local and national benefits expected. Some of it will be parallel financing and therefore will be run in coordination by other sister projects and programmes (see Annex 12 B). As a result, although the component appears complex, it is expected to be manageable and to yield substantial results during the life of the project. GEF financing is expected to be only 28% of the total, and will focus primarily on lifting technical, financial, and institutional barriers, as well as providing a demonstration effect.

4.1 Establish cooperation mechanisms between stakeholders, including strengthening existing local farmers and livestock herders associations for awareness and application of environmental sustainability concepts; facilitate regular meetings between association members and local resource management agencies, including the newly established PA administrations; establish mechanisms, including island-wide or even nationwide meetings, and site visits between different project areas (focusing in Phase I on visits between and to the two pilot protected areas and the buffer zones from the other four sites), for association leaders to learn from and benefit each other in implementing sustainable resource management practices.

4.2 Implement education and training programs for local stakeholders for sustainable management of resources and biodiversity conservation, including training outreach specialists (extensionists or community experts), using traditional knowledge and local experts as much as possible.

4.3 Intensify and diversify rural production systems to reduce crop expansion and habitat destruction,, including composting systems to restore soil fertility; techniques to intensify crop production (e.g. conservation farming and intensive livestock production).

4.4 Develop and implement management plans for livestock grazing activities primarily outside, but also in specifically zoned areas inside PAs, including Pasture Management Committees and enforcement capacity; participatory management plans for pasture areas; demonstrate and replicate vegetation enrichment techniques for improvement of pastures; mini-catchment systems for pastoral units; rotation systems within and between pastoral units; system of payment of grazing and watering fees in improved pastoral units to ensure financial sustainability including system of fines for infractions; and participatory pasture monitoring system for adaptive management by pastoral units (see Annex 10, Thematic Area 2).

4.5 Demonstrate sustainable systems for exploitation of fuelwood, including at least one community woodlot for fuelwood and fodder in each project site using using already identified native evergreen shrub species and native tree species; train volunteers in woodlot management with training and support from state forest management experts

(DGASP) (linked to Activity 4.7); demonstrate rational techniques for charcoal production and wood cutting, and use of fuel efficient stoves.

4.6 Demonstrate and apply effective soil and water conservation techniques in farmer fields and pastures near the Parks, including assessments of previous efforts in Cape Verde; topographic surveys; development and demonstration of appropriate soil and water conservation techniques, including creation of windbreaks and live hedges in and around agricultural and pasture fields, and gully control (see Annex 10, Thematic Area 3).

4.7 Increase participation of local communities in forest management activities, by establishing mechanisms for community input and participation in state reforestation areas; DGASP training and support for community management of state forest resources; and developing options for increased sustainable harvesting of wood and fodder resources from reforestation areas.

4.8 Establish systems for environmentally friendly pest management, including educating local communities on negative aspects of agro-chemical use; and developing and disseminating locally appropriate alternatives, e.g. those based on traditional knowledge and systems, and integrated pest management systems tested elsewhere in Cape Verde. (This activity is linked to Activity 1.4).

4.9 Identify, test and disseminate techniques for harvesting invasive species for crafts and tools, including techniques for use and eradication of Fulgcraea, and control of Lantana, adapted to local conditions. Lessons from other areas (e.g. South Africa) will be applied.

4.10 Raise awareness to prevent hunting of threatened species, including awareness raising programmes among school children on bird eggs, marine turtles, and other threatened species; with active enforcement of hunting prohibitions within PAs (link to Activity 3.3); and links to the entire suite of alternative livelihood opportunities outlined in Outcome 5, as well as employment opportunities for locals from the creation of the PAs, and the agriculture and livestock production enhancements outlined in Outcome 4, will together provide viable alternative sources of income and food supply for hunters (see Annex 10, Thematic Area 5).

4.11 Provide Mini-Grant for non-profit generating activities in sustainable use of biodiversity, including developing and training for regulations, procedures for access to mini-grants, and monitoring and evaluation. The Mini-Grant facility will be established to operate during the project term as a draw-down facility, to be run by local NGOs or local authorities (depending on the island), with assistance from the project, for local initiatives that promote biodiversity conservation and land and water management, but that do not necessarily generate short-term profits. These initiatives will be linked to each of the activities listed above, so that the project technical staff can provide technical assistance as needed, and ensure that the initiatives are technically viable and follow the project approach. The technical capacity of the NGO will also be enhanced. Lessons learnt from this mini-grant experience will contribute to the development of the PA Trust Fund Mechanism (Activity 3.6), which may include a similar mini-grant facility for local initiatives.

Outcome 5: Local communities benefiting from alternative livelihood opportunities

75. This component will focus on testing and demonstrating options for alternative livelihoods that are capable of generating short-term profits, building on a substantial baseline. The PDF B has identified rural tourism as the most viable option for now (see Annex 10, Thematic Area 8 for details). The project will also investigate further other options that could be tested and demonstrated, e.g. medicinal plants, food processing, and

crafts. A revolving credit and savings scheme, to be managed by local communities for profit generating activities, will be developed and capitalized through co-financing, for the use of replicating these techniques during and after the project (see design elements in Annex 10, Thematic Area 7). The project will provide investment advice to ensure that the initiatives are biodiversity-friendly. The project will train extension workers (soil conservation, forestry, agriculture, etc.) to build local capacity for bio-friendly alternatives, and also will strengthen local farmer's and herders associations. The project will work through INIDA and other resource management agencies to improve public outreach and extension work. Most of this component will be implemented in the first project. The second project will require some funding to continue refining the design of the credit schemes, and building the capacity of local NGOs, private sector, and/or Municipalities to create an "investment advice facility" or a public environmental information service to ensure environmental sustainability in profit generating activities. Substantial amount of co-financing has been leveraged for this component, reflecting the strong local and national benefits expected. GEF financing is expected to be only 6% of the total, and will focus on lifting technical barriers.

5.1 Identify, elaborate and implement a strategy for site-specific alternative livelihood activities, including identifying options other than tourism appropriate to each site, such as medicinal, crafts and other non-timber forest products harvesting, processing techniques for vegetable and fruit products (wine, jams, marmalades); developing techniques and sustainable use regimes for each new activity; creating a strategy for marketing and commercialization of activities; and training of local associations, and extensionists in economic, financial and marketing aspects of alternative livelihood activities.

5.2 Develop and implement ecotourism strategy and mechanisms for community participation, including regulations and standards for local involvement in tourism development; replicating successful models in rural tourism and local involvement (e.g. GTZ, LUX – see Annex 10); working with Ministry of Tourism and national and international travel agencies to develop and apply a marketing strategy to highlight protected areas as premier destination within Cape Verde; and develop existing efforts to sell artistic and cultural products to ecotourists (using the credit scheme of Activity 5.3).

5.3 Develop and implement credit and savings schemes for profit-generating micro-projects, including adapting schemes to local conditions, while taking lessons from Cape Verde and elsewhere; build capacity of rural associations to manage the schemes; capitalizing the credit and saving schemes; and continuous participatory assessment of micro-projects on impact on the standard of living and natural resource conditions.

Outcome 6: National stakeholders aware and supportive of environmental conservation goals

76. National awareness will be enhanced, building on a small baseline, with a concerted media campaign in television, radio, and theatre troups. Magazine and Journal articles will also appear on a regular basis. Art competitions, public relations such as sports fundraisers, will also be used. The cost of such media packages can be high and has been taken into account in the budget. Lobby efforts with parliamentarians, customs and airline officials (for control of invasive alien species) and other decision makers, as well as building the capacity of NGOs and lobby groups will be conducted. This component will be implemented almost equally in both projects, as environmental awareness is a constant and long-term activity. GEF financing is expected to be 25% of the total, and will focus on lifting technical and institutional barriers.

6.1 Undertake a public awareness campaign in Cape Verde, on the new protected area system, invasive species, excessive hunting, and biodiversity conservation and sustainable land

management in general, including publications and programs in print, audio, TV and video media; art competitions, public relations, and training programs for schoolchildren;

6.2 Raise awareness and lobby among parliamentarians and high level decision makers, including awareness building within relevant state ministries and institutions to ensure greater valuation of biodiversity and greater support for relevant conservation and sustainable use initiatives; networking with Convention Secretariats and other international fora.

6.3 Support local NGOs and institutions with relevant objectives to undertake education and awareness activities, including raise capacity of local NGOs in awareness-raising on biodiversity conservation and sustainable resource management; and providing support for establishment of new local NGOs in the project sites where necessary. The capacity of NGOs to foster a dialogue with government institutions, and to convey local concerns to authorities, will also be enhanced.

End of Project Situation

77. At a national level, by the time the programme is completed, national laws, policies, and institutions will be in place for the first protected areas in Cape Verde, and these will be clearly integrated into overall national biodiversity conservation and nature protection policies for the country. The end result will be an effective legal framework, institutional arrangements that allow adequate stakeholder participation, and sufficient technical, financial and managerial capacity to efficiently undertake conservation and natural resource management activities at the six project sites, as well as prepare for potential replication to the remaining 14 sites through non-GEF funds. Comprehensive management plans will have been developed, operationally tested and refined for each of the six project sites and the experience and capacity of institutions and personnel to effectively continue the implementation and long term adaptive refinement of management activities will be in place. Adequate financing of management activities, based on a combination of state allocated funds and funds generated from a Trust Fund, will have been established to cover both recurrent costs and replication costs.

78. At the project area level, six protected areas will be established and operational, focused on biodiversity conservation and partnership with local communities. In areas adjacent to the newly established protected areas, community-based systems for sustainable management of soil and water resources will be preserving local environments and reducing the pressure to utilize protected area resources. A partnership between PA administrators and management staff and local authorities, local communities and the private sector in the landscapes adjacent to the PAs will have been established on the basis of mutual assistance and shared decision-making. An increased diversity of livelihood options, and a positive legal, administrative and technical environment for the conservation and sustainable economic use of natural resources in the area, will have improved socio-economic conditions, and reduced pressures on biodiversity within the PAs. Local communities and policy/decision makers at the local and national level will be aware of the global and national values of biodiversity, have an adequate knowledge of what the protected areas system is attempting to achieve, and become sensitive to environmental issues and inappropriate ways of behavior within the PAs.

Incremental Costs Analysis

79. The incremental cost of the first phase project for activities that are expected to provide global environmental benefits is estimated at US$3,585,600. Leveraged co-financing from non-GEF resources associated with the GEF alternative project is estimated at US$5,706,900. The total project cost, including $346,500 during the PDF-B stage,

amounts to US$9,639,000 (see Annex 1 and 12 for details). This builds on a baseline estimated as $35,475,000. The incremental costs of the project have been developed through a long negotiated process, first with the local and national stakeholders during the ZOPP excercises, and second through bilaterel and group discussions with partner donors. Through this process, synergies have been enhanced and duplications have been eliminated, while keeping within the mandates of the respective partners.

c) Sustainability and risks

80. The creation of protected areas constitutes a means to conserve biodiversity; efforts to make it a reality must be embedded within a framework that guarantees sustained action. In this regard, the GEF alternative would involve a one-time investment to develop the technical, managerial and operational framework for this through an array of well-planned capacity building activities. Specifically, the programme institutional component is directed at: 1) establishing autonomous entities for the management of protected areas; 2) strengthening national capacity in protected areas management; and 3) strengthening the legal and regulatory framework that supports biodiversity conservation.

81. To ensure the long-term financial sustainability of its objectives, the programme has been designed to create an end-of-project situation where long-term recurring costs are minimized, and mechanisms and commitments are in place to provide sufficient funding for those costs that will carry on through the long-term. Significant capital costs associated with basic data collection and inventories, legal/institutional reforms, PA infrastructure, equipment, training, and economic development, will all be addressed during the programme itself, so that ongoing costs for these activities will be minimized. Credit and savings schemes will be fully established and self-financing by the end of the programme, and supporting alternative livelihood activities that also pay for themselves through increased incomes for participants.

82. To improve future financial inflows, PA administrations will be empowered to collect and retain visitor fees and user/operator fees levied on tourism operators, accommodation owners, and others operating within PAs. The programme will also investigate the possibility of applying Watershed Conservation Fees in project site areas that include the watersheds of large urban areas (e.g. Serra Malagueta). The programme will also, through legislative, policy, and educational changes, increase support among the general public and local and national officials for increased governmental financial support for the recurring costs of PA management and other programme objectives. Increased public awareness of biodiversity, and about Cape Verde's system of protected areas, also should increase domestic tourism to these regions, providing further income to PAs and local communities.

83. One option for the long-term financing of a protected areas system in Cape Verde will be a revolving environmental trust fund. This and other options will be explored during the first project and a framework established for long term sustainable financing. In Phase II, the chosen mechanism will be established and capitalized by the end of the programme. The Government of Cape Verde is already in the process of developing a national environmental trust fund to support both biodiversity conservation and efforts to combat land degradation and desertification. The stated objective of this fund will be to provide long-term financing for the recurrent costs of anti-desertification measures (carried out by municipalities) and protected areas management (carried out by the DGA and PACU).

84. Capitalization of the trust fund will come from several sources, including GoCV treasury subventions, environmental user fees and fines and ecological taxes. Increased GoCV treasury support cannot be ensured at this time, but it is believed that the programme will be able to demonstrate the substantial economic benefits of protected areas (tourism

revenues, ecological services in the form of watershed protected, soil conservation, medicinal plants) in order to gain such support. Environmental user fees and fines are already in place for the oil and gas industry in Cape Verde. Ecological taxes already are collected from merchandise import companies in Cape Verde (at 1% of Cost, Insurance and Freight) and distributed to municipalities, and are supposed to be used only for environmental conservation activities, although in practice they are now used for general operating costs. Ecological taxes will be secured primarily through a 3% tax on international visitors to Cape Verde at the time they enter the country, all of which will go directly to the trust fund. Additional monies for fund capitalization will be sought from international donor agencies during programme implementation.

Project Estimated Risks

RISK	RATING	ABATEMENT MEASURES
1. Insufficient or inconstant management capacity	Low	Because the project proposes the first ever protected areas for Cape Verde, national capacity and experience with managing protected areas does not currently exist in the country. There is no certainty that effective management capacity will be developed at all levels and sites by the time the project ends, or that some newly trained management would not remain in the country (e.g. international protected areas specialists). To address this, the proposed project will undertake extensive training and capacity building, at both the national institutional level (PACU) and the project site level (PAs). Ongoing training and outreach support to local inhabitants for natural resources management, and for participatory management with PA administrations, is also a key component of the project design. In addition, the project is designed so that by the end of Phase II all international staff and consultants will be phased out and replaced by Cape Verde nationals.
2. Inability to achieve adequate consensus and cooperation between stakeholders.	Medium	Effective conservation and management of the proposed protected areas will require changes in the activities of some local inhabitants (e.g. grazing, fuelwood collecting, etc.). In addition, transitions to land tenure systems that incentivize sustainable resource management in adjacent landscape will be encouraged over some existing systems. The programme has accounted for this risk in its design, and it is hoped that consultation and partnership mechanisms, public education efforts, and economic benefits will eliminate any initial resistance.
3. Climate Change	Low	Cape Verde is situated on the border of the North African arid and semiarid climatic regions, with a climate defined as dry tropical sahelian. As such, local ecosystems are highly vulnerable to significant changes in climate, and Cape Verde has suffered through major drought-related famines in the past 50 years. The GEF alternative will support research to help identify ecosystems and species most likely to be threatened by climate change, and using such knowledge, undertake preparation activities (short-term protection measures, monitoring, etc). The GEF alternative will also support soil and water conservation measures to lessen the impact of climate change on human communities, thereby reducing potential pressure on natural systems.
4. Capacity to achieve all project objectives	Medium	The project proposes to implement a large program of activities (protected areas management, sustainable natural resource management) that are largely new and unfamiliar to Cape Verde, and the ability to carry out all of these activities effectively is not without risk. However, the phased design of the project is specifically intended to allow for reassessment of project accomplishments and failures after the initial phase, using comprehensive Phase I evaluations and benchmarks established during the logical framework process. Project staff can then determine the necessary allocation of resources and reorientation of project focus for Phase II, including the possibility of abandoning unfeasible activities and adopting new priorities and objectives.

d) Replicability

85. The programme is designed to provide demonstration effects at the local level for co-management of parks, as well sustainable management of natural resources outside of park boundaries, for the eventual replication by local communities and local authorities. The relatively long term of the programme (7 years) will allow lessons to be adequately demonstrated, and disseminated. Replication at the local level is expected to be carried out through private sector, civil society and local government resources.

86. The programme's results in the establishment of 6 parks is also expected to be replicated by the government through sustainable financial mechanisms to the other 14 priority areas (terrestrial and marine) identified by the NBSAP.

87. Finally, the programme's results are expected to be of value for global lessons learnt in the establishment of conservation and sustainable use regimes where none existed before, particularly in crisis countries in Africa.

e) Stakeholder Participation in Project Design and Implementation

88. The proposed programme is the product of extensive consultations with stakeholders undertaken during the PDF-B development process. Local communities and authorities, state resource management agencies, private sector interests, and international donors all participated in various mechanisms (e.g. village meetings, municipality meetings, interviews, ZOPP worksjops) for stakeholder input into the design of the proposed programme.

89. A major objective and focus of the full programme is to ensure the participation of local communities in the sustainable management of their own resources and in the creation and operations of the six protected areas. To achieve this objective, existing community associations (primarily farmer and livestock herder associations) will be strengthened, and new community associations will be created where necessary. These associations, in turn, will participate as members of a Municipal Commission for the Environment to be established at each of the project sites. These commissions will improve the capacity of local associations and municipalities to assess natural resource issues and make co-management decisions with PA authorities; to secure the agreement of local populations and municipalities on proposed zoning schemes and sustainable use regulations; and to negotiate and establish revenue sharing (and management) systems between parks and local communities and local authorities.

90. Project staff will include expertise in participatory and adaptive management. Capacity of DGA, municipalities and park management will be built to integrate participatory planning and decision-making. For additional information on stakeholder participation in programme design and implementation, please see Annex 9.

Project Beneficiaries

91. Local communities will be the most direct beneficiaries of the total economic value of biodiversity maintained in each site, whose conservation will allow for sustainable economic activities such as tourism, medicinal plants, non-timber forest products, etc. (additional information in Annex 5). The local inhabitants will also benefit directly from the soil and water conservation measures undertaken during the programme, which will increase agricultural and grazing incomes while also reducing the degradation of community lands. Local staff of PACU, DGASP, and other state resource agencies will benefit from training and resources for new ecosystem management and biodiversity conservation measures, as will local staff of authorities and agencies responsible for land

and water use and economic development. Other programme participants, such as partner NGOs and government agencies, will benefit from training and improved standing and relations among local communities. The global community, including the scientific community, private sector tourism industry, and possibly biotechnology/pharmaceutical companies interested in natural medicines, will benefit from the conservation of globally significant biodiversity.

Implementation and Execution Arrangements for the Full project

92. The first project will be implemented through UNDP under national execution modalities. The Ministry of Agriculture and Fisheries will have overall responsibility for the project. The General Direction of Environment (DGA), housed within the MAP, will be the official institutional focal point responsible for project implementation and facilitation of operational procedures with UNDP and co-financing sources. The UNDP country office will support project implementation by maintaining the project budget and supervising project expenditures, and by contracting project personnel and subcontractors. The UNDP country office will also monitor the project implementation and achievement of project outputs. The project will rely on existing institutions, particularly the natural resource management Agencies, such as DGASP, the Municipalities, and the extension services. Annex 14 provides more details on project implementation arrangements, including steering committees, and project staffing. These arrangements are indicative and will be confirmed during the feasibility study of the project after GEF Council approval.

f) Monitoring, evaluation and lessons learnt

Monitoring and evaluation plan

93. A regular monitoring program will be instituted to gather data and verify trends and impacts, using the indicators, benchmarks and means of verification developed in the logical framework. The outputs of the monitoring program will be evaluated and made available for planning purposes, to inform strategic decision-making and adapt management strategies. Statistical assessment studies will be conducted to more accurately document resource conditions (number of animal and plant species, reproduction rates, soil erosion rates, etc.). Data collected through the proposed baseline assessments will be synthesized, analyzed and stored in a multi-attributed database for use in monitoring and evaluation. The project will, in collaboration with Cape Verde's program on Land Degradation, develop Geographic Information System databases for each project site. The GIS will be constructed to provide overlays of agro-ecological, biological, geo-physical, productive system, social, demographic and economic indicators. Database management capacities would be developed and training provided to enable end-users to manipulate the system. Information generated through the system will be available to local stakeholders and the public upon request. The information gathered will also compose a critical component in management plans based upon appropriate ecological zoning of protected areas and adjacent landscapes.

94. Outcomes will be evaluated by measuring indicators of ecosystem health and function as well as sustainable use. Annual participatory evaluation exercises will be undertaken with key stakeholders, including local communities, NGOs, and partner organizations. The National Project Manager will be required to produce a Combined Project Implementation Review/Annual Project Report (PIR/APR) designed to obtain the independent views of the main stakeholders of the project on its relevance, performance and likelihood of success. The PIR/APR will be considered at the annual meeting of the Tripartite Committee, as well as by GEF. The programme will document the lessons learned, and make it available to stakeholders over the internet and through reports disseminated within the project area.

95. Two external evaluations are scheduled, one in year two, and one in year four of the first project. These independent evaluations of project performance will match project progress against predetermined success indicators. Each evaluation of the project will document lessons learned, identify challenges, and provide recommendations to improve performance. Success and failure will be determined in part by monitoring relative changes in baseline conditions established in the ecological and economic arenas at the beginning of the project. The final evaluation will make recommendations for the design and submission of the second project of this programme.

96. The detailed monitoring and evaluation plan will be developed at the time of the feasibility analysis of the project, after GEF Council approval and before CEO endorsement. This plan will include a detailed budget; final organizational arrangements for implementing M&E ; specification of indicators for project activities, including intermediate benchmarks, and means of measurement; and provisions for exchanges of experiences and global lessons learnt excercises. The total estimated budget for M&E activities is around $ 200,000 for the four year first project. This amount has been incorporated into the budget of the project.

Lessons Learned

97. An assessment of potential lessons to be learned from other conservation and development projects in Cape Verde was undertaken during the design of the proposed programme. Relevant lessons, organized by thematic area, were extracted and applied to the programme design process. Thematic areas include: land tenure and property systems; livestock grazing and fuelwood exploitation; soil and water conservation; pest management; hunting; rural production systems; credit and savings schemes; and ecotourism (see Annex 10 for details). For each thematic area, lessons learned were summarized and then applied directly to design of strategies and activities for the Full Project. The project will also share lessons with other similar GEF projects in West Africa, such as the Senegal Integrated Ecosystem management project (for PA participatory management) and the Banc d'Arguin and Mont Nimba projects (for Trust Fund development).

3) Financing

a) Financing Plan

98. Table 1 below provides the overall financing plan for the first project (Phase I), by component. Phase II (second project) costs are only indicative at this time, and are provided in Annex 12-C. The total project cost for the first project is estimated at $9,639,000, including GEF funding (37%), Government of Cape Verde cash and in-kind funding (37%), and other co-financing (26%). The total cost for the second project is estimated at $7,461,800 with GEF funding at 38% (see Annex 12-C).

99. Such a large programme can be challenging for Cape Verde. However, the absorptive capacity is good, as there are no other similar programmes in the country that could compete for the same human resources. The first phase will have a strong emphasis on capacity building (human resources, institutions, etc.) which will enhance the absorptive capacity. Furthermore, the programme is spread over a relatively long period, with two distinct projects, giving the opportunity to readjust the scale if necessary as the programme enfolds.

100. Annexes 12-A and 12-B provide the detailed indicative breakdown of financing for each activity in the first project that has been negotiated during the PDF B stage with all relevant partners. This will be verified and fine-tuned during the feasibility analysis after GEF Council approval, and confirmation letters of all co-financing arrangements will be provided at the time of CEO endorsement

Table 1: Project Output Budget – first phase
(All figures in US$)

Project Outputs/Activities	GEF	GoCV *	UNDP	Other Co-finance**	Total
Outcome 1: Policy, legal framework and capacities in place for conservation of biodiversity and management of protected areas	157,400	951,600	100,000	130,000	1,339,000
Outcome 2: Institutional framework in place for participatory management of ecosystems	347,400	682,500	0	0	1,029,900
Outcome 3: Two natural parks created and under participatory community management	2,237,900	310,400	0	270,000	2,818,300
Outcome 4: Strengthen capacity of local actors, and promote sustainable integrated, participatory ecosystem management	630,600	897,900	50,000	630,000	2,208,500
Outcome 5: Local communities benefiting from alternative livelihood opportunities	83,600	454,300	170,000	680,000	1,387,900
Outcome 6: National stakeholders aware and supportive of environmental conservation goals	128,700	235,200	145,000	0	508,900
Total (excluding PDF B)	**3,585,600**	**3,531,900**	**465,000**	**1,710,000**	**9,292,500**

* GoCV contribution includes both DGIS funds ($2,152,100) and in-kind (estimated $1,379,800).
** Other direct co-financing has been negotiated with: USA, France, Italy, Germany and EU-FED. Additional co-financing from Sweden (SIDA) is expected.

b) Cost effectiveness

101. This programme is designed to be cost-effective and produce programme outputs for the least amount of money possible. Working in six different sites, the programme has been designed to achieve economies of scale with respect to developing and implementing various management programs at the six sites. GEF's Block B investment has leveraged substantial co-financing to meet the sustainable development baseline. The programme will implement numerous activities in sustainable and biodiversity-conserving practices in the productive landscape that will cost-effectively demonstrate long-term sustainability of biodiversity conservation and management in these specific areas and future protected areas in Cape Verde and elsewhere. Initiatives established under this programme are designed to be appropriate to the circumstances and abilities of the key players and therefore able to be sustained by them over the long-term. The programme will also establish cost-effective partnerships among key stakeholders, spreading responsibilities for addressing conservation needs among a range of actors. For example, programme activities will be coordinated with and complemented by existing baseline activities by various parties to improve soil and

water conservation, energy efficiency, and economic development in the project site areas. The partic ipatory approach taken by the programme should be cost effective in that it will engender stakeholder "ownership" of conservation efforts, improving the chances of successful and sustainable outcomes.

102. The programme was originally conceived of as a long-term 7 year single project. However, this option was rejected because of the reasons mentioned in paragraphs 66 to 69, in favor of a medium-term programme with two distinct projects, where each partner is able to contribute to according to its capabilities. Another option considered was to transform the project into an OP 12 (Integrated Ecosystem Management) project. This option was also rejected because the Government of Cape Verde wishes to focus primarily on promoting the new (to Cape Verde) paradigm of biodiversity conservation. Land Degradation as a secondary issue is included in so far as it contributes to biodiversity conservation.

4) INSTITUTIONAL COORDINATION AND SUPPORT

a) UNDP Country Cooperation Framework

103. The United Nations CCF for Cape Verde seeks the promotion of effective and responsible management of natural resources and the environment through: i) support of the elaboration and implementation of a National Action Plan on the Environment, ii) education and training of local communities to improve participation in the creation and management of protected areas, and iii) reinforcement of institutional capacities through technical assistance and training of government agents and civil society for a better coordination of the strategies and program regarding management of natural resources.

104. UNDP will be providing core resources as co-financing for the programme. This is estimated at $465,000 for the first project, and $305,000 for the second project. This is in addition to other in-kind contributions related to administrative facilitation, and synergies and joint activities with ongoing UNDP supported programmes.

b) Linkages to Other GEF Projects in Cape Verde

105. Related efforts include the project PNUD/GEF/CVI/97/G33 on Climate Change, which was designed to elaborate a National Strategy and Action Plan on Climate Change. This project finished in May 2002, and efforts are under way to secure financing for implementation of the National Strategy through a GEF PDF-B grant. There are no other existing GEF projects in Cape Verde. No other GEF IA is active in Cape Verde at the time of preparation of this proposal. However, the project will establish formal exchanges and linkages with at least three other similar projects in West Africa: the Senegal Integrated Ecosystem management project, the Banc d'Arguin National Park project in Mauritania (under preparation), and the Mont Nimba project in Guinea (also under preparation).

c) Linkages to Other Bilateral and Multilateral Initiatives

106. The proposed project will undertake consultations and look for opportunities for collaboration with existing projects for resource management and conservation in Cape Verde. Among these existing projects are: the European Union Natura 2000 project for marine conservation; ACDI/VOCA programs for soil and water management projects; an Austria Development Corporation for watershed management and land-use planning; a Government of China project for the construction of small dams; a Roselt project for monitoring desertification; an FAO project for agricultural extension for small-scale irrigation pilot projects; a FED project for water storage systems for irrigation and

livestock use; several Ministry of Agriculture and Ministry of Environment projects for forest management and reforestation; a joint project between BMZ and DGASP for agro-forestry and reforestation; a Ministry of Energy project for energy and water sector reform and development; a COSPE project for tourism development; a Government of Luxembourg project to promote rural tourism; and an European Union project to expand wine and food processing facilities and equipment. More detailed information on these projects is included in Annex 1.

5) RESPONSE TO REVIEWS

107. The STAP review and response to STAP review are provided in Annex 3.

108. Responses to the GEFSEC Review is provided as a Cover Note to the resubmission for Work Program Entry.

Project Document Annexes

Annex 1	Incremental Cost Analysis
Annex2	Logical Framework Matrix
Annex 3	STAP and STAP response
Annex 4	Threats and root causes
Annex 5	Baseline details
Annex 6	Project Site descriptions
Annex 7	Project maps
Annex 8	Lists of Globally Significant Flora and Fauna
Annex 9	Stakeholder Participation in Project Design and Implementation
Annex 10	Lessons learnt for effective project design
Annex 11	Project Workplan
Annex 12	Activity and Budget details
Annex 13	Project Phasing Benchmarks
Annex 14	Implementation Arrangements details
Annex 15	GEF Focal Point Endorsement Letter
Annex 16	References