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## STATUS OF LAND DEGRADATION AS A CROSS CUTTING ISSUE UNDER GEF-3

## **Executive Summary**

The third replenishment of the GEF agreed to a proposed programming level totaling US\$500 million to support land degradation prevention and control activities. Of this amount, US\$250 million was programmed as new and additional funds to the focal area land degradation (desertification and deforestation) and another US\$250 million for land degradation activities was foreseen within the reference levels agreed for the other GEF focal areas. During its meeting in May 2004, the GEF Council raised the issue of coherence among GEF activities in the GEF focal area Land Degradation (Desertification and Deforestation) and extended its request to the other GEF focal areas, in which land degradation continues to be addressed as a cross-cutting issue.

The purpose of this study was to determine as best as possible the magnitude of resources programmed for land degradation activities under the other focal areas in GEF-3. This included an analysis of their consistency and systematic contribution to combating land degradation in those focal areas and a presentation of trends in resource flows for land degradation activities since the GEF Pilot Phase.

The review is based on a total of 158 projects in the GEF-3 portfolio which were identified to have linkages to land degradation in the focal areas “Biodiversity”, the Multi-Focal Area Program “Integrated Ecosystem Management”, “International Waters” “Climate Change” and “Persistent Organic Pollutants”. The analysis was done as a desk study only. Since most of the projects are at a very early stage in the GEF cycle, the results of this review are only indicative.

The review shows that land degradation is increasingly seen and addressed as a threat to the sustainable use and/or protection of the global commons biodiversity, water and climate. The majority of projects submitted under programs, advocating an integrated approach to natural resources management (e.g. operational programs “Integrated Ecosystems Management” and “Integrated Land and Water Management”), address land degradation in a systematic way and dedicate about 30% of the GEF resources to mitigating activities. The promotion and implementation of an integrated approach to natural resources management in GEF initiatives allows to address in a comprehensive and holistic way barriers and threats to the protection and sustainable use of the global commons. Consistently, for these programs, the current demand for financial resources exceeds the resources programmed for GEF-3.

Any future resource programming within the GEF should take into account this reality. In the short term, increased resources should be considered to finance additional pilot initiatives that promote synergies among GEF focal areas based on an integrated approach to meet the high demand in GEF-3 and also in future.

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## **I. INTRODUCTION**

1. Until its designation as a specific focal area by the GEF Assembly in 2002, land degradation was addressed within the GEF as a cross cutting issue through its focal areas. According to the GEF Instrument, land degradation -- primarily deforestation and desertification -- was eligible for funding only as it related to GEF's biodiversity, climate change, and international waters focal areas: "The agreed incremental costs of activities concerning land degradation, primarily desertification and deforestation, as they relate to the four focal areas shall be eligible for funding." Recognizing the importance of land degradation to the global environment, the Second Assembly of the Global Environment Facility in Beijing, China in October 2002 agreed to make land degradation a primary focal area for GEF support. While protecting the global environment remains the overall objective of the GEF, with this designation, GEF projects may now address land degradation as its primary objective within the context of sustainable development.

## **II. RATIONALE AND OBJECTIVE.**

2. During its meeting in May 2004, the GEF Council noted the strong interest in developing activities in the area of land degradation and sustainable management as evidenced by the robust pipeline being developed for OP15. Referring to document GEF/C.23/Inf.13/Add.1, *Progress Report on Implementation of the GEF Operational Program on Sustainable Land Management*, several Council Members pointed to the need to keep under review the adequacy of resources in this area.

3. The Council also raised the issue of coherence among GEF activities in the GEF focal area "Land Degradation (Desertification and Deforestation)" in relation to a proposal for a medium sized project on capacity building for the elaboration of national reports and country profiles by African countries to the UNCCD and a project proposal in the work program on capacity building and mainstreaming of sustainable land management. The Council expanded the request for coherence also to the other GEF focal areas, in which land degradation continues to be addressed as a cross-cutting issue.

4. As part of the Second Overall Performance Report, a special study<sup>1</sup> was conducted to "identify the results and initial impact of the land degradation component of those linkage projects which link biodiversity, international waters and climate change with land degradation". A thorough analysis of the GEF Pilot Phase, GEF-1 and GEF-2 portfolios (1991-2000) was conducted. Major findings and recommendations were discussed on how effective the GEF had dealt with the issue of land degradation during this period and on how it could maximize the impact of projects in the GEF focal areas biodiversity, international waters and climate change by appropriately addressing land degradation as a threat to the global commons. One major result of the study was the recommendation to make land degradation a primary focal area of the GEF while maintaining the cross-cutting nature of land degradation in the other GEF focal areas.

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<sup>1</sup> Berry, L. and Olson, J.: GEF Land Degradation Linkage Study. Working Paper 6. GEF. 2001.

5. Donors to the GEF Trust Fund agreed to a Third Replenishment of the Trust Fund at the level of US\$3.0 billion (GEF-3). In discussing the programming of resources for GEF-3, a programming level totaling \$500 million to support land degradation prevention and control activities was proposed. Of this amount, US\$250 million was proposed as new and additional resources to the new focal area land degradation (desertification and deforestation) and US\$250 million for land degradation activities within the reference levels proposed for the other GEF focal areas.

6. Consistent with the OPS 2 land degradation study, the purpose of this study is to determine as best as possible the magnitude of resources programmed for land degradation activities under the other focal areas in GEF-3. The study also reflects on trends, the lessons learned from these resource flows and, as far as possible, on the adequacy of current GEF approaches with regards to addressing land degradation as a cross-cutting issue in order to achieve optimal impact from the GEF investments.

### **III. PROJECT ANALYSIS METHODOLOGY**

7. This analysis is based on a total of 158 projects in the GEF-3 portfolio which were identified to have linkages to land degradation – 126 in the “Biodiversity” focal area, 20 in the Multi-Focal Area Program “Integrated Ecosystem Management”, 10 in the “International Waters” focal area, one project in the “Climate Change” focal area and one project in the “Persistent Organic Pollutants” focal area. These projects entered or are expected to enter the work program or be endorsed by the CEO based on an expedited procedure between July 2002 and June 2006.

8. The analysis was done as a desk review only. Due to time constraints no verification (e.g. interviews or field visits) could be undertaken with the GEF implementing agencies. In addition, many of the analyzed projects are at a very early stage in the GEF project cycle (e.g. concept stage, PDF-A or B stage). Hence, the data and information gathered from these documents have to be considered as very preliminary and thus, indicative only.

9. The initial list of projects for the review was derived from the GEF database where a “check box” can be ticked off by the GEF program manager in case the project addresses land degradation as a cross-cutting issue. During interviews with the focal area teams, it became clear that this simple monitoring tool had not been used systematically in all focal areas. In the case of the biodiversity focal area, a full analysis of the entire portfolio had to be conducted to allow a comprehensive overview about land degradation activities in biodiversity projects.

10. In order to be consistent with the OPS 2 land degradation study and to allow the presentation of trends, the same methodology for analysis of the GEF-3 (2002-2006) portfolio was adopted for this study.

11. The OPS 2 land degradation study used data from 1991-2000, encompassing the pilot phase of the GEF (1991-1994), GEF-1 (1995-1998) and partially GEF-2 (1999-2000). Data for 2001 were not included in the analysis. Therefore, the data for the GEF-2 period are incomplete and may falsify the results of the trend analysis.

12. A qualitative analysis was undertaken for all projects. This analysis for each project was based on four sets of criteria: (a) project objective(s), (b) identified threats to the global common, (c) project components, and (d) project activities. Each of the rated criteria was then assigned a rank value between one and three, where one represents little apparent effects on land degradation and three represents strong land degradation component. Based on this analysis, projects were ranked into three categories – those with a strong land degradation component, those with potential and indirect effects on land degradation and those with little apparent land degradation effect (for criteria, see annex 1).

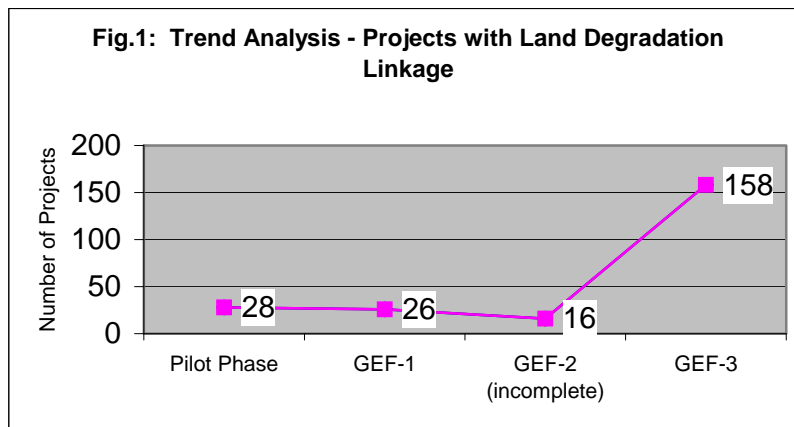
13. A quantitative analysis of 6 random samples for each category (hence, a total of 18 projects for the three categories) allowed to define first, a percentage range and second, a medium percentage value of the GEF project budget per category dedicated for land degradation activities (see annex 1). For the Climate Change and POPs portfolios, only one project each was identified to have land degradation linkages.

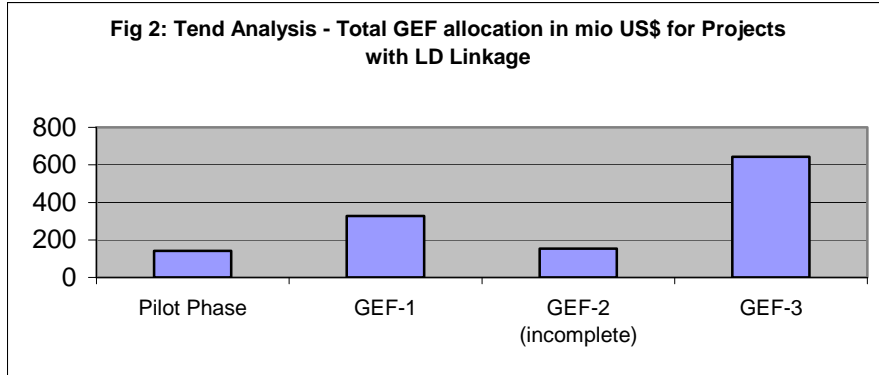
#### IV. STUDY FINDINGS

##### Trends in Allocation for LD as Cross-cutting Issue (1991- 2006)

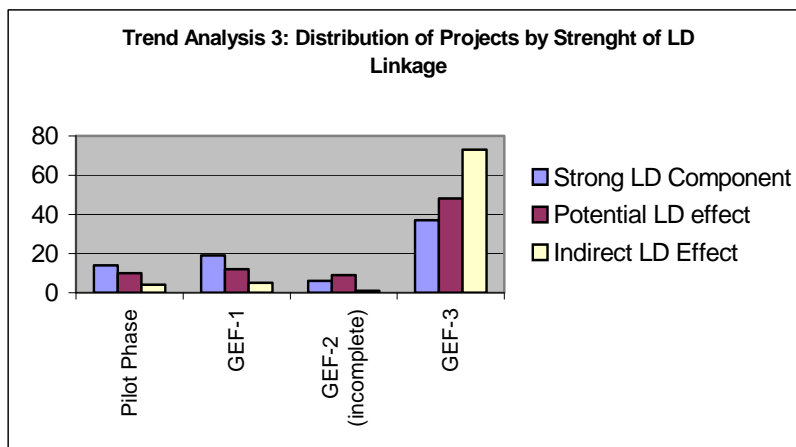
14. In accordance with the earlier OPS 2 land degradation study, the GEF in its first decade between 1991 and 2000, invested a total of about US\$624.12 million in 80 projects with linkages to land degradation as a cross cutting issue. Specific allocation to land degradation activities, however, was estimated at only US\$50 million of the entire GEF portfolio during this period (see Figure 1 and 2).

15. The analysis for GEF-3 (2002-2006) identified 158 projects with a linkage to land degradation. Total project funds amount to US\$ 643.90mio. The specific allocation for activities related to land degradation in these 158 projects is estimated at about US\$154.94mio.





16. Figure 3 shows a steep increase in number of projects addressing land degradation as a cross-cutting issue. While during the 1991-2000, the total number of projects addressing LD was about 80 (NOTE: data for 2001 not included – will modify the numbers in an upward direction), the current GEF-3 portfolio lists 158 project that define activities related to land degradation, including an total increase in all three strength categories.



### Allocation for LD as Cross-cutting Issue in GEF-3

17. 158 projects in the GEF-3 portfolio were identified with links to land degradation, of which 37 projects (23.4%) were categorized as projects with a strong LD component, 48 projects (30.4%) as projects with potential and indirect LD effects and 73 projects (46.2%) as projects with little apparent LD effect.

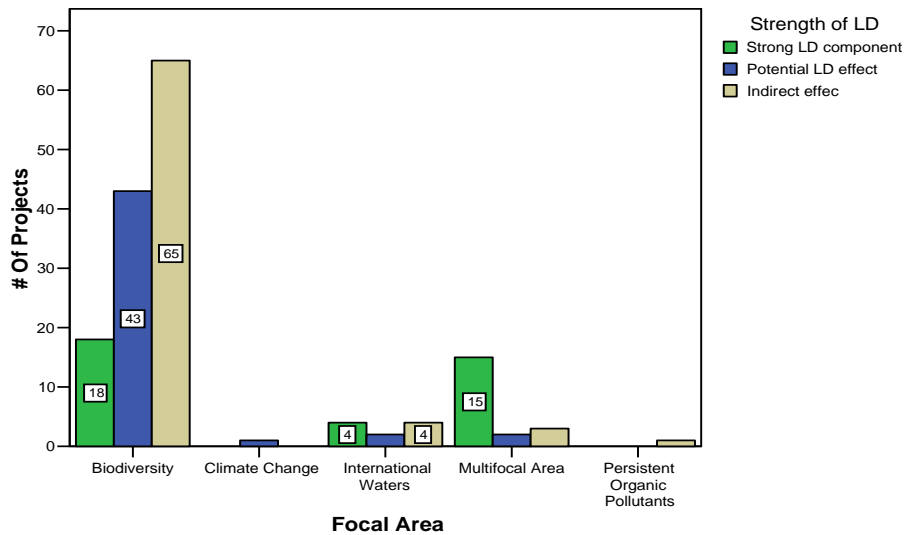
18. 32 percent of the GEF funds allocated to projects with a strong land degradation component went to prevention or rehabilitation activities while for projects with potential and indirect effects on land degradation and those with little apparent land degradation effect, the proportion was 28 percent and 12 percent respectively.

19. 38.6% of all the projects are located in Africa, 21.5% in Asia, 20.9% in Latin America and the Caribbean (LAC) and 15.2% in East and Central Europe. 3.8% of the projects have a multi-regional character. The highest amount of GEF funds, US\$70.71 million, allocated to land

degradation activities is dedicated to the Africa region, followed by US\$ 36.25 million to LAC, US\$24.00 million to Asia and US\$16.67 million to ECA.

20. Out of the 158 projects, 126 projects (79.7%) belong to the Biodiversity, 20 projects (12.7%) to the MFA/OP #12, 10 projects (6.3%) to the International Waters and 1 project each (0.6%) to the Climate Change and POPs portfolios (see Figure 4). For these activities GEF funds totaling the amount of US\$154.94mio (23.6% of the entire GEF amount allocated to these projects) are dedicated.

**Fig. 4: Strength of all Land Degradation projects according to Focal Area**



21. Table 1 shows the distribution of all 158 identified projects with land degradation linkages across focal areas and operational programs, with an indication of the GEF total contribution as well as the total amounts and percentage of GEF funds allocated for land degradation activities. The highest total number of projects with land degradation activities are in the 3 operational programs of the Biodiversity Focal Area, namely: “Arid and Semi-arid Zone Ecosystems”, “Forest Ecosystems” and “Coastal, Marine, and Freshwater Ecosystems” as well as in the MFA operational program “Integrated Ecosystem Management”. The highest percentage of GEF funds used for LD activities per project are allocated for initiatives under the operational programs “Integrated Ecosystem Management”, “Integrated Land and Water, Multiple Focal Area”, “Contaminant-Based Operational Program”, and “Biological Diversity Important to Agriculture” .



<b>Focal Area</b>	<b>Operational Program</b>	<b># of Projects</b>	<b>Total GEF Amount (\$m)</b>	<b>GEF funds for LD activities (in mio US\$)</b>	<b>% of GEF funds used for LD activities</b>
<b>Biodiversity</b>	Arid and Semi-Arid Zone Ecosystems	32	152.96	34.33	22.4
	Coastal, Marine, and Freshwater Ecosystems	31	123.25	24.11	19.6
	Forest Ecosystems	36	129.68	29.92	23.1
	Mountain Ecosystems	13	38.60	8.86	23.0
	Biological Diversity Important to Agriculture	14	50.57	12.43	24.6
<b>International Waters</b>	Water-body-based Operational Program	2	2.00	0.26	13.0
	Integrated Land and Water, Multiple Focal Area	7	66.36	19.19	28.9
	Contaminant-Based Operational Program	1	4.19	1.17	27.9
<b>Multi-Focal</b>	Integrated Ecosystem Management	20	68.81	20.17	29.3
<b>Climate Change</b>	Promoting the Adoption of Renewable Energy	1	3.50	0.98	9.38
<b>POPs</b>	Reducing and Eliminating Releases of Persistent Organic Poll	1	4.00	0.52	13.0
	<b>Total</b>	158	<b>643.90</b>	<b>151.94</b>	-

## V INTERPRETATION OF FINDINGS

22. The high number of projects under GEF-3 with linkages to land degradation shows that it is increasingly seen and addressed as a threat to the sustainable use and/or protection of the global commons (biodiversity, water, climate). This trend is corroborated by the fact that more than 20% of total GEF funds allocated to land degradation targeted prevention and rehabilitation activities (mainly in projects submitted under selected operational programs in the focal areas Biodiversity, International Waters and the Multi-focal Area/OP#12).

23. In biodiversity, projects submitted under OP.1 “Arid and Semi-arid Ecosystems” and OP. 13 “Conservation and sustainable use of biodiversity important to agriculture” created the best

opportunities for addressing root causes of land degradation. OP.13 which promotes an integrated approach through the in-situ conservation of wild relatives of important domestic crops by protecting their habitats and at the same time supporting improved livelihood opportunities for local people dedicated 24% of its GEF funding to activities related to land degradation.

24. Most of the projects submitted under the “Integrated Ecosystems Management” operational program in the Multi-focal area (75%) and under operational program “Integrated Land and Water, Multiple Focal Area” (77%) in the International Waters focal area have shown strong linkages to land degradation. Projects under these programs have dedicated almost 30% of the GEF resources to land degradation-related activities.

25. Projects submitted under the above-mentioned operational programs advocate for an integrated approach to natural resources management, thus offering the possibility to address the identified barriers to the protection and sustainable management of the global common in a comprehensive and holistic way. It represents a shift from a single sector approach to a more integrated and cross-sectoral approach to achieving global environmental benefits in the context of sustainable development.

26. Adaptation to climate change plays an important role in projects dealing with natural resources since the impact of climate change can also aggravate land degradation trends and thus its impact on the structure and functional integrity of ecosystem. The GEF recently developed new opportunities for well-designed linkage projects in this area, especially related to the strategic priority of the Climate Change focal area “Adaptation to Climate Change”.

27. Land degradation, especially desertification and deforestation, has been identified as a major threat not only to the ecosystem integrity but also the livelihoods of billion of people in Africa, Asia and Latin America. The results of the analysis with regards to the distribution of funds for land degradation activities by region confirm the appropriateness and the future need for addressing land degradation as a cross-cutting issue as well as under the land degradation focal area.

## **VI. CONCLUSION AND FUTURE DIRECTIONS**

28. Land degradation is now recognized as an important global environmental issue because of its adverse impacts on ecosystems that are critical for the survival of more than one billion people largely in developing countries as well as future generations. People are an integral part of ecosystems and they depend on interactions with ecosystem processes as the biogeochemical cycles – the carbon cycle, hydrological cycles, nutrient cycle – and the availability of ecosystem products and services for their survival.

29. Although the direct and immediate causes, nature and perception of land degradation are site specific, the effects of land degradation go beyond national and regional boundaries. Land degradation contributes to the depletion of biodiversity, directly through degradation processes, and indirectly by creating the need to expand cropping into natural forests as stated in most biodiversity project documents. Projects for sustainable land management may require water

issues to be addressed, so there are linkages with water management. Project proposals submitted under the international waters focal area clearly articulate the degradation of water resources through river and reservoir sedimentation and/or the uncontrolled use of water resources for irrigation or human consumption leading e.g. to salinization and depletion of land. Deforestation contributes more to climate change than any other form of land degradation as it results in the release carbon dioxide and the loss of sequestered carbon in biomass and soils. The key challenge is to identify the synergies and tradeoffs that exist among local, regional and global environmental issues and between short-term and long-term environmental objectives.

30. Land degradation (desertification and deforestation) is now a primary GEF focal area sharing eligibility for direct GEF funding with climate change, biodiversity, POPs and international waters. The GEF Council in GEF-3 endorsed a proposed programming level of \$US250 million in direct land degradation funds, while maintaining the importance of addressing it as a cross cutting issue through the other focal areas. It is operationalized through the operational program on “Sustainable Land Management”.

31. The “Sustainable Land Management” program is based on an integrated and landscape-based approach to natural resources management and focuses on production systems such as agriculture, livestock and forest. Responses to the development of GEF activities under this program, has been overwhelming and the four pipelines of projects received so far exceeds not only the expectations but also the proposed programming level.

32. The promotion and implementation of an integrated approach to natural resources management allows to address in a comprehensive and holistic way barriers and threats to the protection and sustainable use of those resources. Reflecting on the operational programs and strategic priorities, the GEF has developed over the years, the evolution of these modalities indicate a slow but persistent trend towards integration.

33. Operational programs, such as “Integrated Land and Water, Multiple Focal Area” 1995) or “Integrated Ecosystem Management” (developed in 1999) also advocate integration as the fundamental approach for their initiatives. The integrated approach to natural resources management in the GEF context provides an appropriate framework for synergies among focal areas and thus multiple global environmental benefits in the context of sustainable development. For these programs, the current demand for financial resources exceeds the programmed resources for GEF-3 (all resources are already fully committed or pipelined).

34. The GEF’s investments for initiatives based on integration is still small in comparison to the investments that follow a more sector-oriented approach. The GEF is currently involved in rationalizing the integrated approach to the implementation of its programs. This development, combined with the implementation of the country pilot partnerships for sustainable land management, which are in their first phase, will allow planning for and coordinating with initiatives in other focal areas at the country level under an agreed framework that is fully based on the principles of integration. Projects will systematically address priority issues identified in the country framework for sustainable land management and may necessarily involve the integration of water resources management and biodiversity conservation. The Land and Water team is currently also in the process of introducing five demonstration project on integrated land

and water management in the Upper Paraguay basin of Brazil, the Limpopo Basin in Southern Africa, the Aral Sea area of Central Asia, Kalahari-Namib Basin in Southern Africa and Bermejo Basin in South America.

35. Thus, the strong country demand for more strategic intervention that are truly based on integration and the overwhelming interest in developing concrete initiatives require that GEF seriously reconsider the level of resources available for programs and priorities that are based on integration to achieve multiple national and global benefits.

36. GEF investments in initiatives that are based on an integrated approach to natural resources management will draw upon resources available through the focal areas of Land Degradation (Desertification and Deforestation), Biodiversity, International Waters and Multi-focal Area/OP #12. Any future resource programming within the GEF should take into account this reality. In the short term increased resources are needed for additional pilot initiatives that promote synergies among GEF focal areas based on an integrated approach to meet the high demand in GEF-3 and also in future.

## **ANNEX 1. METHODOLOGY - SELECTION CRITERIA , STRENGTH RATING AND QUALITY ANALYSIS**

### **Project Selection**

The principal means used to identify a project as a project addressing land degradation as a cross cutting issue, was to find an explicit indication in that project's brief/document, or any other available project materials, that any of the threats or activities cited below (as defined by Berry and Olson 2001 and UNDP 2001) were addressed.

### **Threats**

- Soil erosion due to wind or water factors; sand dune mobilization and movement; sedimentation and siltation of riparian areas and coastal zones; soil compaction through surface crusting or deeper structural damage; declining soil fertility; and loss of soil organic matter or carbon.
- Salinization due to improperly managed irrigation practices; chemical and organic pollution of soils related to agriculture, industry, and urban activities; and GHG emissions (such as landfills, methane generation); lowering or loss of aquifer potential resulting from overuse or lack of recharge.
- Deforestation due to excessive logging, fuel wood extraction, or habitat conversion; loss of other vegetation, such as grasslands and savannas, due to overgrazing, over-harvesting, and habitat conversion; uncontrolled and excessive fires that can damage ecosystems.
- Over-harvesting of vegetation products in general, such as for medicinal use and gathering of food, which leads to ecosystem instability; over-cultivation leading to reduced fallows and regenerative ability of the ecosystem.
- Invasive species when they lead to ecosystem damage and instability.
- Overgrazing around settlements or in extensive rangelands.
- Habitat conversion in general, such as for cropland and improved pastures.
- Agricultural expansion into pastureland, thus forcing over-grazing in remaining pastures.
- Land use conflicts and curtailment of access rights, leading to destructive land uses and war.
- Land degradation when it is aggravated by droughts and desiccation.

### **Activities**

#### **A. Sustainable Land Use Practices**

- Improvement of cropping and herding practices to prevent or mitigate land degradation.
- Soil and water conservation.
- Watershed catchment management.
- Habitat restoration.
- Integrated land use planning including land zonation protected areas and buffer zones.

## **B. Forestry/Trees Related Activities**

- Sustainable use of biomass for energy , sustainable forest harvesting and fuel wood use conservation practices, and fire control measures.
- Regeneration of forestry and grasslands, including tree planting by communities for biodiversity conservation, watershed management for carbon sequestration.

## **C. Project Approaches**

- Generation of alternative livelihood income and community participation activities.
- Land degradation capacity building efforts and mobilization of resources to address land degradation.
- Information collection, such as land cover or land degradation variables.
- Target research and indigenous knowledge for mitigating land degradation as cross cutting theme.
- Activities that address the underlying causes of degradation and policies that reduce land tenure insecurities.

## **D. Environmental Quality Issues**

- Reducing dust in the atmosphere.
- Promoting carbon sequestration in soils.

## **DETERMINATION OF LAND DEGRADATION COMPONENT STRENGTH**

To identify the strength of the land degradation components in projects, the following operational classification (as defined by Berry and Olson) was used, resulting in the following categorization:

- **Strong LD component.** Projects with proactive land rehabilitation components (*e.g.*, range land rehabilitation, such as seeding and tree planting) or proactive components to ameliorate current land management (*e.g.*, improved cropping or grazing practices, fire use, land use planning).
- **Potential LD effects.** Projects whose interventions will potentially prevent land degradation. These are projects with few proactive interventions but whose activities will restrict future degradation through activities such as reducing land use intensity or improving land management in- or outside protected areas.
- **Indirect effects on LD.** These projects lack a land management component but will have few activities that have indirect effects on the land, for example, through reducing fuelwood collection from natural areas.

## **QUALITY ANALYSIS**

The quality analysis is based on four sets of criteria: (a) objectives, (b) threats, (c) components, and (d) activities. Each of the rated criteria was then assigned a rank value between one and three, where one represents indirect effect on land degradation and three represents strong land degradation component.

To assign the ranking, the three interrelated types of interventions were examined and assessed, including (1) on-the ground activities to prevent and /or remedy land degradation including sustainable agriculture, sustainable rangeland management, and sustainable forest management activities; (2) capacity building including strengthening of public policy and enabling environment for addressing land degradation; and (3) target research aimed at providing knowledge and tools for sustainable land management. The matrix below was then used to rate the significance of each project in addressing land degradation.

Table 1: Rating Matrix

Rate	Objective	Threats	Components	Activities	Rank
Indirect LD effect (X)	X	X	X	X	Rank (1)
Potential LD effect (XX )	XX	XX	XX	XX	Rank (2)
Strong LD component (XXX)	XXX	XXX	XXX	XXX	Rank (3)

Annex 2-6 provide a list of the projects for each focal area that have a strong land degradation component, in addition to project's country, region, objectives, threats and components.

## QUANTITATIVE ANALYSIS

A quantitative analysis was conducted on eighteen projects to determine the portion of GEF funds allocated for land degradation activities. These projects were chosen randomly from the list of the approved projects in each operational program in each rated category (strong, potential, and indirect). The budget section in the project approval document was examined to calculate the portion of GEF money used for land degradation activities. The percentage of GEF amount used for land degradation with respect to the total GEF amount was calculated for each project. An average percent for each rated class was then calculated to arrive at the percentage of GEF funds used for land degradation in each category, as follows: Strong project, 32 percent; potential effect project, 28 percent; and indirect effect project, 12 percent. These percentages were then used to calculate the amount of money used per project and the total allocated for GEF3 for land degradation as a cross cutting issue.

## ANNEX 2. LAND DEGRADATION AS A STRONG CROSS-CUTTING ISSUE IN APPROVED BIODIVERSITY PROJECTS

Country	Project Title	Objective	LD Threat	LD Component	LD Activities	Rate
Cameroon [AFR]	Forestry and Environmental Sector Adjustment Credit (FESAC)	The project objective is to strengthen public and private efforts to achieve socio-economically and ecologically sustainable use of national forest and wildlife resources.	Temporal occupation - land invasion; bush fires; forest exploitation, agribusiness and infra-structure development in peripheral zones	Management of production forests; management of community forests; institutional strengthening; training & research	Revenue generating tree planting schemes; identification of carbon finance partners; development of incentives to engage the local communities in the reforestation effort; community-based fuelwood cooperatives and fuelwood markets; rehabilitating education and research in forestry and environment sector	Strong
Nepal [Asia]	Landscape Level Biodiversity Conservation in Nepal's Western Terai Complex	The project objective is to establish effective management systems and build capacity for the conservation and sustainable use of Nepal's Western Terai landscape complex (including two protected areas, Royal Bardia National Park and Royal Suklaphanta Wildlife Reserve).	High grazing pressures in the forests; agricultural encroachment in forestlands; replacement of traditional crop varieties and landraces with modern cultivars	Empower local communities to practice sustainable, biodiversity-friendly natural resource and land use management and pursue diversified livelihoods	Amend and/or establish legislation to facilitate land use planning in the WTLC; inclusion of cultivation/management of native varieties; ensure long-term prevention of re-encroachment into forestlands; formulate and pilot integrated management plan integrating; training and pilot demonstrations for local grazing user groups in sustainable livestock management; demonstrations in sustainable and biodiversity-friendly community forest management	Strong
Guinea [AFR]	Conservation of the Biodiversity of the Nimba Mountains through Integrated and Participatory Management	The objectives of the project are to: i) to enhance mainstreaming of biodiversity conservation into local and national level sustainable development planning; ii) contribute to the development of a national system of protected areas	Deforestation; rapid expansion and degradation of arable land, decline in soil fertility and topsoil loss due to reduced fallow periods; violent floods	Sustainable land use and agricultural revenues of local people increased on the basis of more productive practices; local needs for animal protein and non-timber forest products more fully met using practices that do not damage wildlife and forests	Develop capacity for land use planning; develop understanding of land tenure constraints; support improvement in conservation methods (soil conservation, fertilizer); develop management skills for animal husbandry; raising awareness of the principles of sustainable management	Strong



Country	Project Title	Objective	LD Threat	LD Component	LD Activities	Rate
Mali [AFR]	Biodiversity Conservation and Participatory Sustainable Management of Natural Resources in the Inner Niger Delta and its Transition Areas, Mopti Region	The project objectives are: i) to promote the positive effects and mitigate the negative impacts of agricultural practices on biological diversity in agro-ecosystems and their interface with other ecosystems; ii) to promote the conservation and sustainable use of genetic resources of actual or potential value for food and agriculture; iii) to prevent deforestation and promote sustainable use and sustainable management of forests or forested areas in order to conserve their biodiversity; to prevent and control land degradation through development of sustainable use methods for biodiversity conservation, including the management of freshwater systems.	Loss of vegetative cover; wind and water erosion; loss of soil fertility and a loss of arable land; uncontrolled use of fertilizers and pesticides; vegetative cover degradation; droughts; disruption of customary rights and traditional land tenure systems	Strengthening capacity of local actors/information - education - communication; support to local development through micro-projects (community); support to natural resources management	Restoration and development of the agro-sylvo-pastoral and fisheries potential through integrated natural resources management and biodiversity conservation; promotion and development of alternative sources of income; designing a strategy for establishment of the GIS database and unified system; productive environmental projects, including stabilization of river banks, silt removal from feeder channels of ponds and lakes; management of ponds and forests; regeneration of "bourgoutier"	Strong
Vietnam [Asia]	Forest Sector Development Project	The objective of the project is to achieve sustainable management of (plantation) forests and the conservation of biodiversity in special use forests to achieve improved livelihood of people in forest dependent areas; enhanced contribution of forestry to the national economy; and environmental protection.	Deforestation	Smallholder plantation forest; institutional development for sustainable forest management	Land allocation and land use right certificate (LUC) issuance; extension and services delivery to assist the smallholders in all aspects of plantation forestry; plantation design and management; plantation investments in the form of credits to eligible households	Strong
Paraguay [LAC]	Biodiversity Conservation and Sustainable Use in the Mbaracayu Natural Reserve	The project objective is to conserve globally significant biodiversity in the highly threatened Interior Atlantic Forest of Paraguay by supporting the effective protection and consolidation of the Mbaracayú Natural Reserve and promoting conservation, sustainable use, and land-use planning in the Upper Jejuí River Watershed.	Unsustainable practices in the watershed including slash and burn practices; deforestation and pasture conversion; soil erosion; fertility loss; river siltation	Integrated land use planning and development for the whole CARJ	Explore and develop alternative livelihood options; reforestation of the CARJ; development of land-use planning activities	Strong

Country	Project Title	Objective	LD Threat	LD Component	LD Activities	Rate
Uruguay [LAC]	Integrated Natural Resources and Biodiversity Management	The objective of the project is to promote the adoption of integrated production systems in agricultural and livestock landscapes to increase productivity within a context of holistic ecosystem and natural resources management while conserving soils, water, grasslands, and biodiversity.	Soil erosion; invasion of exotic species; soil compaction; heavy loss of native forests	Natural resources and biodiversity management	Project on carbon balance; GIS database; sustainable management of timber and non-timber products; reforestation and restoration of native forests; silvo-pastoral initiatives regeneration of natural grasses and other vegetation	Strong
Regional (Mozambique, Zambia, Zimbabwe) [AFR]	Integrated Management of Dryland Biodiversity through Land Rehabilitation in the Arid and Semi-Arid Regions of Mozambique, Zambia and Zimbabwe	The goal of the project is to conserve globally significant ecosystems and arid-land adapted plants and animals inhabiting the transboundary drylands between the three countries.	Deforestation; habitat destruction; soil degradation; illegal and excessive logging; pollution of rivers; water scarcity; inappropriate land use and the breakdown of community-resource management	Land rehabilitation; conservation; sustainable use and equitable sharing of benefits accruing from biodiversity; regional and transboundary resource management	Integrated land use planning and community-based wildlife management plans; efficient energy use and enhanced biomass production; community-based and managed land use; assessment of the degree and extent of rangeland degradation in the transboundary ecosystems; harmonize policies and legislation and develop strategies for managing the transboundary natural resources; land rehabilitation; sustainable management systems for drylands; policy and legislation promoting dryland management; transboundary management of drylands; information and technology exchange	Strong
Mongolia [Asia]	Developing a Model Conservation Programme-Conservation of the Gobi Desert Using Wild Bactrian Camels as an "Umbrella Species".	The project objectives are i) Strengthen the management of the Great Gobi SPA; ii) Improve the stewardship of the buffer zone areas; iii) Develop and implement targeted responses for the cross-cutting issues of overgrazing and range deterioration; over-collection of Saxual bushes and downy poplars; declining water resources.	Habitat loss and degradation along the buffer-zone; over-grazing; over-collection of trees and shrubs for fuel wood; wind erosion; reduced nutrient content of soil	Develop and implement targeted responses for the cross-cutting issues of overgrazing and range deterioration; over-collection of Saxual bushes and downy poplars; declining water resources	Community based livestock grazing management; map of traditional grazing patterns prepared; community based fuel resource management; improved fuel management demonstrated in pilot sites; suitable alternatives to fuel wood use explored and developed; comprehensive water use and management plan; training program in modern techniques of ecosystem management	Strong

Country	Project Title	Objective	LD Threat	LD Component	LD Activities	Rate
Pakistan [Asia]	Conservation of habitats and species of global significance in Arid and Semi-arid Ecosystems in Balochistan	The Project Objective is to promote conservation and sustainable use of globally significant habitats and species in the Torghar and Chagai Conservancies.	Degradation of buffer zones; overexploitation of natural resources; wind erosion	Improvement of livelihoods of local people through better agro-pastoral practices and development of sustainable resource use alternatives	Sustainable land use demonstration in Chagai Conservancy; improvements in livestock and range management practices; development of sustainable agriculture production; surveillance to check grazing, fuel wood cutting and poaching; restoration of degraded habitats; development of sustainable agriculture production	Strong
Madagascar [AFR]	Third Environment Programme	The objective of the project is: setting natural resources management and biodiversity protection in critical ecological regions on an effective and sustainable footing with active participation from local populations and other relevant stakeholders, while at the same time incorporating environmental dimensions in public policy making and investment decisions.	Agricultural expansion through forest conversion under slash-and burn production systems; soil erosion; use of charcoal and fuelwood for domestic energy purposes	Forest ecosystems management; environmental mainstreaming	Reforestation; domestic energy; forest zoning; forest exploitation arrangements; forest control activities; support to tavy and bush fire control; transfer the management of 1 million ha of forest to local communes; household energy carbonization program; environmental information, education and communication; environmental legislation, policy-making and regulations	Strong
Bulgaria [ECA]	Forest Development Project	The Project objective is to increase the contribution of forests to the national economy and to the benefit of rural populations through sustainable management of state, private and communal forests.	Extensive fires damage	Strengthen public forest sector management; strengthening capacity of non-state forest owners; supporting state forest management transition to market economy	Modern national database and information system; address illegal logging; reforestation; rehabilitation of burned and degraded land	Strong

### ANNEX 3. LAND DEGRADATION AS STRONG CROSS-CUTTING ISSUES IN BIODIVERSITY PROJECTS IN PREPARATION

Country	Project Title	Objectives	LD Threat	LD Component	LD Activities	Rate
China [Asia]	Sanjiang Plain Wetlands Protection Project	The project goal is to assist the Government of China and the Heilongjiang Province to establish mechanisms for restoring and protecting biodiversity and natural resources at the watershed scale while integrating the needs of all key stakeholders. Project objectives are 1) Enhancement flood mitigation role of the wetland, and 2) Conservation of the globally unique environment and biodiversity of Sanjiang plain (The Sanjiang Plain 1 comprises 108,900 square kilometers).	Hydrology changes and desiccation; natural habitat conversion to farmland; sedimentation; water resource exploitation; deforestation; unsustainable cultivation of hillsides; soil erosion	Watershed management; alternative livelihoods	Rehabilitating and protecting degraded forests; restoring and protecting wetlands nature reserves; watershed level water resource planning; agro-forestry and nontimber forest product interventions; alternative livelihoods to farmers; strengthening the capacities of the local agencies in charge of watershed wetland and nature reserves management; reforestation; revert back 4,500 hectares of low-quality agricultural land to legally required forestland; 5,500 hectares of wasteland reverted into high-yield forest plantations	Strong
Chile [LAC]	Conservation of Biodiversity in the Valdivian Temperate Rain Forest Ecoregion	The objective of the project is to design and implement a Biodiversity Conservation Plan for the Valdivian Temperate Rain Forest Ecoregion of Chile, involving the implementation of an in situ conservation system, with three types of in situ conservation instruments: core conservation zones, buffer zones for conservation and sustainable use, and biological corridors to connect these areas.	Habitat loss and fragmentation; firewood collection; unsustainable logging; forest fires; invasive species; unsustainable agricultural and livestock practices	N/A	Development of a new legal framework and the institutional structure for sustainable use of native forests; establishment of core zones for strict conservation; establishment of sustainable-use corridors; conservation-compatible land use demonstrations; invasive species program; strengthening the design of the current forest fire prevention and response plans	Strong

Country	Project Title	Objectives	LD Threat	LD Component	LD Activities	Rate
Global [CEX]	Land Degradation Assessment in Drylands (LADA)	The objectives of LADA project are two-fold. First, to develop and implement strategies, tools and methods to assess and quantify the nature, extent and severity of land degradation and the overall ecosystem resilience of dryland ecosystems at a range of spatial and temporal scales. The assessment will integrate biophysical factors and socio-economic driving forces. Second, the project will build national, regional and global assessment capacities to enable the design and planning of interventions to mitigate land degradation and establish sustainable land use and management practices.	Land degradation in Africa's desert margins	Biodiversity conservation and sustainable use; sub-regional, national and local capacity building; alternative livelihoods; policy and legal framework; extension of sustainable natural resource management; stakeholder participation	Promote integrated soil fertility and water management methods; promote land development methods and holistic management strategies of pastoral spaces and peripheral zones of wildlife reserve; promote the integration of vegetal species with multiple purpose in the lands use systems; inform partners of the causes of ecosystems degradation; empower communities to develop and manage livelihood options sustainably; facilitate establishment of best-bet livelihood options; review and document existing policies on natural resources management; identify flaws and harmonize conflicting policies	Strong
Regional (Kenya, Tanzania) [AFR]	Conservation of Dryland Biodiversity in the Amboseli - Monduli Cross-border Site in Kenya and Tanzania	The overall goal of the project is to restore and maintain the biodiversity of an arid ecosystem site in East Africa by developing stronger compatible community-based resource management strategies and pastoralist livestock strategies that reduce land degradation pressures and provide sustainable livelihoods. The project aims to promote technologies and methods within integrated resource management framework to combat land and water degradation including rehabilitation of degraded pastoral lands.	Increased pressure on pastoralism processes through land privatization and cultivation; removal of woodland vegetation for charcoal and wood-fuel; overuse of resources around water points; soil erosion and local gulleys	Development of land use plans and tenure systems; linking land-use practice to participatory monitoring and evaluation of land and resource "health" with management feed-back processes	Strengthening land use planning and using stronger incentives for conservation; diversification of livelihoods through indigenous alternative livelihood; improved pastoralist production and promoting efficient use of energy resources including sustainable fuelwood extraction; developing improved land-and water use practices; seeking cost-effective means to rehabilitate degraded resource systems and sustainable use of range resources; improving pastoralist based land management to avoid degradation of pastures around water sites	Strong

Country	Project Title	Objectives	LD Threat	LD Component	LD Activities	Rate
Regional (Guinea, Nigeria, Sierra Leone, Niger) [AFR]	Enhancing Conservation and Rational Utilization of Medicinal, Aromatic and Pesticidal Plants through Sustainable Land Management	The project objective is to promote the positive impacts and mitigate the negative impacts of agricultural systems and practices on biological diversity in agro-ecosystems and their interface with other ecosystems. More specifically it will lead to the sustainable utilization and conservation of MAP plants and their natural habitats in the production landscape in transboundary Guinean, Sudanian and Sahelian ecosystems in West Africa and the enhanced capacity to use information to support MAP plants conservation and sustainable utilization.	Unsustainable agricultural practices; desertification; drought; overgrazing; deforestation; over-harvesting for fuelwood; population increases and migration; uncontrolled brush fires; increased emission of carbon dioxide and reduced carbon sequestration; degradation of watershed function; including destabilization of sediment storage and release	Strengthening institutional capacities and national policies; regulatory and economic incentives frameworks for sustainable management; conservation and utilization of indigenous MAP plant resources; pilot demonstration unique to each transboundary agro-ecosystem to promote sustainable land management and community-based conservation of MAP plants; resource utilization and reforestation programs	Strengthen participatory institutional mechanisms and capacity for integrated land use planning and implementation with regard to utilization of MAP plants; Manage sustainably agricultural biodiversity, especially MAP Plants; adoption of indigenous multiple use MAP plant/tree species to rehabilitate degraded areas; research programme is to help clarify the role of MAP plants; soil enrichment for biodiversity; and the diversification of crops in rural agricultural areas	Strong
Regional (Kenya, Burkina Faso) [AFR]	Dryland Livestock Wildlife Environment Interface Project (DLWEIP)	The overall objectives of the project are: (1) To develop approaches and options to stabilize livestock/wildlife populations for sustainable livelihoods, biodiversity conservation and reduced land degradation and ; (2) To enhance capacity for management at the livestock-wildlife interface for economics and/or food security in Africa.	Degradation of natural resources (loss of vegetative cover, reduction of soil fertility and soil erosion); unsustainable land use systems	Improved land management and sustainable utilization of wildlife and livestock resources at the interface; guidelines for management and database created at the livestock-wildlife interface	Identify and follow-up on areas with sustainable land management at the interface and minimal land degradation around protected areas through reduced conflict and maximizing benefits from the mixed system; establish a database on the status of non-sustainable wildlife and natural resource utilization in dryland ecosystem; enhanced capacity for local communities and African focal institutions in management at the interface; evaluate utilization of grazing resources around concentration zones in dry season areas while minimizing land degradation	Strong

#### ANNEX 4. LAND DEGRADATION AS STRONG CROSS-CUTTING ISSUE IN MULTIFOCAL AREA PROJECTS

Country	Project Title	Objective	LD Threats	LD Components	LD Activities	Rate
China [Asia]	PRC/GEF Partnership on Land Degradation in Dryland Ecosystems: Project I- Capacity Building to Combat Land Degradation	The project objective is to assist the government in combating land degradation, reducing poverty and restoring dryland ecosystems through strengthening the enabling environment, and developing institutional capacity.	Habitat loss; desertification; forest and woodland clearance; vegetation degradation; dust storms; large-scale mechanized farming	Enabling conditions to support sustainable land management in dryland ecosystems; operational arrangements for implementation of integrated natural resource management; land degradation monitoring and evaluation; demonstration projects	Developing procedures and mechanisms to improve law and policy quality and implement integrated ecosystem management; building capacity in legislative and policy aspects; formulating land degradation strategies at the province or region level; assessing the economic costs and benefits of land degradation control through field studies in selected areas; implementing a feasibility study examining the establishment of integrated ecosystem management training on a permanent basis	Strong
Peru [LAC]	Integrated Ecosystem Management in the Cotahuasi Basin	The objective of the project is to catalyze the adoption of comprehensive ecosystem management interventions that integrate ecological, economic, and social goals to achieve the conservation and sustainable use of globally significant biodiversity and land and water resources of the Cotahuasi River Basin.	Erosion and desertification on agricultural and pasture lands	Integrated ecosystem management system; alternative livelihoods based on sustainable natural resource use; training and education	Ecosystem restoration zones; participatory development of strategies; demonstration projects in organic agriculture; dissemination of innovative technologies for land rehabilitation; demonstrating community-based land degradation control in a minimum of three selected areas; examine the impact of past land degradation investments	Strong
Burkina Faso [AFR]	Sahel Integrated Lowland Ecosystem Management (SILEM), Phase I	The project objectives are (a) build capacity for sound integrated ecosystem management; (b) reduce and reverse land degradation and desertification; (c) better conserve agro-biodiversity; (d) increase carbon storage capacity and reduce greenhouse gas emissions; (e) reduce and reverse the deterioration of international waters.	Land degradation; desertification; fragmentation and loss of natural habitat; loss of carbon storage capacity; uncontrolled expansion of cropping practice	Local capacity building; institutional capacity building for integrated ecosystem management; local investment fund for sub-projects; building partnerships	Land/water use planning; watershed management plans; GIS mapping; rehabilitation of lowland sacred forest; promoting zero-tillage and conservation agriculture; agro-sylvo-pastoral management practices; land tenure security policy; a universally agreed definition of land degradation	Strong
Kazakhstan [ECA]	Drylands Management Project	The project objectives are: (i) improved knowledge on quantification and monitoring of carbon sequestration under different land use types; (ii) increased carbon sequestration for climate change mitigation, (iii) improved biodiversity; and (iv) control of land degradation.	Desertification; degradation of the natural resource base; reduced carbon sequestration	Development of sustainable land use systems; quantification of carbon sequestration; initial service support to producer groups; public awareness and replication strategy	Revegetation of abandoned cereal lands, develop maps of soil and vegetation cover to develop land cover classification; define the physiological and ecological parameters of vegetation for carbon sequestration	Strong

Country	Project Title	Objective	LD Threats	LD Components	LD Activities	Rate
Niger [AFR]	Community-based Integrated Ecosystem Management Program under the Community Action Program	The project objectives are to: support sustainable local development; combat land degradation and desertification; increase carbon sequestration capacity of dryland ecosystems.	Desertification; degradation of the natural resource base	Community support; local governance support; local investment fund	Soil fertility control; erosion control; tree plantings and nurseries; introduction of valuable native species of the natural rangelands within the cropping systems; community awareness raising	Strong
Zambia [AFR]	Sustainable Land Management in the Zambian Miombo Woodland Ecosystem	The goals of the project are: (i) a reduction of carbon emissions from unsustainable slash-and-burn agricultural practices in the Miombo woodlands; (ii) the conservation of globally significant biodiversity; and (iii) improvement of the food security of the local population.	Rapid degradation of forest cover and soil fertility	Promotion of sustainable land management in Mkushi and Serenje districts; scaling-up of the sustainable land management approach to other areas in Zambia; supporting studies; capacity building	Assessment of sustainable farming techniques; targeted research; sustainable land management workshop; conservation farming	Strong
Regional [REG]	Development and Integration of the Environmental Component in the Partnership for Africa Renewal Programme	The objective of the project is to assist African countries to prepare and adopt an Environmental Programme for the first decade of the Millennium as an integral part of the Millennium African Renaissance Programme/Partnership for African Renewal.	Desertification; water resource degradation; climate change	Consolidation of root cause analyses and drafting of environment program; development of program of interventions	Analysis of the root causes of the environmental challenges facing Africa in the area of integrated land and water management; elaborate an integrated ecosystem and resource management program for Africa Land and Water Initiative; prepare the elements for a renewal energy partnership for Africa; develop the science and technology capacity building framework	Strong
Kenya [AFR]	Western Kenya Integrated Ecosystem Management Project	The project objective is to enhance the potential to sequester additional above- and below-ground carbon in the project area, and develop scientifically sound and cost effective procedures and protocols to measure, monitor and validate above- and below-ground carbon sinks in different land-use systems. The project will also promote agroforestry and other improved land management activities in upland areas to rehabilitate degraded lands, improve erosion and sediment control, and reduce nutrient delivery to Lake Victoria from agricultural activities.	Sedimentation; overgrazing; tree removal for local fuelwood use	Capacity building for community driven Integrated Ecosystem Management; scaling up and financing IEM interventions	Transfer of technical knowledge; capacity building for piloting carbon financing mechanisms; erosion control; community-based sub-projects; village nurseries to support agro-forestry; closing of networks of gullies; protection of river banks	Strong



Country	Project Title	Objective	LD Threats	LD Components	LD Activities	Rate
Brazil [LAC]	Rio de Janeiro Integrated Ecosystem Management in Production Landscapes of the North-Northwestern Fluminense	The national objective of the proposed project is to increase and sustain smallholder agricultural production, productivity and farm incomes and assist in the sustainable use of natural resources, by promoting the adoption of sustainable land and water management, at the micro catchments level, with full involvement of the farming community. The global objectives are threefold: (i) to address threats to biodiversity of global importance, (ii) enhance carbon sequestration in the agricultural landscape, and (iii) reverse land degradation in public and/or fragile lands.	Deforestation for logging and charcoal production; loss of soil fertility; soil erosion; agriculture expansion	Planning of SLM actions; incentive system for SLM; organization and capacity building for SLM	Development of strategies for sustainable landscape; inclusion of global issues in natural resource process; education and community participation; establish program for SLM; target research to SLM	Strong
Namibia [AFR]	Integrated Ecosystem Management in Namibia  through the National Conservancy Network	The project objective is to conserve, manage and utilize the globally important vast and diverse but fragile biological diversity found within Namibia for improved rural and sustainable economic development, through participatory, integrated and innovative management approaches.	Soil erosion; desertification; habitat conversion and loss by competing; unsustainable use of water resources; climate change on dryland	Ecosystem-based income-generating activities; sustainable ecosystem management; targeted institutional support	Training and mentoring to strengthen capacity of local stakeholders; CBIEM implementation and investments in land degradation restoration and rehabilitation; CBNRM policy dialogue drafting and dissemination in particular forestry; CBNRM organizational review	Strong
Kenya [AFR]	Mount Kenya Pilot Project for Land and Water Management	The project objective is to contribute to poverty reduction by more effective use of natural resources and improvement of agricultural activities. An intermediate objective is enhancing the equitable use of these resources with particular focus on environmental conservation.	Deforestation; poor water management; soil erosion; encroachment on riparian and marginal lands	Environmental conservation; rural livelihoods; strengthening local governance	Soil and water conservation measures; participatory forest management plans; roadside erosion control; introduction of fuel saving technologies; on farm soil and water conservation; formulation of community afforestation trust fund	Strong
Chad [AFR]	Community Based Integrated Ecosystem Management Project Under PROADEL	The objective of project is to better enable local communities throughout Chad to combat desertification, preserve biodiversity, and maintain the productivity of natural assets within fragile, yet globally-significant ecosystems, as a result of the introduction of community-driven, integrated environmental management principles and planning.	Desertification; deforestation; soil and water quality deterioration; soil carbon storage capacity reduction; soil fertility loss	Financial support for local development subprojects; capacity building for local communities; support for decentralization; management and information support	Reforestation and rehabilitation of gallery forests; development of grazing corridors; agro-forestry techniques to increase soil fertility; pilot activities to demonstrate or disseminate more sustainable alternative energy; development of local drought management plans and bushfire awareness programs; address land tenure and security issues; creation of a national Geographic Information System (GIS) and database	Strong

Country	Project Title	Objective	LD Threats	LD Components	LD Activities	Rate
Tajikistan [ECA]	Community Agriculture and Watershed Management	The objective of the project is to help reduce rural poverty and improve livelihoods of rural communities in selected watersheds by supporting productive activities and preservation of fragile mountain lands and ecosystems.	Erosion; changes in tree cover; cultivation of sloping land; changes in grazing; loss of top soil	Rural production investments; institutional support and capacity building	Land resource management; contour planting of trees; establishment of poplar, willow, or other fast growing woodlots; development of pasture lands; support to research and demonstration; development of scientific methods for soil conservation practices; development of seeds and seedlings for horticultural crops and fruit trees suitable for the project watersheds; master training and advisory program for mountain areas	Strong

## ANNEX 5. LAND DEGRADATION AS STRONG CROSS-CUTTING ISSUE IN INTERNATIONAL WATERS PROJECTS

Country	Project Title	Objective	LD Threats	LD Components	LD Activities	Rate
Regional (Burundi, Congo DR, Tanzania, Zambia) [AFR]	Developing Detailed Regional and National Project Proposals and Financial Mechanisms to Implement the Lake Tanganyika Strategic Action Programme and the Convention	Engage the participating countries in concerted action toward finalization and ratification of the draft convention on sustainable management of the Lake, and address the priority issues described in the SAP and the TDA.	Excessive loads of sediment and nutrients caused by erosion in the watershed; erosion from agriculture	Introduce actions to promote sustainable agricultural practices; undertake specific measures to counteract deforestation	Identification of sensitive erosion zones; regulation of soil use; promote soil conservation measures; education and awareness; inventory of forests and damages; promotion of wood and agro forestry; promote afforestation	Strong
Regional (Benin, Guinea, Mali, Nigeria, Burkina Faso, Cameroon, Chad, Cote d'Ivoire, Niger) [AFR]	Reversing Land and Water Degradation Trends in the Niger River Basin	The development objective of the project is to realize the multiple global environmental benefits of sustainable development and integrated management of land and water resources of the basin.	Bush clearing; overgrazing; fertility loss; poor drainage systems and utilization of zones close to the river causing extensive land and water degradation	Capacity building; land and water issues to reverse land and water degradation of the Niger	Community driven pilot project; education and training; data collection; preliminary investments	Strong
Regional (Benin, Burkina Faso, Cote d'Ivoire, Ghana, Mali, Togo) [AFR]	Addressing Transboundary Concerns in the Volta River Basin and its Downstream Coastal Area	The project objective is to enhance the ability of the countries to plan and manage the Volta catchment areas within their territories and aquatic resources and ecosystems on a sustainable basis.	Soil degradation; intense erosion; desertification; bush fires; deforestation; devegetation	Investment actions; legislative/regulatory actions; institutional strengthening and development; capacity building actions	Increase awareness of local populations of the desertification process; sewage treatment demonstration project; develop and enforce land use codes for agriculture and animal husbandry; establish legislation to reduce rates of deforestation based on economic incentives and disincentives	Strong
Regional (Antigua and Barbuda, Bahamas, Barbados, Cuba, Dominica, Dominican Republic, Grenada, Haiti, Jamaica, St. Lucia, St. Kitts and Nevis, St. Vincent and Grenadines, Trinidad and Tobago)	Integrating Watershed and Coastal Area Management in Small Island Developing States of the Caribbean	The objective of the project is to assist participating countries in improving their watershed and coastal zone management practices in support of sustainable development.	Sedimentation caused by soil erosion; over-utilization of chemicals for agriculture; inappropriate land use; aquifer degradation; deforestation; overgrazing	Protection of water supplies; land based sources of pollution; climate change; capacity building; policy reform	Land use planning; soil degradation and watershed management; waste management; pilot activities addressing information, management, policy and economic failures	Strong