Global Environment Facility

GEF/IS/15
June 12, 2006

# INTERSESSIONAL WORK PROGRAM
# SUBMITTED FOR COUNCIL APPROVAL

**Executive Summary**

The CEO proposes to the Council the approval of this work program containing 70 full-sized project (FSP) proposals requesting a total GEF allocation of $498.999 million.

Total co-financing amounts to $2,843.435 million which, when added to the total GEF allocation gives a total project value of $3,342.434 million.

The proposed work program includes 70 project proposals that were initially submitted as part of a work program of 76 proposals for consideration at the June 2006 Council Meeting. Council agreed to approve 6 proposals, and requested the Secretariat to submit the remaining 70 proposals as an intersessional work program for decision by mail.

Council Members are invited to review the proposed work program and to submit their comments to the GEF Secretariat by July 24, 2006.

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Where to send technical comments:
*Council members are urged to send their technical comments electronically (in Word file) to the GEF Secretariat's program coordination registry at: gcoordination@TheGEF.org*

## I. PROJECTS IN THE PROPOSED WORK PROGRAM[1]

### Biodiversity

1. **Global (Cote d'lvoire, Ghana, Indonesia, Malaysia):** Biodiversity and Agricultural Commodities Program (BACP) (World Bank/IFC) (GEF Grant : $7.00 m)
2. **Global :** Building the Partnership to Track Progress at the Global Level in Achieving the 2010 Biodiversity Target (Phase I) (UNEP) (GEF Grant : $3.64 m)
3. **Global (China, Ecuador, Morocco, Uganda) :** Conservation and Use of Crop Genetic Diversity to Control Pests and Diseases in Support of Sustainable Agriculture (UNEP) (GEF Grant : $3.41 m)
4. **Global :** Critical Ecosystem Partnership Fund, Phase II (World Bank) (GEF Grant : $20.00 m)
5. **Global :** Institutionalizing Payments for Ecosystem Services (UNDP) (GEF Grant : $5.69 m)
6. **Argentina :** Sustainable Forestry Development Project (World Bank) (GEF Grant : $7.00 m)
7. **Bosnia-Herzegovina :** Forest and Mountain Protected Areas Project (World Bank) (GEF Grant : $3.40 m)
8. **Botswana :** Wildlife Conflict Management and Biodiversity Conservation for Improved Rural Livelihoods (World Bank) (GEF Grant : $5.50 m)
9. **China :** Guangxi Integrated Forestry Development and Biodiversity Conservation (World Bank) (GEF Grant : $5.25 m)
10. **Congo :** Agricultural Development and Rural Road Rehabilitation Project (World Bank) (GEF Grant : $3.50 m)
11. **Congo DR :** Support to ICCN's Program for the Rehabilitation of the National Parks Network (World Bank) (GEF Grant : $7.00 m)
12. **Ethiopia :** Sustainable Development of the Protected Area System (UNDP) (GEF Grant : $9.00 m)
13. **India :** Biodiversity Conservation and Rural Livelihoods Improvement (World Bank) (GEF Grant : $11.50 m)
14. **Indonesia :** Fisheries Revitalization Project (FRP) (World Bank) (GEF Grant : $8.00 m)
15. **Jordan :** Integrated Ecosystem and Natural Resource Management in the Jordan Rift Valley (World Bank) (GEF Grant : $6.15 m)
16. **Kazakhstan :** Conservation and Sustainable use of Biodiversity in the Kazakhstani Sector of the Altai-Sayan Mountain Ecoregion (UNDP) (GEF Grant : $2.40 m)
17. **Serbia and Montenegro :** Transitional Agriculture Reform (World Bank) (GEF Grant : $4.50 m)
18. **Seychelles :** Mainstreaming Biodiversity Management into Production Sector Activities (UNDP) (GEF Grant : $3.70 m)
19. **Sierra Leone :** Wildlife Protection and Biodiversity Conservation Project (World Bank) (GEF Grant : $5.00 m)
20. **Uruguay :** Catalyzing the Implementation of Uruguay's National Protected Area System (UNDP) (GEF Grant : $2.50 m)

[1] The GEF grant is the funding request for the project and does not include PDFs previously approved by the CEO.

21. **Venezuela :** Expanding Partnerships for the National Parks System (resubmission) (World Bank) (GEF Grant : $6.00 m)

**Biodiversity (Biosafety)**

22. **Regional (Mexico, Colombia, Costa Rica, Peru, Brazil) :** Latin America: Multi-country Capacity-building in Biosafety (World Bank) (GEF Grant : $5.00 m)
23. **Regional (Benin, Burkina Faso, Mali, Senegal, Togo) :** West African Regional Biosafety Project (World Bank) (GEF Grant : $5.40 m)

**Climate Change**

24. **Global (Bangladesh, Bolivia, Niger, Samoa, Guatemala, Jamaica, Kazakhstan, Morocco, Namibia, Vietnam) :** Community-based Adaptation (CBA) Programme (UNDP) (GEF Grant : $4.53 m)
25. **Global:** Solar Water Heating Market Transformation and Strengthening Initiative (Phase 1) (UNDP/UNEP) (GEF Grant : $12.00 m)
26. **Regional (Senegal, Gambia, Guinea-Bissau, Mauritania, Cape Verde):** Adaptation to Climate Change - Responding to Coastline Change and Its Human Dimensions in West Africa through Integrated Coastal Area Management. (UNDP) (GEF Grant : $3.30 m)
27. **Regional (Ethiopia, Kenya, Malawi, Swaziland, Tanzania, Uganda, Sudan):** Cogen for Africa (UNEP) (GEF Grant : $5.25 m)
28. **Regional (Burundi, Kenya, Malawi, Mozambique, Rwanda, Tanzania, Uganda, Zambia) :** Greening the Tea Industry in East Africa (UNEP) (GEF Grant : $2.85 m)
29. **Regional (Kenya, Ghana) :** Lighting the "Bottom of the Pyramid" (World Bank/IFC) (GEF Grant : $5.40 m)
30. **Regional (Argentina, Brazil, Mexico):** Regional Sustainable Transport Project (World Bank) (GEF Grant : $20.80 m)
31. **Regional (Fiji, Papua New Guinea, Solomon Islands, Marshall Islands, Vanuatu):** Sustainable Energy Financing (World Bank/IFC) (GEF Grant : $9.48 m)
32. **Argentina:** Energy Efficiency (World Bank) (GEF Grant : $15.16 m)
33. **Bangladesh:** Improving Kiln Efficiency for the Brick Industry (UNDP) (GEF Grant : $3.00 m)
34. **Egypt:** Bioenergy for Sustainable Rural Development (UNDP) (GEF Grant : $3.00 m)
35. **Egypt:** Sustainable Transport (UNDP) (GEF Grant : $6.90 m)
36. **Ghana:** Development of Renewable Energy and Energy Efficieny (World Bank) (GEF Grant : $5.50 m)
37. **Guinea:** Electricity Sector Efficiency Improvement (World Bank) (GEF Grant: $4.50 m)
38. **India:** Coal Fired Generation Rehabilitation Project (World Bank) (GEF Grant: $45.40 m)
39. **India:** Enabling activities for Preparing India's Second National Communication to UNFCCC (UNDP) (GEF Grant: $3.50 m)
40. **India:** Market Transformation through Consumer Awareness Programs for Energy Efficiency Standards and Labeling (UNDP) (GEF Grant : $5.50 m)

41. **Indonesia:** Bus Rapid Transit and Pedestrian Improvements in Jakarta (UNEP) (GEF Grant : $5.81 m)
42. **Jordan:** Promotion of a Wind Power Market (World Bank) (GEF Grant : $6.00 m)
43. **Kenya:** Development and Implementation of a Standards and Labeling Programme in Kenya (UNDP) (GEF Grant : $2.00 m)
44. **Mongolia:** Heating Energy Efficiency (World Bank) (GEF Grant : $7.20 m)
45. **Mongolia:** Renewable Energy and Rural Electricity Access (World Bank) (GEF Grant: $3.50 m)
46. **Morocco :** Energy Efficiency Codes in Residential Buildings and Energy Efficiency Improvement in Commercial and Hospital Buildings in Morocco (UNDP) (GEF Grant: $3.00 m)
47. **Namibia :** Barrier Removal to Namibian Renewable Energy Programme (NAMREP), Phase II (UNDP) (GEF Grant: $2.60 m)
48. **Nicaragua:** Promotion of Environmentally Sustainable Transport in Metropolitan Managua (UNDP) (GEF Grant : $3.88 m)
49. **Philippines :** Philippines Sustainable Energy Finance Program (World Bank/IFC) (GEF Grant : $5.30 m)
50. **Rwanda:** Sustainable Energy Development Project (SEDP) (World Bank) (GEF Grant: $4.50 m)
51. **Sri Lanka:** Portfolio Approach to Distributed Generation Opportunity (PADGO) (Phase 1) (World Bank/IFC) (GEF Grant : $3.60 m)
52. **Tanzania:** Energizing Rural Transformation Project (World Bank) (GEF Grant: $6.50 m)
53. **Vietnam:** Hanoi Urban Transport Development (World Bank) (GEF Grant: $9.80 m)
54. **Zambia:** Promotion of Renewable Energy to Increase Access to Electricity (World Bank) (GEF Grant : $4.50 m)

**International Waters**

55. **Regional (Senegal, Nigeria, Ghana, Kenya, Mozambique, Seychelles, Tanzania, Cameroon, Gambia):** Demonstrating and Capturing Best Practices and Technologies for the Reduction of Land-sourced Impacts Resulting from Coastal Tourism (UNEP) (GEF Grant : $ 5.39 m)

**Land Degradation**

56. **Regional (Kazakhstan, Kyrgyzstan, Turkmenistan, Uzbekistan, Tajikistan):** Central Asian Countries Initiative for Land Management (CACILM) Multi-country Partnership Framework, Phase 1 (ADB) (GEF Grant : $ 20.00 m)
57. **Regional (Tajikistan, Kyrgyzstan):** Sustainable Land Management in the High Pamir and Pamir-Alai Mountains - and Integrated and Transboundary Initiative in Central Asia Phase I (UNEP) (GEF Grant : $3.00 m)
58. **Burkina Faso:** Partnership Programme for Sustainable Land Management (CPP), Phase 1 (UNDP) (GEF Grant : $9.65 m)
59. **Senegal:** Groundnut Basin Soil Management and Regeneration (UNDP) (GEF Grant : $3.66 m)

**Multi-focal Areas**

60. **Regional (Costa Rica, Panama) :** Sustainable Environmental Management for Sixaola River Basin (IADB) (GEF Grant : $3.50 m)
61. **Regional (Albania, Algeria, Bosnia-Herzegovina, Bulgaria, Croatia, Egypt, Lebanon, Libya, Macedonia, Morocco, Serbia and Montenegro, Syria, Tunisia, Turkey) :** World Bank-GEF Investment Fund for the Mediterranean Sea Large Marine Ecosystem Partnership (Tranche I) (World Bank) (GEF Grant : $10.00 m)
62. **Antigua And Barbuda :** Demonstrating the Development and Implementation of a Sustainable Island Resource Management Mechanism in a Small Island Developing State (UNDP) (GEF Grant : $3.00 m)
63. **Brazil :** Caatinga Conservation and Sustainable Management Project - Mata Branca (World Bank) (GEF Grant : $10.00 m)
64. **Mozambique :** Zambezi Valley Market Led Smallholder Development (World Bank) (GEF Grant : $6.20 m)
65. **Philippines :** National Program Support for Environment and Natural Resources Management Project (NPS-ENRMP) (World Bank) (GEF Grant : $7.00 m)
66. **Sri Lanka :** Participatory Coastal Zone Restoration and Sustainable Management in the Eastern Province of Post-Tsunami Sri Lanka (IFAD) (GEF Grant : $6.92 m)

**Persistent Organic Pollutants (POPs)**

67. **Global (Argentina, India, Lebanon, Philippines, Senegal, Vietnam, Latvia, Tanzania) :** Demonstrating and Promoting Best Techniques and Practices for Reducing Health-care Waste to Avoid Environmental Releases of Dioxins and Mercury (UNDP) (GEF Grant : $10.33 m)
68. **Regional (Nigeria, Ghana) :** Regional Project to Develop Appropriate Strategies for Identifying Sites Contaminated by Chemicals listed in Annexes A, B and/or C of the Stockholm Convention (UNIDO) (GEF Grant : $2.00 m)
69. **Brazil :** Development of a National Implementation Plan in Brazil as a First Step to Implement the Stockholm Convention on Persistent Organic Pollutants (POPs) (UNEP) (GEF Grant : $1.50 m)
70. **China :** Alternatives to DDT Usage in the Production of Anti-fouling Paint (UNDP) (GEF Grant : $11.61 m)

## II. Work Program

1. The GEF Chief Executive Officer/Chairman (CEO), having reviewed the conclusions and recommendations of the project review meetings with the Implementing and Executing Agencies, proposes to the Council the approval of this intersessional work program consisting of 70 full-sized project (FSP) proposals for a GEF allocation of $498.999 million (see "Work Program Project Summaries" for details on these projects and Annex A for their financial breakdown). The allocation includes $0.15 million for six PDF-A grants, and $20.318 million for fifty-three PDF-B/C grants approved earlier for preparing these proposals. Table 1 presents the total amount of GEF allocations for the 70 project proposals, including the PDF amounts previously approved for these projects.[2]

**Table 1. Proposed Allocations for June 2006 Intersessional Work Program by Focal Area**

| Focal Area | Projects(No) | GEF Amount ($m) | Cofin Amount ($m) | Total Project Cost ($m) |
|---|---|---|---|---|
| Biodiversity | 21 | 135.936 | 668.403 | 804.340 |
| Biodiversity (Biosafety) | 2 | 11.360 | 26.285 | 37.645 |
| Climate Change | 31 | 231.165 | 1,682.087 | 1,913.252 |
| International Waters | 1 | 6.015 | 23.357 | 29.371 |
| Land Degradation | 4 | 38.356 | 211.621 | 249.976 |
| Multi-focal Areas | 7 | 48.712 | 202.208 | 250.920 |
| Ozone Depletion | - | - | - | - |
| Persistent Organic Pollutants (POPs) | 4 | 27.455 | 29.474 | 56.930 |
| **Total** | **70** | **498.999** | **2,843.435** | **3,342.434** |

2. Four projects were submitted by the Executing Agencies for inclusion in this work program under the policy of expanded opportunities.

### Project Allocation Trends

3. Table 2 contains the cumulative full-sized project allocations approved through work programs, including the GEF Pilot Phase and also those non-expedited medium-sized projects (MSPs) and enabling activities (EAs) that were submitted for Council approval. Of the total GEF allocations, including the proposed work program, 35 percent is allocated to projects in the Climate Change focal area, 34 percent to Biodiversity/Biosafety, 14 percent to International Waters, 9 percent to Multi-focal Area projects, 3 percent to Land Degradation, 3 percent to Ozone Depleting Substances, and 2 percent to Persistent Organic Pollutants (POPs).

[2] The total Council Commitment for this work program is $523.44 million , which is made up of $478.53 million in project allocations and $44.91 million in Agency fees.

**Table 2. Project Allocation Trends in the Work Programs (GEF Pilot Phase - GEF 3)**
by Focal Area ($ million)*

| GEF Phase | BD | BD-BS | CC | IW | LD | MFA | ODS | POPs | Total |
|---|---|---|---|---|---|---|---|---|---|
| Pilot Phase | 323.20 | - | 280.73 | 120.36 | - | 15.60 | 4.20 | - | 744.10 |
| GEF - 1 | 394.83 | - | 424.92 | 119.43 | - | 48.95 | 121.63 | - | 1,109.77 |
| GEF - 2 | 561.74 | 33.28 | 623.69 | 294.80 | - | 132.52 | 42.22 | 6.19 | 1,694.43 |
| GEF - 3 | 743.24 | 33.71 | 846.06 | 340.17 | 199.24 | 358.44 | 11.96 | 124.35 | 2,657.17 |
| 2003 | 103.74 | 1.00 | 169.63 | 80.43 | - | 80.95 | 2.09 | 40.81 | 478.64 |
| 2004 | 152.22 | 9.83 | 199.03 | 116.49 | 34.35 | 82.62 | 5.18 | 4.57 | 604.29 |
| 2005 | 184.28 | 11.51 | 131.59 | 60.18 | 48.27 | 64.78 | 4.70 | 43.62 | 548.94 |
| 2006 | 303.00 | 11.36 | 345.80 | 83.08 | 116.62 | 130.09 | - | 35.36 | 1,025.30 |
| **Total** | **2,023.01** | **66.99** | **2,175.40** | **874.76** | **199.24** | **555.52** | **180.02** | **130.54** | **6,205.47** |
| Total % | 33% | 1% | 35% | 14% | 3% | 9% | 3% | 2% | 100% |

* *Legend:*
BD – Biodiversity; BD-BS- Biosafety; CC – Climate Change; IW – International Waters; LD – Land Degradation; MFA – Multi-focal Area; ODS – Ozone Depleting Substances; POPs – Persistent Organic Pollutants.

4. Table 2(a) provides a more comprehensive picture as it contains cumulative full-sized GEF project allocations approved by the Council through work program submissions as well as those MSPs and EAs approved by the CEO with delegated authority under the expedited procedures.

**Table 2(a). Project Allocation Trends (GEF Pilot Phase - GEF 3)** by Focal Area ($ million)*

| GEF Phase | BD | BD-BS | CC | IW | LD | MFA | ODS | POPs | Total |
|---|---|---|---|---|---|---|---|---|---|
| Pilot Phase | 323.20 | - | 280.73 | 120.36 | - | 15.60 | 4.20 | - | 744.10 |
| GEF - 1 | 420.13 | 2.74 | 452.87 | 119.43 | - | 49.67 | 122.33 | - | 1,167.17 |
| GEF - 2 | 643.18 | 34.28 | 667.23 | 301.29 | - | 143.41 | 43.40 | 26.05 | 1,858.84 |
| GEF - 3 | 814.51 | 41.13 | 875.33 | 349.43 | 211.20 | 398.77 | 11.96 | 159.91 | 2,862.24 |
| 2003 | 128.13 | 1.00 | 174.40 | 83.92 | - | 92.93 | 2.09 | 59.80 | 542.26 |
| 2004 | 164.98 | 9.83 | 205.20 | 119.48 | 38.86 | 97.71 | 5.18 | 13.07 | 654.30 |
| 2005 | 207.84 | 11.51 | 143.23 | 62.94 | 54.57 | 72.87 | 4.70 | 46.92 | 604.60 |
| 2006 | 313.55 | 18.78 | 352.50 | 83.08 | 117.77 | 135.26 | - | 40.13 | 1,061.08 |
| **Total** | **2,201.02** | **78.15** | **2,276.16** | **890.51** | **211.20** | **607.46** | **181.89** | **185.96** | **6,632.34** |
| Total % | 33% | 1% | 34% | 13% | 3% | 9% | 3% | 3% | 100% |

* Table includes all projects approved by the Council as well as those expedited MSPs and EAs that were approved by the CEO with delegated authority.

## Cofinancing Amount and Trends

5. The proposed cofinancing for this current work program, as shown in Table 3, comes from beneficiaries, bilateral and multilateral agencies, foundations, recipient governments, non-governmental organizations (NGOs), the private sector, and other sources. The total cofinancing is $2,843.44 million, which when added to the total GEF allocation brings the total project value to $3,342.43 million. Hence, each dollar that the GEF allocates is matched by $5.70 in cofinancing.

6. In terms of focal areas, 83 percent of the project cost in the biodiversity focal area comes from cofinancing, 88 percent in climate change, 80 percent in international waters, 85 percent in land degradation, 81 percent in multi-focal areas, and 52 percent in persistent organic pollutants. On the average, cofinancing will provide 85 percent of total project costs in this work program.

**Table 3. Proposed FSP Co-financing in the June 2006 Intersessional Work Program ($ m)**

| Type | Biodiversity | Climate Change | International Waters | Land Degradation | Multi-focal Areas | Persistent Organic Pollutants (POPs) | Total |
|---|---|---|---|---|---|---|---|
| GEF Grant | 135.94 | 231.16 | 6.01 | 38.36 | 48.71 | 27.46 | 499.00 |
| *Co-Financier* | - | - | - | - | - | - | - |
| Beneficiaries | 3.00 | 5.90 | - | - | 0.80 | - | 9.70 |
| Bilateral | 88.21 | 24.90 | 0.47 | 44.17 | 22.31 | - | 180.06 |
| Foundation | 25.74 | - | - | - | - | - | 25.74 |
| Government | 188.65 | 570.25 | 20.78 | 36.91 | 16.81 | 15.57 | 848.97 |
| Multilateral | 224.33 | 416.34 | 0.02 | 124.71 | 20.06 | 0.32 | 785.78 |
| NGO | 47.90 | 5.73 | 2.05 | - | 0.09 | - | 55.77 |
| Others | 88.47 | 295.68 | - | 5.83 | 141.53 | 5.09 | 536.59 |
| Private Sector | 24.39 | 363.30 | 0.04 | - | 0.60 | 8.50 | 396.82 |
| Total Co-Financing | 668.40 | 1,682.09 | 23.36 | 211.62 | 202.21 | 29.47 | 2,843.44 |
| Total Project Cost | 804.34 | 1,913.25 | 29.37 | 249.98 | 250.92 | 56.93 | 3,342.43 |
| GEF:Co-Financing Ratio | 4.92 | 7.28 | 3.88 | 5.52 | 4.15 | 1.07 | 5.70 |
| Percentage Co-Financing | 83% | 88% | 80% | 85% | 81% | 52% | 85% |

7. Table 4 shows the historical trend in total cofinancing amounts and ratios. The cofinancing ratio average for GEF-3 to date is 4.11 compared to the overall historical average of 3.68.

**Table 4. Trends in Co-financing Amounts and Ratios (GEF Pilot Phase - GEF 3)***

| GEF Phase | GEF Allocation ($m) | Co-financing Amount ($m) | | | | | | | Total Project Cost ($m) | Co-Financing Ratio |
|---|---|---|---|---|---|---|---|---|---|---|
| | | BD | CC | IW | LD | MFA | ODS | POPs | | |
| Pilot Phase | 744.10 | 189.40 | 2,402.89 | 144.26 | - | 4.35 | 1.85 | - | 3,486.84 | 3.69 |
| GEF - 1 | 1,109.77 | 878.37 | 2,119.27 | 217.40 | - | 54.37 | 95.20 | - | 4,474.37 | 3.03 |
| GEF - 2 | 1,694.43 | 1,609.20 | 3,244.93 | 545.06 | - | 328.46 | 78.05 | 3.13 | 7,503.26 | 3.43 |
| GEF - 3 | 2,657.17 | 2,764.42 | 4,454.97 | 2,068.95 | 920.69 | 831.58 | 11.49 | 134.08 | 13,576.11 | 4.11 |
| 2003 | 478.64 | 251.72 | 913.35 | 367.91 | - | 235.31 | - | 51.77 | 2,298.70 | 3.80 |
| 2004 | 604.29 | 611.40 | 430.83 | 752.42 | 67.95 | 212.85 | 6.73 | 7.76 | 2,694.23 | 3.46 |
| 2005 | 548.94 | 539.26 | 855.51 | 173.86 | 193.14 | 78.94 | 4.76 | 37.67 | 2,432.08 | 3.43 |
| 2006 | 1,025.30 | 1,362.03 | 2,255.28 | 774.77 | 659.61 | 304.48 | - | 36.87 | 6,151.11 | 5.00 |
| **Total** | **6,205.47** | **5,441.39** | **12,222.06** | **2,975.66** | **920.69** | **1,218.75** | **186.59** | **137.21** | **29,040.59** | **3.68** |

*Legend:* BD – Biodiversity; CC – Climate Change; IW – International Waters; LD – Land Degradation; MFA – Multi-focal Area; ODS – Ozone Depleting Substances; POPs – Persistent Organic Pollutants

* Table includes non-expedited MSPs and EAs that were submitted for Council approval

Note: Cofinancing ratio = Cofinancing/GEF Allocation

## Agency Fees for the Current Work Program

8. Fees are paid to the Implementing and Executing Agencies for GEF project cycle management services. This is the fifth work program in which fees are paid at a flat rate of 9

percent of the GEF grant since this revised fee system was approved by the June 2005 Council Meeting. Table 5 shows the fees amounting to $44.91 million that Implementing and Executing Agencies receive for the project proposals in this June 2006 Intersessional Work Program.

**Table 5. Proposed FSP Agency Fees for June 2006 Intersessional Work Program ($ million)***

| Agency** | Projects(No) | GEF Project Allocation | PDF Amount | Total GEF Allocation | Total Fees |
|---|---|---|---|---|---|
| ADB | 1 | 20.00 | 0.70 | 20.70 | 1.86 |
| IADB | 1 | 3.50 | 0.50 | 4.00 | 0.36 |
| IFAD | 1 | 6.92 | 0.35 | 7.27 | 0.65 |
| UNDP | 21 | 102.72 | 7.00 | 109.72 | 9.87 |
| UNDP/UNEP | 1 | 12.00 | 0.29 | 12.29 | 1.11 |
| UNEP | 8 | 30.85 | 3.62 | 34.47 | 3.10 |
| UNIDO | 1 | 2.00 | 0.65 | 2.65 | 0.24 |
| World Bank | 31 | 269.76 | 6.93 | 276.69 | 24.90 |
| World Bank/IFC | 5 | 30.78 | 0.44 | 31.22 | 2.81 |
| | | | | | |
| **Total** | **70** | **478.53** | **20.47** | **499.00** | **44.91** |

* The PDF amount shown in this table included all PDF-A, B, and C grants that were approved earlier.

## III. WORK PROGRAM PROJECT SUMMARIES

### Biodiversity

### 1. Global (C'ote d'lvoire, Ghana, Indonesia, Malaysia): Biodiversity and Agricultural Commodities Program (BACP )(World Bank/IFC)

Focal Area/OP/Strategic Priority: Biodiversity/OP2-Coastal, Marine, and Freshwater Ecosystems/OP3-Forest Ecosystems/OP13-Conservation and Sustainable Use of Biological Diversity Important to Agriculture/OP12 Integrated Ecosystem Management/ OP14 Persistent Organic Pollutants/OP15 Sustainable Land Management/SP2 Mainstreaming Biodiversity in Production Landscapes and Sectors/SP4-Generation and Dissemination of Best Practices for Addressing Current and Emerging Biodiversity Issues.

| | |
|---|---|
| Local executing agency: | International Finance Corporation (IFC) |
| Total Cost of the Project: | $19.110 M |
| GEF Funding Request: | $7.00 M (+ PDF $436,000) |
| Key Indicators: | 2.8 million hectares of productive landscapes, including land around protected areas, are under productive use, but support habitats and ecosystems (equivalent to 10 percent of area used by BACP's target commodities in the Program's target countries). |

Rationale & Objective:
The expansion of agriculture and the associated use of land, water, and inputs is the leading cause of habitat destruction and a major threat to global biodiversity. Production areas for oil palm, cocoa, sugarcane and soybeans overlap with areas of globally significant biodiversity. The Program will promote global scale adoption of biodiversity-friendly Better Management Practices that decrease the impact of production on biodiversity, by moving sustainably produced commodities from niche markets into the mainstream. BACP will strategically target its interventions so as to have the greatest impact on the four commodities, and will seek replication to other commodities.

The Project Objective is to preserve global genetic, species and ecosystem diversity within agricultural production landscapes, by transforming markets for targeted agricultural commodities.

Project Outcomes:

(a) biodiversity of global importance protected;
(b) barriers removed and the adoption of biodiversity- and market-friendly Better Management Practices mainstreamed throughout the value chain; and
(c) markets transformed by mainstreaming the supply of, demand for, and financing to commodities produced using biodiversity-friendly methods.

Project Outputs:

(a) the enabling market environment supported by documenting the better biodiversity-friendly practices; making the business case in terms of biodiversity,

business, supply security, farm lifetime, social and other, of biodiversity friendly practices; and supporting policy dialogue with the relevant public policy makers;

(b) better production supported via site-specific projects;

(c) demand increased for products with more positive biodiversity impacts; and

(d) financial services developed to support biodiversity-friendly practices.

**2. Global: Building the Partnership to Track Progress at the Global Level in Achieving the 2010 Biodiversity Target (Phase 1) (UNEP)**

Focal Area/OP/Strategic Priority: Biodiversity/OP1- Arid and Semi-arid Ecosystems/ OP2-Coastal, Marine and Freshwater Ecosystems/OP3-Forest Ecosystems/OP4-Mountain Ecosystems/OP12-Integrated Ecosystem Management/OP13-Conservation and Sustainable Use of Biological Diversity Important to Agriculture/SP4-Generation and Dissemination of Best Practices for Addressing Current and Emerging Biodiversity Issues

Local Executing Agency: UNEP-WCMC and a range of collaborating organizations
Total Cost of the Project: $13.585 million
GEF Funding Request: $3.639 million (+ PDFs of $306,000)
Key Indicators:

- Increased availability and use of the 2010 biodiversity indicators by decision-makers in policy fora including MEA COPs, UNGA meetings, and GEF Council, between 2009 and 2012, compared to 2002 to 2006.
- The implemented 2010 biodiversity indicators are incorporated, by 2010, into products that are used in at least three Convention processes, and at least twenty international programmes and mechanisms, national governments, and agencies (such as UN agencies, IUCN, various national governments and regional processes such as the European Union).
- The suite of available global 2010 indicators identified by the CBD shows progress, by 2010, in reduction of the rate of loss of biodiversity at the global level.

Rationale & Objective:
The world community has adopted a global target for reducing the rate of loss of biodiversity by 2010, and needs to be able to track progress in achieving this target. This project aims to ensure that the wide range of agencies and organizations already working in this area can collaborate more effectively to deliver a suite of global indicators that will be used for tracking and communicating progress towards this target. The agreed global indicators are at different stages of development and implementation, and are managed by a wide range of organizations and agencies. This project will support the regular delivery of a suite of 2010 indicators at the global level, in a way that is meaningful to a range of audiences in supporting both policy intervention and communicating the degree of success in achieving the 2010 target. This requires cost-effective partnership of the organizations and agencies working on the individual indicators. The indicators will be meaningful at a global level, but clearly linked to related indicators at national and regional levels, to targets and indicators used within the context of a range of international conventions and programmes, and to targets and indicators relevant to other initiatives and sectors (in particular the Millennium Development Goals).

The development objective of this project is a reduction in the rate of biodiversity loss at the global level, through improved decisions for the conservation of global biodiversity.

The immediate objective of this project is that decisions made by governments and other stakeholders are better informed to improve the conservation status of species, habitats, and ecosystems at the global level.

Project Outcomes:

The 2010 Biodiversity Indicators Partnership (2010BIP) project aims to achieve its objectives through the delivery of three outcomes:

(a) a 2010 Biodiversity Indicators Partnership generating information useful to decision-makers;
(b) improved global indicators implemented and available; and
(c) national governments and regional organizations using and contributing to the improved delivery of global indicators.

Project Outputs:

(a) working partnership on 2010 indicators is established and maintained;
(b) a communication strategy meeting user needs is prepared and implemented;
(c) standards, guidelines and methods for indicator development, peer review, and information sharing;
(d) individual indicators strengthened and delivered;
(e) enhanced capacity of national governments and regional organizations to contribute to global indicator delivery; and
(f) guidelines and other tools available to governments and regional organizations for the use of global indicators and their methodologies in national and regional decision-making.

**3. Global: Conservation and Use of Crop Genetic Diversity to Control Pests and Diseases in Support of Sustainable Agriculture (UNEP)**

| | |
|---|---|
| Focal Area/OP/Strategic Priority: | Biodiversity/ OP13/SP2 & SP4 |
| Local Executing Agency: | Yunnan Agricultural University, Kunming, Yunnan, China<br>Instituto Nacional Autónomo de Investigaciones Agropecuarias (INIAP), Quito, Ecuador;<br>Institut Agronomique et Vétérinaire (IAV) Hassan II, Rabat, Morocco;<br>National Agricultural Research Organisation, Entebbe, Uganda;<br>International Plant Genetic Resources Institute (IPGRI), Rome, Italy |
| Total Cost of the Project: | $8.035 million |
| GEF Funding Request: | $3.411 million (+ $350,000) |

Key Indicators:

- At least 356,000 ha of land contribute to the conservation and sustainable use of crop genetic diversity in respect to minimizing pest and disease damage.
- 10 percent of the families from 31 local and indigenous communities show increased and more reliable food supply through the use of crop genetic diversity to minimize crop loss.

Program Rationale & Objective:

The potential negative consequences of planting large areas to single crop cultivars with uniform resistance to pests or diseases were recognized as early as the 1930s. The resulting economic and food resources costs from this loss are a major consequence of the continuing evolution of pests and pathogens able to overcome resistant genes introduced by modern breeding. Breeding programs are in place to develop new varieties and to replace varieties that have lost their resistance; however, the maintenance cost of the current system is estimated to be very high and is leading erosion of the traditional crop diversity. Small-scale farmers in developing countries continue to depend on genetic diversity to maintain sustainable production and meet their livelihood needs. Loss of genetic choices, reflected as loss of local crops cultivars, therefore, diminishes farmers' capacities to cope with changes in pest and disease infection, and leads to yield instability and loss. Local cultivars are a primary source for the new resistant germplasm.

The project will conserve crop genetic diversity in ways that increase food security and improve ecosystem health. The project will enhance the conservation and use of crop genetic diversity by farmers, farmer communities, and local and national institutions to minimize pest and disease damage on-farm. Three outcomes are anticipated:

(a) rural populations in the project sites benefit from reduced crop vulnerability to pest and disease attacks;
(b) increased genetic diversity of target crops in respect to pest and disease management; and
(c) increased capacity and leadership abilities of farmers, local communities, and other stakeholders to make diversity rich decisions in respect to pest and disease management.

The project targets six crops: rice (*Oryza sativa*), maize (*Zea mays*), barley (*Hordeum vulgare*), common bean (*Phaseolus vulgaris*), faba bean (*Vicia faba*), banana and plantain (*Musa* spp.). These crops are major nutritional staples for large segments of the developing world and their yield stabilities are important factors in food security.

Program Components

The project will have four key outputs. All four outputs will contribute to each of the three outcomes[3]:

(a) criteria and tools to determine when and where intra-specific genetic diversity can provide an effective management approach for limiting damage caused by pests and disease;
(b) practices and procedures that determine how to optimally use crop genetic diversity to reduce pest and disease pressures;
(c) enhanced capacity of farmers and other stakeholders to use local crop genetic diversity to manage pest and pathogen pressures; and
(d) actions that support adoption of genetic diversity rich methods for limiting damage caused by pests and diseases.

[3] All four project outputs contribute to the achievement of each of the three project outcomes and are therefore listed together after the project outcomes in the project logical framework (Annex B) in the project document.

**4. Global: Critical Ecosystem Partnership Fund, Phase II (World Bank)**

| | |
|---|---|
| Focal Area/OP/Strategic Priority: | Biodiversity/OP1, 2, 3, and 4/SP1, 2 and 4 |
| Local Executing Agency: | UNOPS |
| Total Cost of the Project: | $100 million |
| GEF Funding Request: | $20 million |
| Key Indicators: | The project will contribute to the protection of 20 million hectares of key protected areas with strengthened protection and management, including at least 8 million hectares of new protected area. The project will also contribute to improve management of 1 million hectares in protection landscape for biodiversity conservation or sustainable use. |

Project Rationale and Objective:
This proposal is a request for additional GEF resources to rollout a second phase of the global program of the Critical Ecosystem Partnership Fund (CEPF). The second phase is essential to consolidate the program in existing hotspots, further strengthen local civil society capacity to conserve and manage biodiversity, and extend CEPF support to civil society in newly defined areas of critical biodiversity importance, which would include marine and coastal ecosystems. CEPF will significantly expand the conservation efforts of its partners and national governments as a streamlined, agile fund designed for civil society, including many nongovernmental organizations and community groups often outside the reach of traditional funding mechanisms. Its approach emphasizes partnerships to avoid duplication of effort and maximize outcomes per dollar spent.

Under the program, at least 14 critical ecosystems and hotspots will have active investment programs implemented by civil society groups at the national and local levels. For the second phase, the program supports a decentralized approach with increased responsibilities to the entities at the site level. Moreover, further emphasis has been made on socioeconomic, policy, and civil society assessment and consideration, including indigenous groups' participation in project activities

Project Outcomes:
The project will have four components:

(a) strengthening protection and management of globally significant biodiversity;
(b) increasing local and national capacity to integrate biodiversity conservation into development and landscape planning;
(c) effective monitoring and knowledge sharing; and
(d) global priorities, business planning and project execution.

**5. Global: Institutionalizing Payments for Ecosystem Services (UNDP)**

| | |
|---|---|
| Focal Area/OP/Strategic Priority: | Biodiversity/OP2-Freshwater, Coastal, Marine; OP3-Forests/OP4-Mountains/SP2-Mainstreaming Biodiversity in Production Landscapes and Sectors |
| Local executing agency: | UNOPS |
| Total Cost of the Project: | $18.175 M |
| GEF Funding Request: | $5.691 M (+ PDFs of $457,000) |

Key Indicators:

Biodiversity outcomes are improved on at least one million hectares in Eastern and Southern Africa and tropical America, by improving design of PES schemes, stimulating new PES schemes, and supporting pilots of new models of biodiversity payments. Activities will increase the number of ecosystem service buyers from the private sector globally, and mobilize new buyers for four PES schemes. Low-income communities will become engaged in PES that benefit livelihoods and local conservation.

The project will indirectly contribute to improved biodiversity outcomes on at least two million hectares globally by reducing costs and risks of ecosystem market transactions, and providing best practice guidelines through a global ecosystem market information service.

Rationale & Objective:

Proactive, systematic, cross-sectoral, and collaborative efforts are needed to overcome barriers to private sector's role as ecosystems service buyers or investors, and to realize the potential of PES to finance biodiversity conservation on a meaningful scale. This project will cost-effectively remove key barriers and fill gaps in national PES developments through the provision of global and regional support mechanisms and empowering and enabling the innovators who will be responsible for policy and institutional development. Elements of support include: accurate and timely market intelligence; state-of-the-art understanding of PES policy, institution and project design; on-going access to expert and peer experience and advice during the process of PES design and implementation; and platforms for cross-sectoral dialogue and institution building.

The Project Objective is to conserve biodiversity and ecosystem services by supporting the institutional capacity for expanding systems of payments for ecosystem services to a scale and quality sufficient to have a meaningful impact on global conservation.

Project Outcomes:

(a) timely, relevant, PES market information services for PES available to all stakeholders globally, through the Katoomba Group's Ecosystem Marketplace;
(b) national champions and stakeholders of PES in E. and S. Africa and Tropical America have improved capacity and access to resources and support for institutional and policy development for PES; and
(c) operational models and capacity to effectively design, establish and implement new PES and improve existing PES for biodiversity conservation.

Project Outputs:

(a) biodiversity market information services provided for market actors and communities;
(b) awareness-raising and marketing activities, aimed at all user groups implemented;

(c) 50% self-financing achieved by 2010 for the Marketplace;
(d) information, analytical tools and technical support provided to key stakeholders of the recently formed Eastern and Southern African Katoomba Group network and the Tropical America Katoomba Group;
(e) PES policy, planning and institutions improved;
(f) replicable models and tools developed to implement landscape-scale approaches to agri-environmental payments;
(g) improved ecoagriculture payment schemes designed and piloted in two landscapes in Eastern Africa and tropical America;
(h) a portfolio of successful biodiversity offset pilot projects established;
(i) best practices and guidance for designing and implementing biodiversity offsets developed, tested and disseminated;
(j) new PES in forest enterprises designed and implemented with project support;
(k) cases documented, and lessons synthesized and disseminated with a toolkit on how to set up PES in forest enterprises;
(l) pipeline developed for investment in PES in forest enterprise;
(m) develop a conceptual framework and decision support tool for fishery and flood protection PES;
(n) feasibility assessment for coastal PES in two landscapes; and
(o) resource materials on coastal PES compiled and disseminated.

**6. Argentina: Sustainable Forestry Development Project (World Bank)**

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|---|---|
| Focal Area/OP/Strategic Priority: | Biodiversity/OP3- Forest Ecosystems/OP1- Arid and Semi-arid Ecosystems/SP2- Mainstreaming Biodiversity in Production Landscapes and Sectors |
| Local Executing Agency: | Secretariat of Agriculture, Livestock, Fisheries, and Food ( SAGPyA) |
| Total Cost of the Project: | $14.468 million |
| GEF Funding Request: | $7.0 million (+ PDF-B of $245,000) |

Key Indicators:

- At least 50,000 hectares of large plantations incorporating improved practices for biodiversity conservation.
- At least 20,000 hectares of small and medium producers mainstreaming biodiversity into forestry plantations or adopting biodiversity-responsible agro-forestry techniques.

Rationale & Objective:
The proposed Project is partially-blended with an IBRD loan for the Sustainable Forestry Development Project. Its Project Development Objective is to improve plantation production and management, foster rural development and enhance the environmental values of plantation forestry in Argentina. This $25 million IBRD project seeks to improve plantation productivity and management, foster rural development, and enhance the environmental values of plantation forestry in Argentina. It will this do by updating the policy framework, strengthening institutional capacity at provincial level, improving public and private information delivery services, improving the efficiency of research, facilitating the involvement of small and medium-scale farmers[4] in plantation forestry and agro forestry, and institutionalizing environmental safeguards and best practice into plantation management. The proposed $14 million GEF project's Global Environment Objective (GEO) is to increase integration of biodiversity-responsible practices and policies into the plantation-forestry sector at the national level and in select provinces.

Project Outcomes:

(a) strengthened federal, provincial and local forestry institutions integrate and promote biodiversity conservation in forestry plantations;
(b) improved development, validation, and dissemination of practices that conserve and restore biodiversity in target areas;
(c) small, medium and large producers adopting best practices for biodiversity-friendly plantations; and
(d) mainstreaming program is effectively managed, with strengthened institutional monitoring and evaluation capacities.

[4] Small producers are defined as those with less than 50 hectares under production, medium producers have 50 to 1000 hectares, and large producers have planted areas of more than 1000 hectares (based on definition in Argentina, National Inventory of Forest Plantations, SAGPyA, 2001).

Project Outputs:

(a) biodiversity planning maps for 7 provinces planning and evaluating plantation projects in selected ecosystems of global importance developed with stakeholders and adopted at Federal and Provincial levels;

(b) 100% of designated representatives of national forest agency, 7 provincial environmental and/or forestry agencies, and participating extensionists trained to evaluate and supervise environmental impact assessments for biodiversity;

(c) 5 of 7 provincial environmental and/or forestry agencies employing strengthened biodiversity regulations in environmental impact assessment (EIAs);

(d) 3 of 7 provincial governments have new draft policies for incorporating biodiversity concerns into plantation-forestry concerns;

(e) new draft federal legislation to replace law 25.080 incorporates biodiversity concerns, as do associated new drafts of regulations;

(f) roundtables established in 7 Provinces, by EOP, have incorporated biodiversity conservation into discussions for policy development;

(g) best practices including native seedbank, ecosystem toolkits, and economic analysis developed for plantation ecosystems;

(h) best practices disseminated to 3,500 forestry-sector stakeholders through extension programs in 7 provinces, an international conference, and university-level programs on biodiversity conservation and plantations;

(i) increase in biodiversity levels, no. of small- and medium-producers incorporating biodiversity conservation in plantation landscapes by end of project;

(j) seed bank networks established in order to foment increase of no. of nurseries providing native spp. from 18 to 36;

(k) at least 20,000 hectares of small and medium producers have been supported in implementing agro-forestry (Misiones) or best management practices for biodiversity conservation (Patagonia and Mesopotamia);

(l) changes in levels of biodiversity awareness as surveyed in targeted subproject areas in Y02 and Y04 increases 50% over baseline;

(m) at least 50,000 hectares of large plantations (>1000 ha) are incorporating biodiversity-responsible practices and planning within ecoregions of global importance;

(n) baseline studies and public discussions for establishment of of 7 new protected areas in the productive landscape;

(o) project management system working efficiently, according to World Bank rules and federal law. To be measured by output indicators such as audits, disbursement reports, reports, etc; and

(p) SAGPyA's monitoring system up and running, monitoring and evaluation findings incorporated into ongoing programs, and partnership arrangements exist in at least one participating province.

**7. Bosnia-Herzegovina: Forest and Mountain Protected Areas Project (World Bank)**

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|---|---|
| Focal Area/OP/Strategic Priority: | Biodiversity/OP3-Forest Ecosystems &OP4-Mountain ecosystems/SP1- Catalyzing Sustainability of Protected Area Systems |
| Local Executing Agency: | Ministries of Environment of Federation of Bosnia & Herzegovina and of Republica Srpska |
| Total Cost of the Project: | $6.90 million |
| GEF Funding Request: | $3.4 million |

Key Indicators:

- Area under formal protection (using all IUCN categories) increases by 3 percent or approximately 150,000 ha.
- Increase in management effectiveness of the following protected areas: Sutjeska National Park, Kozara National Park, Janj Forest Preserve, Lom Forest Preserve, Igman-Bjelasnica-Treskavica-Visocica National Park, Una River National Park.
- Portion of recurrent management costs covered by PA income increases to 15 percent from budget allocation, 40 percent from entry/service fees (for existing parks) and 25 percent from fees for new PAs.
- New ecosystem approaches such as PA zoning, joint management, etc. are implemented in at least 3 PAs.
- 200,000 ha of buffer zone areas supporting sustainable natural resource use and biodiversity conservation.

Rationale & Objective:

Bosnia and Herzegovina (BiH), with a land area of 51,000 $km^2$ is endowed with internationally recognized rich biodiversity assets which includes over 5,000 confirmed taxa of vascular flora, including 450 of which are endemic to BiH only. For several taxonomic groups (e.g., lichens, mosses, algae, fungi, and bacteria) comprehensive surveys do not exist, but available data indicate these groups are also highly diverse. BiH's forest resources are among the richest in Europe with a wide variety of coniferous and deciduous species. Its large blocks of forests maintain ecological integrity; river dynamics; and large carnivore dispersion between Central and South-East Europe. Much less is known about fauna than flora -- inventories are not complete, and uniquely for Europe, BiH does not yet have its own official Red Lists. However, it is known that at least thirty-two species of animals and plants found in BiH are on the 2002 IUCN Red List of threatened species. The presence of large carnivores in some parts of the country indicates the food chain is still complete. Keystone species include bear, wolf and river otter.

There are numerous threats facing BiH's biodiversity assets. The main overarching issue is the challenge of balancing economic development of a post-conflict country with conservation of globally significant natural resources. Currently only 0.55% of the territory is formally protected, which is the lowest level in Europe, compared to the regional average of 7 percent. Broad consensus on expanding the network of protected areas exists among stakeholders at all levels in both entities. Key ministerial officials, as well as local governments, and numerous civil society organizations, are committed to developing a system of protected areas which would protect key biodiversity and cultural assets, as well as providing new income opportunities for

local residents. However, given the lack of a strong national and local level capacity to conserve biodiversity combined with a weak enabling environment, economic development, including that of the forest and wood processing industry, has damaged and could further harm BiH's ability to preserve its biodiversity in the long term.

In order to overcome these obstacles, the project's development objective is to strengthen the institutional and technical capacity for sustainable protected area management and expand the national network of forest and mountain protected areas in order to better conserve globally significant biodiversity in critical forests and mountain ecosystems of BiH.

Project Outcomes:

(a) expansion of the national network of forest and mountain protected areas;
(b) increased management effectiveness of four existing and two new protected areas;
(c) existing PA operations improved and new PA established and capitalized;
(d) planning, management and leadership skills of institutions responsible for biodiversity conservation and sustainable land use increased; and
(e) environmentally and economically sustainable natural resource use and tourism development in protected areas and buffer zones promoted.

Project Outputs:

(a) development and implementation of new management plans, emphasizing ecosystem approaches, and approaches for participatory land use planning;
(b) new infrastructure, and limited small-scale building rehabilitation, necessary for improving the operations of existing PAs, and for capitalizing the newly created protected areas;
(c) implementation of some elements of the financing strategy for the PA system including increasing tourism capacity;
(d) capacity building for the Ministries in charge of protected area management and land use planning (including the National Biodiversity Committee); and
(e) a Small Grants Program in order to support stakeholders living in and around protected areas in small-scale tourism development activities.

**8. Botswana: Wildlife Conflict Management and Biodiversity Conservation for Improved Rural Livelihoods (World Bank)**

Focal Area/OP/Strategic Priority: Biodiversity/ OP1, SP1 and 2
Local Executing Agency: Department of Wildlife and National Parks
Total Cost of the Project: $30.82 million
GEF Funding Request: $5.5 million (+ PDF of $320,000)
Key Indicators:

- Wetlands Biodiversity Conservation and Management is improved in at least 3 Protected Areas adjacent to community pilot sites with an increase of 20% over the Management Effectiveness Score baseline.
- Community Management Plans involving co-management of biodiversity resources incorporate wildlife conflict mitigation and biodiversity conservation measures in 20 villages.

Rationale & Objective:
Wildlife conflict has drastically increased in the last ten years in some communities living near scarce wetland resources in Botswana, and severely impacting rural livelihood strategies of the poor and threatening biodiversity resources in these critical wetland systems. The main areas where conflict has been on the rise include the biodiversity rich areas of the northern system, and the Makgadikgadi system which is important for its Zebra and wildebeest populations. The proposed project will assist the Botswana Department of Wildlife and National Parks, in collaboration with local NGOs, Ngamiland and Chobe District governments, and key agencies, in strengthening conservation, sustainable use and mainstreaming wildlife and biodiversity in Botswana's economic development, through policy and institutional reforms, strengthening Community-based Natural Resources Management policy and implementation, and on-the-ground interventions in high biodiversity and conflict areas, focused on livelihood-enhancing community participation in wildlife management, conflict resolution, and monitoring and evaluation.

Project Outcomes:
The outcomes of the project include the following:

(a) enhanced biodiversity conservation in Botswana's Northern Wetland areas given their exceptional but highly vulnerable biodiversity richness;
(b) reduced wildlife conflict, through development of community based participatory management and institutional strengthening, including a multi-stakeholder early warning system linked to species management;
(c) reduced unsustainable pressure on biodiversity resources, through strengthening and linking CBNRM and benefit streams to community-based monitoring and community biodiversity stewardship activities, as well as improved livelihood opportunities;
(d) increased prospects and opportunities for biodiversity conservation within the complex savannah-wetlands ecosystem, at the landscape level (i.e., including PAs, WMAs, through harmonization of policies and regulations, and institutional strengthening to support significant improvements in wildlife conflict an species management;

(e) increased potential for development and replication (in other systems of global importance) of best practice approaches to participatory management of wildlife conflict for wetland ecosystems in arid and semi arid environments; and

(f) improved prospects for strengthening regional collaboration and trans-frontier biodiversity conservation initiatives (with South Africa, Namibia, Zimbabwe, Angola, and Zambia).

Project Outputs:

The project will have the following four components:

(a) strengthening the policy and institutional framework;

(b) Strengthening community based natural resource management;

(c) developing a community-based wildlife conflict management and early warning system framework; and

(d) monitoring and evaluation, and project management.

**9. China: Guangxi Integrated Forestry Development and Biodiversity Conservation (World Bank)**

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|---|---|
| Focal Area/OP/Strategic Priority: | Biodiversity/OP3-Forest Ecosystems/SP1- Catalyzing Sustainability of Protected Area Systems |
| Local Executing Agency: | Guangxi Forestry Bureau |
| Total Cost of the Project: | $201.14 million |
| GEF Funding Request: | $5.25 million (+ PDF-B of $350,000) |
| Key Indicators: | Improved management of five clusters of protected areas totaling about 65,000 hectares. This would contribute to the sustainability of the overall protected area network by (a) improving management of a poorly represented (karst) habitat type; and (b) strengthening capacity at provincial network level by using project PAs as training centers to replicate good practice and capacity to other PA sites. |

Rationale & Objective:
The overall project development objective is to significantly improve the effectiveness of forest management and institutional arrangements in timber production, watershed protection and nature reserves management in Guangxi Province and demonstrate this integrated approach to forest management. This objective would be achieved by supporting complementary and mutually supportive management improvements in each of the three main forest categories - production, protection (ecological), and conservation. Specifically, the project would support (a) expanding and strengthening forest resources development through the establishment of timber plantations and the development of mechanisms that would better link timber production, marketing, and processing to take pressure off natural forests; (b) improvement of the existing provincial ecological forest protection program by better linking ecological benefits with social benefits, including a carbon sequestration and trade pilot program; (c) strengthening the management of selected nature reserves established to protect globally important ecosystems and biodiversity and identifying opportunities for enhancing biodiversity outside of protected areas (e.g., in the forest protection program); and (d) supporting stakeholders in the forestry sector in GZAR through the development of a forestry strategy, guidelines and policies, and applied research needed for sustainable forest resources management, as well as for an effective project monitoring and evaluation system.

The global environmental objective is to better conserve globally significant biodiversity of Guangxi Zhuang Autonomous Region (GZAR) by ensuring effective in-situ protection of threatened and globally important forest habitats and rare and endemic species. This objective will be achieved by: (a) supporting the development and implementation of management plans for selected globally significant, high priority nature reserves; (b) promoting enhanced biodiversity management in critical watershed forest areas near to these high priority nature reserves; (c) assisting with the implementation of comprehensive biodiversity surveys of selected karst cave systems to document and demonstrate their conservation significance and to promote their conservation; (d) strengthening the relationship between nature reserves and local human communities to mobilize community support for conservation; (e) providing in-service training

to nature reserve staff and provincial staff to improve their performance; and (f) strengthening the capacity of institutions to manage natural forests and nature reserves sustainably.

Project Outcomes:

(a) project-supported timber plantations achieve higher annual timber volume growth per hectare than non-project plantation areas;
(b) project forest farm employees are able to engage in self employment;
(c) increase in vegetation cover in targeted watersheds at project completion;
(d) average Nature Reserve Management Effectiveness Tracking Tool (METT) score for five target reserves improves from 43 to 60 at mid-term and 70 at completion; and
(e) populations of key indicator species (e.g., primates & turtles) or areas of limestone forest in at least 4 out of 5 nature reserves remain stable or increase.

Project Outputs:

The Project has four components: Expanding Timber Plantations; Increasing Ecological Forest Cover; Improving Management of Nature Reserves; and Enhancing Institutional and Management Capacity. The main outputs of these four components would be:

(a) expanding Timber Plantations: 200,000 ha of timber plantations established and a number of high quality nurseries established and/or improved;
(b) increasing Ecological Forest Cover: 118,000 hectares of watershed protection land under improved protection of which 4,000 ha established and implemented to pilot biocarbon trading;
(c) improving Management of Nature Reserves: five nature reserves totaling 65,000 hectares implementing, evaluating, adjusting and monitoring the conservation benefits of technically-sound, cost-effective management plans that involve local communities; and
(d) enhancing Institutional and Management Capacity: Development of a GZAR forestry strategy; provincial biodiversity conservation officials promoting the conservation of biodiversity, particularly karst biodiversity, outside the provincial nature reserves; strengthened provincial conservation guidelines and regulations; and enhanced skills and knowledge of staff of GZAR Forestry Bureau, County Forest Bureau, forest farms, and nature reserve management entities, as well as communities/households, with regard to sustainable forest management and conservation.

**10. Congo: Agricultural Development and Rural Road Rehabilitation Project (World Bank)**

Focal Area/OP/Strategic Priority: Biodiversity/ OP2, SP1 and 2
Local Executing Agency: Ministry of Agriculture, Livestock, and Fisheries
Total Cost of the Project: $36.25 million
GEF Funding Request: $3.50 million (+ PDF-B of $350,000)
Key Indicators:

- 100% increase in effective management for two selected PAs and their buffer zones compared with baseline at start of project, including the formulation and implementation of community-based management plans for biodiversity conservation and sustainable us.
- 9,545 km2 with reduced biodiversity loss of 80% (of baseline value) in the two protected areas.

Rationale & Objective:
The proposed GEF project is aimed to promote the conservation and sustainable use of biological diversity of coastal, marine and freshwater ecosystems in Congo, while supporting the livelihood and economic opportunities of the communities living in and around conservation areas. The GEF support will help the Government of Congo to develop a national system of protected areas that encompasses representative ecosystems of globally significant biodiversity. More specifically, GEF will help the Government to implement an ecosytem approach that recognizes the needs to restore and protect critical habitats while contribtuing to the livlehood needs of the local communities.

The country has recently emerged from a long period of political and social strife that plagued the country throughout the 1990s. The 2000-2002 Interim Post-Conflict Program helped the Government to make a decisive transition from crisis management to growth and sustainable development. The 2003 Transitional Support Strategy (TSS) developed by the World Bank aimed at helping the Government to implement its Interim Post-Conflict Program. To meet the challenges the country faces, the World Bank is preparing an IDA project entitled 'Agricultural Development and Rural Road Rehabilitation Project' that particularly contributes to meeting the following objectives: (i) to support job creation through growth and diversification, and (ii) to enhance the public sector through improved resource management and capacity building. The main objective of this IDA operation is to create the overall conditions needed for economic and social recovery, and for the rehabilitation of all the economic sectors. The proposed GEF project has been developed as a fully blended operation to the IDA project.

Project Outcomes and Outputs:

The project has four components:

(a) capacity building for improved agriculture and natural resources support services;
(b) rural roads rehabilitation and market access;
(c) sustainable management of fisheries and biodiversity conservation; and
(d) project coordination and management.

GEF incremental resources will finance the following actions:

(a) re-enforcing the policy framework and institutional arrangements for biodiversity conservation and management;

(b) improving substantially the management of one community based conservation area, the Lac Tele community reserve and its buffer zone; and the expansion of a coastal national park (Conkouati Douli National Park) into a marine habitat;

(c) supporting the development of alternative and or new livelihoods for communities living in proximity to these sites; and

(d) improving the capacity of public institutions, NGOs, and local communities involved in the management of these two PAs.

**11. Congo DR: Support to ICCN's Program for the Rehabilitation of the National Parks Network (World Bank)**

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| Focal Area/OP/Strategic Priority: | Biodiversity/OP3-Forest Ecosystems/SP1-Catalyzing Sustainability of Protected Area Systems |
| Local Executing Agency: | Congolese Institute for Nature Conservation (ICCN) |
| Total Cost of the Project: | $57.88 million |
| GEF Funding Request: | $7.00 million (+ PDF-B of $280,000) |

Key Indicators:

- ICCN's increased capacity and credibility demonstrated by securing sufficient funding for basic budgeted activities for 3 years post-project.
- Increase in management effectiveness in two selected PAs and buffer zones (from 39 to 68 and from 39 to 75, respectively as measured by GEF SP 1-Tracking Tool).
- Critical areas (2 million hectares) proposed for gazettment under protection status secured from major infrastructure and industrial programs, and consultations occur prior to considering such programs in additional areas (10 million hectares) identified as potential new protected areas.

Rationale & Objective:

The Democratic Republic of Congo is the most biologically rich country in Africa and one of the most important centers of biodiversity in the world. In habitats ranging from mangroves and tropical rainforests to snow-covered mountains and volcanoes, the country harbors a broad diversity of spectacular endemic species, including the okapi, the northern white rhinoceros, Grauer's gorilla, the bonobo chimpanzee and the Congo peacock. The DRC ranks fifth in the world for plant and animal diversity and first in Africa for numbers of mammals and birds. The country also has extraordinary forest resources: its 2 million square kilometers of forest cover represent more than 50 percent of Africa's rainforest, which is the second largest tropical forest area in the world, after the Amazon.

Today, after a decade of armed conflict and political turmoil, the DRC is returning to peace. The Transitional Government established in July 2003 is mobilizing forces towards peace and reunification, economic recovery and the rebuilding of institutions. This trend provides an important opportunity to rehabilitate and strengthen the country's system of protected areas, and conserve and protect its unique and important biodiversity. Currently there are seven national parks and 57 nature and hunting reserves in the DRC, including five of Africa's World Heritage Sites, all of which have been placed on the list of World Heritage Sites in Danger. These protected areas make up about 8 percent of the DRC's national territory, and the government has made a commitment to increase this coverage to 15 percent of the country.

Within the context of this post-conflict situation in the DRC, there are several key threats (including a barrier) to the conservation of globally important biodiversity that will be addressed by this project: (i) the government agency charged with the administering protected areas lacks institutional capacity at all levels; (ii) priority protected areas face specific threats that must be addressed in the short and medium term in order to preserve their ecological integrity; and (iii) the protected area system as currently constituted is insufficient to protect adequate samples of

the DRC's globally significant biodiversity in the face of anticipated post-war development pressures. The three components of this project are designed to address each of these threats: 1) Support to ICCN institutional rehabilitation – national level; 2) Site-level direct support to two national parks and buffer zones; and 3) Expansion of the national protected areas network – national level.

The project's Global Environment/Development Objective is "Strengthened capacity in the DRC to conserve globally important biodiversity". By working with the national parks institution, ICCN, at both the central and two site levels, the GEF project will enhance ICCN's overall capacity and profile, contribute to a strong coordination among partners, contribute to safeguard and rehabilitate two priority national parks and their buffer zones, and contribute to expand existing protected areas network. The project interventions are geared to help DRC rehabilitate its capacities and assets while developing constructive relationships with local communities.

Project Outcomes:

(a) ICCN's finance and administrative directorate is fully operational and financial resources under its responsibility are managed in an effective and transparent manner;
(b) enhanced cooperation with Rwanda, Uganda and Sudan wildlife management authorities through implementation of joint work-plans;
(c) members of key stakeholders groups demonstrate increased understanding of the importance of biodiversity conservation and of ICCN strategies;
(d) four key indicator species (rhinos, giraffes, gorillas, elephants) remain stable compared with baseline at start of project;
(e) significant decrease (50%) in infractions identified (poaching, fuelwood harvest) per man-day of patrol; and
(f) increase in employment and income for local people related to project activities (community reserves, community-managed hunting areas, eco-tourism).

Project Outputs:

(a) systems for efficient project coordination, M&E, monitoring of social impact, and replication are put in place;
(b) selected key equipment and strategic infrastructure established;
(c) significant proportion (80%) of ICCN field staff in two key parks adequately trained, increased number of man-days performed in the field and staff performance management system in place;
(d) a strategy on sustainable financing mechanisms for the national PA system is developed;
(e) a conceptual framework for country-wide surveys of potential new PAs established; and
(f) identification and mapping of estimated 10 million hectares of new protected areas completed.

**12. Ethiopia: Sustainable Development of the Protected Area System (UNDP)**

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|---|---|
| Focal Area/OP/Strategic Priority: | Biodiversity/OP 1,2,3,4/ SP1 |
| Local executing agency: | MOFED and GTZ-IS |
| Total Cost of the Project: | $31.75 million |
| GEF Funding Request: | $9.00 million (+ PDF of $318,000) |

Rationale & Objective:
Historically Ethiopia's national protected area system has not been a priority for government. However, recent policy and legislative developments in Ethiopia have brought protected areas and sustainable use of natural resources to the forefront of Ethiopia's development agenda. The goal of this full project is to improve the conservation and management of Ethiopia's Protected Areas through a tranched approach. The first tranche will develop institutional capacity and pilot field models for sustainable protected area management. The second will consolidate the models and replicate them in selected priority individual protected areas. The project expects to receive a significant amount of co-financing from a private sector institution, the Africa Parks Conservation Company.

Project Outcomes:

(a) protected areas mainstreamed in the development framework of Ethiopia;
(b) appropriate policy, regulatory and governance frameworks in place;
(c) institutional arrangements and capacity for protected area planning and management developed;
(d) new protected area management options and partnerships piloted, and replicated through partnerships catalyzed across protected area estate; and
(e) financial sustainability plan developed and demonstrated.

Project Outputs:

(a) a 10% increase in the METT scores32 across the protected area system by the end of the first phase; and
(b) the protected area system will ensure adequate (≥ 7%) representation of all ecosystems in the country by 2015.

## 13. India: Biodiversity Conservation and Rural Livelihoods Improvement (World Bank)

Focal Area/OP/Strategic Priority: Biodiversity/OP3-Forest Ecosystems/SP1-Catalyzing Sustainability of Protected Area Systems/SP2-Mainstreaming Biodiversity in Production Landscapes and Sectors
Local Executing Agency: Ministry of Forest and Environment and state forestry departments.
Total Cost of the Project: $51.43 million
GEF Funding Request: $11.50 million (+ PDF-B of $330,000)
Key Indicators:

- Increased management effectiveness of 1,500,000 hectares of protected areas.
- At least 40% Reduction in dependency (fuelwood collection, grazing, etc) on PA resources.
- At least 120,000 ha of targeted production lands across eight landscapes are managed for conservation outcomes measured by increased vegetation cover and key indicator/umbrella species stable or increased.
- At least 20% of targeted populations in selected landscapes have improved livelihoods.
- At least 50% of targeted institutions show improvement in Institutional Maturity measured through Institutional Maturity Index (IMI)[5].
- At least 10% of Central and State Conservation Funding Schemes supporting landscape approaches

Rationale & Objective:
India is one of the twelve *megadiversity* countries in the world that collectively account for 60-70 percent of the world's biodiversity. As well as being a centre of high species richness and endemism, India is a centre of agrobiodiversity with at least 166 species of crop plants and 320 species of wild relatives of cultivated crops.

The biodiversity of India is under immense pressures. Unmanaged livestock grazing, indiscriminate cutting of trees for fuel and timber, unsustainable gathering of non-timber forest products, hunting, uncontrolled fires, and the haphazard conversion for agriculture, infrastructure, industrial and commercial development are a major threat to India's biodiversity. Similarly, pollution, siltation and spread of invasive alien plant species are a major threat to the freshwater, coastal and marine habitats within the country. The country's high level of human population density and growth, high incidence of poverty and large number of livestock accelerate the speed of degradation. Many local people are highly dependent on forests and other natural resources but with limited rights of access, have little incentive to use natural resources in a sustainable way.

The Government of India has demonstrated a strong commitment to conservation and has established a network of more than 500 protected areas across different ecosystems and

[5] The IMI enables the community and other institutions to carry out an assessment and grade the institution for inclusiveness in decision making, mechanisms to ensure equity, transparency, management of accounts, book – keeping and monitoring.

bioregions. However, these protected areas are largely managed as "islands" surrounded by other forms of land uses that are often not compatible with conservation goals and outcomes. At the same time, there are extensive areas of remaining natural habitats, especially forests that harbor rich biodiversity surrounding the existing protected areas network that are currently not managed for conservation outcomes.

The proposed project will strengthen management and viability of core protected areas by seeking to influence development and conservation in lands surrounding these high biodiversity areas by promoting rural livelihoods and integrating conservation concerns in lands surrounding the core protected areas. The proposed project will build on past participatory conservation successes by expanding conservation efforts to the landscape level, and integrating rural livelihoods with strengthened protected area management and more biodiversity-friendly development in the surrounding production landscapes. The project would include an explicit component for promoting learning networks, distilling and disseminating lessons learned and encouraging replication of successful participatory conservation management to other protected areas and biodiversity-rich landscapes elsewhere in India. The project development objective is to strengthen and mainstream biodiversity conservation at the landscape level by improving rural livelihoods, participation, learning and replication. The project global environment objective is to enhance conservation of globally significant biodiversity and ensure its long-term sustainability by promoting participatory conservation mechanisms in biodiversity-rich landscapes.

Project Outcomes:

(a) successful conservation models scaled up to the landscape level;
(b) awareness raised on the values of biodiversity goods and services and their relevance to the development agenda;
(c) linkages between conservation and poverty alleviation, in both conservation and production landscapes promoted and established;
(d) biodiversity mainstreamed into policy and development programs at regional and national levels; and
(e) participatory conservation mechanisms replicated to other PAs and biodiversity – rich landscapes nationally.

Project Outputs:

(a) participatory management plans in 12 PAs adopted on the basis of ecological considerations;
(b) management plans for at least 20 forest reserves adjoining PAs integrating and adopting conservation outcome practices;
(c) at least ten enabling frameworks and guidelines developed/revised and adopted; and
(d) at least 10 new sites/landscapes adopting conservation best practices developed by the project.

**14. Indonesia: Fisheries Revitalization Project (World Bank)**

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|---|---|
| Focal Area/OP/Strategic Priority: | Biodiversity/OP2-Coastal, Marine and Freshwater Ecosystems/SP2-Mainstreaming Biodiversity in Production Landscapes and Sectors (primary)/SP1-Catalyzing Sustainability of Protected Areas (secondary)/SP4-Generation and Dissemination of Best Practices for Addressing Current and Emerging Biodiversity Issues (secondary) |
| Local executing agency: | Ministry of Marine Affairs and Fisheries |
| Total Cost of the Project: | $95.00 million |
| GEF Funding Request: | $8.00 m |
| Key Indicators: | Conservation is mainstreamed into the fisheries production sector, specifically through the conservation of over 1,000,000 ha of critical coastal habitats. The protected area system is strengthened, through the establishment of marine turtle habitat reserves, and a target of at least 20 million ha of landscapes and seascapes contribute to biodiversity conservation or the sustainable use of its components. |

Rationale & Objective:
Coastal fisheries have generally reached their limits and increased production and incomes from these resources is likely limited. Households in rural coastal and fisheries communities have a greater opportunity to improve their livelihoods by increasing and enhancing the production of alternative coastal and fisheries commodities (e.g. seaweed, ornamental fish, pearls, grouper, cultivated fish) than by continuing to exploit capture fisheries alone. The proposed FSP would address the poverty-environment nexus in the coastal sector of Indonesia, by empowering and where necessary organizing rural coastal and fisheries communities to both: (i) work together with the private sector and government-supported services to increase the volume and value of coastal commodity production, and (ii) collaborate with government institutions to sustainably utilize and manage coastal ecosystems and fisheries resources. The project will support rural coastal and fisheries communities to both expand jobs and economic growth by diversifying out of capture fisheries into the production of other coastal commodities. Simultaneously, communities will be empowered to rehabilitate and sustainably manage the fisheries resources for those who continue to fish, and to protect the ecosystems upon which they depend.

The Project Objective is to promote improved conservation of critical coastal habitats and the globally significant species depending on them, throughout Indonesia; and to reduce poverty in rural coastal and fisheries communities in participating districts, by increasing coastal and fisheries commodity-based economic growth and diversification, and developing a system for sustainable utilization and collaborative management of coastal fisheries resources and ecosystems.

Project Outcomes:

(a) improved welfare and livelihoods in rural coastal and fisheries communities;
(b) increased growth and development of coastal commodity-based industries;

(c) improved system for the utilization of coastal resources; and
(d) improved conservation of critical coastal habitats and flagship species dependent on these habitats.

Project Outputs:

(a) critical coastal habitats in participating districts documented and prioritized;
(b) capacity of district government built;
(c) participatory decision-making and planning mechanisms for prioritized areas developed;
(d) marine conservation areas established for critical coastal habitats;
(e) participatory monitoring of ecological and social impacts of marine conservation areas developed and implemented;
(f) post-project financial and institutional strategy for management of marine conservation areas developed;
(g) key turtle conservation sites identified and prioritized in Indonesia;
(h) a Detailed Implementation Plan (DIP) for the National Turtle Conservation Strategy developed;
(i) awareness and advocacy campaigns for marine turtle conservation implemented;
(j) local self-sustained management plans for key turtle conservation sites developed and implemented;
(k) good practices in turtle conservation across the targeted sites implemented and replicated;
(l) simple methods for local monitoring of marine turtle trends and threats developed and implemented;
(m) staff training and student monitoring programs conducted;
(n) technologies and practices to reduce marine turtle by-catch in targeted districts promoted.

**15. Jordan: Integrated Ecosystem and Natural Resource Management in the Jordan Rift Valley (World Bank)**

Focal Area/OP/Strategic Priority: Biodiversity/OP1, 12, 15/SP1/SP2
Local Executing Agency: Royal Society for the Conservation of Nature
Total Cost of the Project: $12.60 million
GEF Funding Request: $6.15 million (+ PDF of $350,000)
Key Indicators:
The project would contribute to the underpinning of the sustainability of the protected areas (PA) system; i.e. 56,950 hectares of new PAs established more effectively managed for strategic priorities and 7 land use management plans (LUMP) with biodiversity conservation and integrated ecosystem practices incorporated into the plans.

Rationale & Objective: The Jordan Rift Valley holds many large and internationally important ecosystems, including desert, mountains, wetlands, sea and forest. At the same time, it is a major fly way between Africa and northern Europe used by millions of migrating birds each year. Its critical geographical location, combined with the most productive agricultural land resources in Jordan has made it a focal area for development and land conversion that threatens its unique ecological and cultural values.

The proposed project is a joint effort between the Government of Jordan, the GEF and the World Bank to support the conservation and sustainable development of the Jordan Rift Valley area. The project development objective is to mainstream integrated ecosystem management (IEM) practices in the Jordan Rift Valley pilot areas. The project aims secure the ecological integrity of the Jordan Rift Valley, as a globally important ecological corridor and migratory flyway, through a combination of integrated land use planning, ecologically appropriate and nature-based socio-economic development, and biodiversity protection and management. The GEF-financed part would support the mainstreaming of biodiversity in production landscapes and sectors, and catalyzing the sustainability of protected areas.

Project Outcomes:

(a) biodiversity conservation measures introduced into land use planning in the Jordan Rift Valley;
(b) standard of living of local communities in the vicinity of the protected areas improved through biodiversity friendly alternative livelihoods;
(c) biodiversity management capacity enhanced in the four protected areas: Yarmouk, Fifa, Mas'uda, & Qatar;
(d) mechanisms for sustainable financing of biodiversity conservation in place for the four PA; and
(e) institutional strengthening and enhanced stakeholder capacity for integrated ecosystem management practices.

**16. Kazakhstan: Conservation and Sustainable Use of Biodiversity in the Kazakhstani Sector of the Altai-Sayan Mountain Ecoregion (UNDP)**

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| Focal Area/OP/Strategic Priority: | Biodiversity/OP4-Mountain Ecosystems/SP1- Catalyzing Sustainability of Protected Area Systems |
| Local Executing Agency: | Ministry of Agriculture, Forestry and Hunting Committee |
| Total Cost of the Project: | $18.759 million |
| GEF Funding Request: | $2.396 million (+ PDF-A of $25,000) |

Key Indicators:

- The project will catalyze increased management effectiveness and sustainability in 718,517 ha of protected areas in the Kazakhstani sector of the Altai-Sayan ecoregion.
- In addition, the project will indirectly influence around 14,268,000 ha of protected areas through up-scaling of regulatory models and replication of best management practices.

Rationale & Objective:

Kazakhstan has made great strides in securing biodiversity through protected areas and currently the National Protected Area System (NPAS), comprises 107 sites of various IUCN management categories that cover nearly 14.5 million ha. The Kazakhstani protected area system is confronted by a number of threats and barriers which undermine the effectiveness of biodiversity conservation efforts in the PAs, and thus its own sustainability, and detract from the attainment of the long-term national environmental, social and economic benefits that would accrue from an effectively established and managed national PA system. The threats include the loss, fragmentation and degradation of valuable habitats, especially in montane forests, as a result of fires, unsound forestry operations and illegal logging, unorganized and uncontrolled tourism and recreation, weakly controlled construction of infrastructure in sensitive and important habitats, and waste, littering and other forms of pollution, as well as the loss of significant species, as a result of poaching and illegal trade in endangered species, the intensive collection and use of NTFPs, and unregulated hunting-based tourism. The project addresses the threats and barriers to the efficient management of Kazakhstan's national protected area system by focusing upon a sub-system of protected areas in the Kazakhstani sector of the trans-boundary Altai-Sayan ecoregion.

The goal of the project is to help secure the globally significant biodiversity values of the Kazakhstan. The objective of the project is to enhance the sustainability and conservation effectiveness of Kazakhstan's National PA system through demonstrating sustainable and replicable approaches to conservation management in the protected areas in the Kazakhstani sector of Altai-Sayan ecoregion (KASE).

Project outcomes:

(a) The protected area network is expanded and PA management effectiveness is enhanced;
(b) Awareness of and support for biodiversity conservation and PAs is increased among all stakeholders;
(c) The enabling environment for strengthening the national protected area system is enhanced;

(d) Community involvement in biodiversity conservation is increased and opportunities for sustainable alternative livelihoods within the PAs and buffer zones are facilitated;
(e) Networking and collaboration among protected areas is improved, and the best practices and lessons learned are disseminated and replicated in other locations within the national protected area system**.**

Project Outputs:

(a) New protected areas are established and boundaries of existing ones are adjusted to improve their long-term conservation effectiveness.
(b) Organizational structures, staffing standards and performance accountability are improved.
(c) Operational capacity of PAs is enhanced to conduct broadly consultative processes for conservation management planning.
(d) Project Communications Strategy that includes specific content targeted at individual
(e) sectors such as forestry, construction and tourism.
(f) Biodiversity awareness raising opportunities will be provided to employees of relevant government departments and agencies, PA staff, environmental inspectors, forestry workers, travel agencies and tour operators, local communities and the construction and transportation sectors
(g) Visitor/community information centers are established, and designed as multi-function facilities.
(h) Essential enabling legislative and regulatory reforms are facilitated.
(i) Oblast Akimat PA Advisory Council is established to improve coordination and collaboration among all stakeholders in PA management.
(j) The project will support the development of bilateral (Russia and Kazakhstan) agreements (MoU) on actions for the conservation of rare and endangered species, important border habitat protection, and migratory corridors.
(k) Sustainable alternative livelihood options are facilitated through demonstration projects at selected sites.
(l) Ecology and guide/ranger training camps for children and youth respectively are organized and operated.
(m) The project will support the development of community based NGOs in the KASE that work in raising public biodiversity awareness.
(n) Community Conservation Councils to engage the direct involvement of local communities in PA planning and management.
(o) Establishment of a national training facility for PA managers and staff.

**17. Serbia & Montenegro: Transitional Agriculture Reform Project (formerly called In-Situ Agrobiodiversity Conservation Project) (World Bank)**

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| Focal Area/OP/Strategic Priority: | Biodiversity/OP4 and OP13/SP2: Mainstreaming Biodiversity in Production Landscapes and Sectors |
| Local Executing Agency: | Ministry of Agriculture, Forests and Water Management |
| Total Cost of the Project: | $37.15 million |
| GEF Funding Request: | $4.50 million (+ PDF of $340,000) |
| Key Indicators: | Improved ecological management of Stara Planina Nature Park (142,000 ha); biodiversity and sustainable natural resource use incorporated in major agriculture/rural development program; ca. 30,000 ha of grasslands under sustainable grazing. |

Program Rationale & Objective:
The project will support implementation of the Government of the Republic of Serbia (GRS) ambitious reform program for improving the business environment and its plan for achieving EU membership by 2013. The GRS prioritizes agriculture and rural development as areas where Serbia has a comparative advantage and for poverty reduction, as poverty is highest in rural areas. The government provides generous financial support for the sector, but the effectiveness of this support is limited by an inefficient and non-transparent delivery system and a lack of knowledge, particularly among private small scale farmers and processors, regarding new technologies and how to meet the standards and requirements of an increasingly competitive regional market. Harmonization with EU requirements involves improving environmental management and sustainable rural development, particularly in marginalized ("less favored" rural areas. In this context, the project will support biodiversity conservation in the West Balkan Mountain Range (Stara Planina), a transboundary area shared by Serbia and Bulagra, which is one of six temperate centers of biodiversity in Europe.

The Project Development Objective of this fully blended IBRD/GEF project is to assist the Government of the Republic of Serbia (GRS) to establish an efficient system for providing support to the agri-food sector to enhance its competitiveness and to enhance Serbia's capacity to absorb EU funds for agriculture and rural development. The Global Environment Objective is to conserve ecological systems, agro-biodiversity and wild biodiversity in the production areas of the Stara Planina Nature Park. The incremental GEF funds will help to integrate these global objectives into agriculture and rural development in the target area.

Project outcomes:
The main outcomes of the project will include:

(a) an efficient, transparent and "EU-compatible" rural development payment system;
(b) an increase in the number of farmers and agricultural processors adopting modern methods and selling their products in the regional market;
(c) a significant increase in the use of rural development grants for agri-environmental activities and for sustainable rural tourism;

(d) an increase in the number and size of herd sizes of targeted autochthonous livestock breeds; and

(e) restoration and maintenance of priority biodiversity-rich ecosystems within the SPNP, particularly alpine and sub-alpine meadows and grasslands.

**18. Seychelles: Mainstreaming Biodiversity Management into Production Sector Activities (UNDP)**

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| Focal Area/OP/Strategic Priority: | Biodiversity/OP2-Marine, Coastal and Freshwater Ecosystems/SP2-Mainstreaming Biodiversity in Production Landscapes and Seascapes |
| Local executing agency: | Ministry of Environment and Natural Resources |
| Total Cost of the Project: | $11.733 million |
| GEF Funding Request: | $3.7 million (+ PDFs of $300,000M) |
| Key Indicators: | Increase in production area under effective conservation management: EOP Target: 41,400km$^2$ |

Rationale & Objective:
The project will build the adaptive management capacities needed to integrate biodiversity management into production sectors to forestall the negative impacts associated with a projected increase in ambient threats to biodiversity from production activities. The project will directly address conservation needs in the two main production sectors – artisanal fisheries and tourism. Co-management models in fisheries will be developed for: a) the artisanal trap fisheries around the granitic islands, and; b) for the demersal line fisheries that go out to the limits of the submerged Mahé Plateau. These two fisheries suffer from over-fishing, are important for biodiversity and employ over ¾ of all artisanal fishers. The tourism component will cover all tourism operators throughout the Seychelles and will involve: a) adoption of international environmental standards for tourism operations, and b) investments by tourism operators in biodiversity management of ecologically sensitive sites – both gazetted and non-gazetted.

The Project Objective is to integrate biodiversity objectives into key production sectors of the economy.

Project Outcomes:

(a) enabling conditions for mainstreaming biodiversity management within and across sectors are strengthened;
(b) methods and means for integrating biodiversity and artisanal fisheries management are in place; and
(c) the tourism industry is addressing biodiversity conservation needs as part of good practice in business operations.

Project Outputs:

(a) information and knowledge management capacity for biodiversity mainstreaming is developed;
(b) Land, Water and Coastal Use Plans integrating biodiversity priorities developed and implemented for all Islands;
(c) stakeholders are effectively engaged in mainstreaming biodiversity;
(d) pilot co-management systems are developed for artisanal fisheries;
(e) capacity to replicate and adapt the piloted management systems is developed and applied to new areas;
(f) a tourism sustainability label and Environmental Management Systems will be adopted by tourism operators;

(g) incentives and sustainable financing for mainstreaming of biodiversity in the tourism sector are in place; and

(h) joint management systems involving tourism operators developed for biodiversity conservation of ecologically sensitive areas.

**19. Sierra Leone: Wildlife Protection and Biodiversity Conservation Project (World Bank)**

Focal Area/OP/Strategic Priority: Biodiversity/ OP1,3, and 4/SP1
Local Executing Agency: National Commission on Environment and Forestry
Total Cost of the Project: $16.95 million
GEF Funding Request: $5.00 million (+ PDF of $350,000)
Key Indicators:

- 300,000 hectares of selected protected areas with improved effective management (from 20% to 70% by EOP using the GEF SP1 Tracking Tool) compared with baseline conditions.
- One (1) Forest Reserve (the 77,300ha Gola Forest Reserve and Tiwai Island Forest) upgraded to Strict Nature Reserve status by EOP.

Rationale & Objective:
Sierra Leone has suffered from dramatic economic decline, social inequalities and political instability during the 1990s as a result of a brutal armed conflict. Consequently there has been significant biodiversity loss in the country. Deforestation is pervasive and continues unabated at approximately 2 percent per annum. The problem is human-induced and agriculture has been identified as the main cause of deforestation and land degradation.

The Government of Sierra Leone has proposed to strengthen and consolidate its system of wildlife protection and biodiversity conservation through establishment and strengthening of protected areas system by combining their protection and management to improve the quality of life of the communities who are reliant upon these areas. Significantly, conservation of biodiversity through mainstreaming protected area management and conservation of wildlife and biodiversity into local, regional and national development planning and implementation has been identified by key stakeholders in the country as the only sustainable option for ecosystem development and biodiversity conservation in Sierra Leone. In response to these needs, the proposed project is aimed at improvement of sustainable protected area management and biodiversity conservation within Sierra Leone while contributing to socio-economic development of beneficiary communities.

Project Outcomes:
The proposed project will aim to:

(a) improve the integrity of selected critical protected areas and ecological functions through strengthening management of protected areas and elimination of risks from uncontrolled, non-conforming activities such as logging and mining;
(b) enhance biodiversity protection within PAs and adjacent landscapes;
(c) ensure the conservation of genetic diversity within and outside PAs that rural people traditionally use for medicinal and consumptive purposes (medicinal plants, wood fuel, bush meat); and
(d) Enhance the sustainable use of biological resources.

Project Outputs:
The project will achieve the above outcomes through implementation of following components and outputs:

(a) strengthening institutional, legislative, and policy framework for natural resources management;
(b) capacity development at national and local levels;
(c) improving management of selected sites of high-biodiversity importance;
(d) sustainable funding for long-term wildlife protection and biodiversity conservation and creating alternative sources of livelihood; and
(e) promoting public education and awareness about the importance of biodiversity and the benefits for its conservation and sustainable use.

**20. Uruguay: Catalyzing the Implementation of Uruguay's National Protected Area System (UNDP)**

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| Focal Area/OP/Strategic Priority: | Biodiversity/OP 1, 2, 3, 4/SP-1 |
| Local Executing Agency: | National Environment Agency (DINAMA) |
| Total Cost of the Project: | $9.546 million |
| GEF Funding Request: | $2.50 million (+ PDF of $343,000) |
| Key Indicators: | 92,500 additional hectares will be incorporated in the NPAS at the end of the Project and 641,000 hectares included in the 10 year plan and with specific strategies for implementation. |

Rationale & Objective:
The proposed project will support Uruguay in overcoming the barriers to designing and implementing a National System of Protected Areas that effectively conserves a representative sample of Uruguay's biodiversity. The proposal is consistent with the country's socio-economic context, and facilitates the integration of Protected Areas (PA) with other relevant territorial, social, economic, and institutional frameworks and systems.

The strategy proposed is to support the legal and policy reforms started by the Government of Uruguay through a two pronged approach that combines capacity building and testing of various management approaches in a number of field demonstration sites. On site interventions will enable ground proofing of the new legal and policy frameworks, testing and developing tools for enhancing PA management effectiveness and hosting training and educational activities.

As the long term sustainability of the NPAS will depend on the country's ability to secure sufficient financial resources to meet the management costs of the PA, financial issues have been addressed as cross-cutting components. The project takes into account land tenure characteristics of Uruguay and recognizes the role that private reserves, multi-use management categories, and collaborative and decentralized management approaches will have in the PA system.

Project Outcomes:

(a) legal, policy and institutional frameworks that encourage effective management and sustainable financing for the NPAS are in place and operational;

(b) key stakeholders directly involved in PA management have the appropriate balance of knowledge and skills required for effectively running the NPAS and its constituent PAs; Increased awareness on the values of protected areas and their importance for sustainable development influences policies and practices; and

(c) know-how on cost-effective management structures is expanded and reinforced through field demonstrations of different PA governance structures based on decentralized management approaches.

## 21. Venezuela: Expanding Partnerships for the National Parks System (World Bank)

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| Focal Area/OP/Strategic Priority: | Biodiversity/OP3-Forest Ecosystems/OP4-Mountain Ecosystems/SP1- Catalyzing Sustainability of Protected Area Systems |
| Local Executing Agency: | Ministry of the Environment and Natural Resources (MARN) and the Venezuelan National Parks Institute (INPARQUES) |
| Total Cost of the Project: | $24.87 million |
| GEF Funding Request: | $6.00 million (+ PDF of $350,000) |

Key Indicators:

- 3 million has of Canaima National Park (CNP[6]) with improved management effectiveness (from 50 percent to 75 percent by EOP using the GEF SP1 Tracking Tool).
- 12,000 hectares in the most threatened parts of CNP under improved habitat preservation management (as measured by reduced incidence of fire and slash and burn practices).
- Rate of deforestation in core conservation areas reduced to 0.5 percent/annum (from baseline rate of 0.7 percent).

Rationale & Objective:

Canaima National Park (CNP), located in Bolivar State in southeastern Venezuela and spanning 3 million hectares, harbors nearly 120 endemic genera, 2 endemic families and 117 endangered species (Huber, 1997). CNP's massive table-top mountains, known as *tepuis*[7], were classified by Dinerstein *et. al* (1995) as one of two Globally Outstanding and Relatively Intact ecoregions in Latin America.[8] Additionally, CNP accounts for 45% of the hydric resources of the Caroní River, the most important hydroelectric resource in Venezuela. Although 85% of CNP is comprised of pristine natural habitats with relatively intact vegetation, Canaima faces a wide range of pressures and threats to its unique biodiversity and fragile ecosystems. Key threats include roads, growing local and international tourism, deforestation, mining and colonization. Furthermore, the Venezuelan Parks Institute (INPARQUES) has had to undertake the task of managing an area 50% larger than El Salvador and equal to Belgium with scarce financial resources and a poor institutional presence. Clearly, an effective management model is essential to integrate two key stakeholders (the Pemon indigenous communities and CVG EDELCA), leverage substantial financial and institutional resources in a coordinated manner, and counteract the ongoing degradation of CNP's globally outstanding biodiversity.

The Pemon are the indigenous group in whose ancestral lands the project area is located. Indigenous inhabitants in CNP are estimated at 18,500, 95% of which belong to the Pemon culture. Key priorities for the Pemon, identified in a recently drafted Life Plan (*Plan de Vida)* are to

[6] In this document, Canaima National Park (CNP) is defined as the Park contained within strictly defined boundaries and its buffer zone, to be defined during first year of project execution.

[7] The *tepui* formations are abrupt, rocky mountains reaching heights of between 800 and 3,015 feet above sea level. Given the region's warm and moist climate, these formations harbor unique ecosystems that are distinct from those of other tropical mountains due to their high number of endemic species. Thus, a *tepui* is a physical and biological unit containing unique species and ecosystems.

[8] Along with the Japura Negro moist forests in Amazonia, cited in Dinerstein et.al, *A Conservation Assessment of the Terrestrial Ecoregions of Latin America and the Caribbean* (1995), The World Bank, p. 24.

conserve their lands' natural resources, improve quality of life by enhancing sustainable production alternatives and obtain titles for their indigenous lands. Recent land demarcation and titling efforts have been supported by provisions in the 1999 National Constitution, subsequent laws regulating collective territorial ownership (including the Guaicaipuro Mission), and support from NGOs such as TNC.

CVG EDELCA, Venezuela's largest government-owned hydroelectricity company, produces 70 percent of the country's energy needs and exports energy to Brazil. The Guri hydroelectric facility, the second largest in the world, is sourced by the Caroní River. CVG EDELCA, in accordance with its social responsibility strategy, is cognizant that it must work together with the Pemon in order to maintain its energy production on the Caroní watershed. In recent years, CVG EDELCA has invested in local conservation and has undertaken an ambitious social investment program for the Pemon (the Mayú program), seeking to guarantee the long-term water abundance and quality supplied by CNP's well-preserved watersheds.

In a landmark Inter-Institutional agreement signed between INPARQUES, CVG EDELCA and the Pemon's indigenous organization (FIEB), the three stakeholders have formally agreed to cooperate around the common objective of preserving CNP's biodiversity, ensuring its environmental services and supporting Pemon quality of life improvements. This agreement and subsequent meetings held between the three organizations denote a growing level of trust on the part of the Pemon and a growing willingness on the part of CVG EDELCA and INPARQUES to integrate the Pemon into a more effective and participatory governance system.

The Project would build upon this historical achievement and develop a participatory co-management model for CNP and seek to replicate a PA co-management scheme to other National Parks in Venezuela. The Project Development Objective is to implement an effective co-management model in Canaima National Park (CNP) supporting sustainable natural resource use practices and preserving cultural and biological diversity. The Global Environmental Objective is to ensure conservation and sustainable use of CNP's globally important biodiversity.

Project Outcomes:

(a) increased management effectiveness of CNP;
(b) strengthened institutional capacity; and
(c) Pemon communities participating actively in CNP management and in conservation and sustainable natural resource use programs, incorporating their ancestral vision.

Project Outputs:

(a) CNP Management Plan, with significant input from Pemon communities;
(b) financial strategy contributing additional diversified funding for CNP;
(c) CNP monitoring system, providing key inputs related to biodiversity and natural resources, socio-economic variables and Park management effectiveness;
(d) essential infrastructure provided for the Park;
(e) 9,000 hectares under comprehensive threat prevention programs and 8 pilot restoration programs;

(f) 800 Pemon trained business administration, natural resource management, ecotourism, monitoring, and related themes;
(g) 12 productive projects (i.e. ecotourism and agro forestry) executed and meeting social, ecological and economic sustainability criteria;
(h) 20 training programs for key CNP stakeholders and personnel; and
(i) an environmental education program, with 1,000 beneficiaries trained.

**Biosafety**

**22. Regional (Mexico, Columbia, Costa Rica, Peru, Brazil): Latin America: Multi-country Capacity-building in Biosafety (World Bank)**

Focal Area/OP/Strategic Priority: Biodiversity-Biosafety/OP1, 2, 3, 4, 15/SP3
Local Executing Agency: International Center for Tropical Agriculture
Total Cost of the Project: $16.01 million
GEF Funding Request: $5.00 million (+ PDF of $260,000)
Key Indicators:
Adopted and are using standardized biosafety risk assessment and risk management mechanisms developed by the project. Targeted communicators, opinion-makers and the general public have increased science-based awareness and understanding of biosafety. Networks to promote inter-country and inter-institutional cooperation on biosafety and the environment are established among the five participating countries.

Rationale & Objective:
All five countries have established legal frameworks for implementing the CP; with GEF financing, they will be able to implement the safeguard aspects.

The project's multi-country design maximizes economies of scale by exploiting the comparative advantages of participating countries and designated specialist entities as either net donors/providers or net recipients of capacity. At completion, it is expected that all five countries will have a more transparent and predictable regulatory environment, and enough capacity and effective coordination between the responsible agencies/entities to assess and manage risks, costs and benefits associated with the use and trans-boundary movement of LMOs, and to contribute to a better-informed public discourse. The proposed project is consistent with the World Bank's Country Assistance Strategy (CAS) objectives for the five countries, which show marked similarities across development pillars and sector goals, seeking, inter alia, to harmonize inclusive economic growth with environmental sustainability.

Project Outcomes:

(a) adoption and use by all targeted institutions in the five countries, of standardized biosafety risk assessment and risk management mechanisms developed by the project;

(b) increased science-based awareness and understanding of biosafety on the part of targeted communicators, opinion-makers and the general public; and

(c) networks established among the five participating countries to promote inter-country and inter-institutional cooperation on biosafety and the environment.

**23. Regional (Benin, Burkina Faso, Mali, Senegal, Togo): West African Regional Biosafety Project (World Bank)**

Focal Area/OP/Strategic Priority: Biodiversity-Biosafety/OP1, 2, 13/SP3
Local Executing Agency:
Total Cost of the Project: $21.52 million
GEF Funding Request: $5.40 million (+ PDF of $700,000)
Key Indicators:
All five participating countries will have aligned national biosafety safeguards, regulations, and the like to regulate and monitor the use of specific modern biotechnologies (mainly cotton) and respond to gene/pollen flows and invasiveness by the end of the project. One or more countries will have aligned national policies, regulations, and the like to regulate the commercial release of transgenic cotton by the end of the project. Regional biosafety legal framework and regional risk assessment and management methods will be implemented by the end of the project with the strong coordination by a regional body (WAEMU). Three or more countries will have "regulatory" field trials on agricultural products using science based risk assessment and management methods developed by the project. .

Rationale & Objective: The project will assist the beneficiary countries in implementing a biosafety regulatory framework that will ensure safe field trials and commercial release, if proven safe, of transgenic cotton and other transgenic crops. This objective will be achieved by establishing an enabling regulatory environment, by capacity building, and by public outreach to meet not only the requirements of the Cartagena Protocol on Biosafety (CPB), which all five countries have ratified, but also other international obligations relevant to biosafety.

The global environment objective of the project is to protect regional biodiversity against the potential risks associated with introduction of LMOs that could eventually be released into the environment. This will be achieved through the development of common science–based, internationally accepted methods for risk assessment and management in the approval process of modern LMO biotechnologies. A particular attention will be given to gene transfer to related and unrelated organisms, pest resistances and effects on non target organisms. The project will initially benefit the West Africa Economic and Monetary Union (WAEMU) region (actually a smaller scale subregional entity), and offers a potential for scaling up to the level of the Economic Community of West African States (ECOWAS).

Project Outcomes:

(a) adaptation and dissemination of regional methodologies to assess and manage risks;
(b) implementation of National Biosafety Frameworks; and
(c) set up of biosafety and Intellectual Property Rights (IPR) legal frameworks among beneficiary (WAEMU) countries and monitor the impacts for the introduction of modern biotechnologies in the cotton sector in the WAEMU space.

**Climate Change**

**24. Global (Bangladesh, Bolivia, Niger, Samoa, Guatemala, Jamaica, Kazakhstan, Morocco, Namibia, Vietnam): Community-based Adaptation (CBA) Programme (UNDP)**

Focal Area/OP/Strategic Priority: Climate Change/SPA
Local Executing Agency: UNOPS
Total Cost of the Project: $9.535 million
GEF Funding Request: $4.525 million (+ PDF of $484,000)
Key Indicators:

- Reduction to vulnerability to climate change including variability.
- Magnitude of global environmental benefits secured (using the Small Grant Program's Impact Assessment System (IAS)).
- Number of strategies adopted to address drought and other categories of vulnerability.
- Approval of Country Program Strategies (CPS) documents.
- Number of Country Based Adaptation (CBA) concepts submitted.
- Number of approved CBA projects.
- Number of policies and programmes adopted or adapted on the basis of CBA experiences.
- Number of policy makers engaged in the CBA.
- Number of lessons compiled and disseminated.
- Adoption or adaptation of practices piloted through the CBA.
- Existence of CBA web-site. Value of web-site.
- Existence of CBA global database. Value of CBA global database.
- Number of cases included in the Adaptation Learning Mechanism (ALM).
- Documented CBA experiences guide future GEF interventions on adaptation to climate change including variability.

Rationale & Objective: To enhance the capacity of communities in the pilot countries to adapt to climate change including variability.

Project Outcomes:

(a) enhanced adaptive capacity allows communities to reduce their vulnerability to adverse impacts of future climate hazards;
(b) national policies and programmes promote replication of best practices derived from CBA projects; and
(c) cooperation among member countries promotes innovation in adaptation to climate change including variability.

**25. Global: Solar Water Heating Market Transformation and Strengthening Initiative (Phase 1) (UNDP/UNEP)**

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|---|---|
| Focal Area/OP/Strategic Priority: | Climate Change/OP6/Market Transformation |
| Local Executing Agency: | |
| Total Cost of the Project: | $31.435 million |
| GEF Funding Request: | $12.00 million (+ PDF of $285,000) |
| Key Indicators: | million square meters of SWH installed, million dollars invested |

Rationale & Objective: Solar water heaters (SWH) for households and service industries have long been recognized as a cost-effective alternative to fossil-fueled water heaters and geysers. Through a suitable mix of policy and support schemes, they have reached broad consumer markets in a number of countries, for example, China and Turkey. In many other countries, their potential contribution to saving greenhouse gas emissions has not been tapped. This project tries to transfer the experiences and lessons from the more successful markets to countries that are interested in developing their SWH markets, thereby, effecting investments in 3 million square meters of SWH, or investments by homeowners and small businesses of SWH worth $900 million.

The program is also an experiment with respect to GEF procedures and knowledge management. A global program support component has the task of collecting and updating the global knowledge on market transformation for SWH. It will ensure that participating countries can learn from the latest experiences in terms of market transformation programs, but also from current technological developments and the global market situation. Each participating country has a nationally executed country program that delivers the support that is locally needed. The country programs are tailored to the market situation at program outset, which is facilitated by a standard program template and standard log frame that is delivered as part of the basis for the global program. The first phase, for which funding is sought now, covers six countries. In the second phase, further countries can join the program.

This project setup has several advantages.

(a) Firstly, it responds to the need for global market transformation for an important technology that has not received much GEF support in the past. The lack of support for SWH has actually been questioned in one of the Council responses to the programming document for the climate change program under GEF-4.

(b) Secondly, the project design integrates global knowledge management with national implementation, leading to a better and more consistent program.

(c) Thirdly, the setup provides cost savings. The project documents estimate that the global component saves around 20-30 percent as compared to stand-alone country programs, by making available, among other things, consolidated technical backstopping, shared help-desk functions, shared experiences and lessons as well as public awareness raising and marketing materials.

(d) Fourthly, the second phase allows countries to conduct a very cost-effective market transformation program with the limited resources available under small GEF-4 country allocations. Project preparation will be fast as countries can directly draw on the standard program template provided with this project. In addition, they can benefit from the global knowledge management component

which will ensure that they only use best practices and well targeted activities to develop their national markets.

**26. Regional (Senegal, Gambia, Guinea-Bissau, Mauritania, Cape Verde): Adaptation to Climate Change - Responding to Shoreline Change and its Human Dimensions in West Africa through Integrated Coastal Area Management. (UNDP)**

Focal Area/OP/Strategic Priority: Climate Change/SPA
Local Executing Agency: IOC of UNESCO
Total Cost of the Project: $13.81 million
GEF Funding Request: $3.3 million (+ PDF of $700,000)
Key Indicators:

- Number of newly planted, and rehabilitated coastal areas (in hectares).
- Length of coastline protected, measure of reduction in erosion rates (per month), sediment loads, number of channels constructed, vegetation coverage in pilot sites (in hectares), reduction in mangrove forest clearance in pilot sites, increase in forest cover area.
- Perceptions of efficacy and relevance of project outcomes, increases in household income, number and area extent of community conservation projects, number of households using new sources, number of stakeholder exchanges on climate change and coastal management.
- At least 25 information nodes (climate change and coastal management task force members, project staff, community members).
- Area coverage of coastal management systems, number of plans to address sea-level rise (and climate change), number of policies & programmes amended to include climate change concerns, and number of bilateral and multilateral adaptation relevant agreements.
- Number of new sand mining sites per year (before and after project).
- GIS products that have been stored in country-selected repositories for general use by stakeholders.
- Participation of governmental, private sector and community participants in workshops, number trained community members in management of coastal resources in the context of climate change and anthropogenic impacts.
- Awareness of results of monitoring (number of media announcements on climate change and impacts on coastal regions and sea-level rise).

Rationale & Objective:
The project seeks to mainstream adaptation to climate change into Integrated Coastal Area Management (ICAM) planning in the participating countries through the development and implementation of pilot adaptation activities in response to shoreline change. This will involve developing strategies, policies, and measures, based on technical and scientific information and appropriate policy instruments. A major preliminary objective will be to pilot adaptation activities in a local to sub-regional context. There is a strong rationale for addressing the issue of adaptation and shoreline change at the national level and through the development of a regional approach.

Project Outcomes:

(a) implemented pilot demonstration activities reduce climate and anthropogenic driven coastline erosion;

(b) integrating of adaptation into policies and programmes at a different levels; and
(c) monitoring and capacity building to increase the ability to plan for and respond to climate and coastal change.

**27. Regional (Ethiopia, Kenya, Malawi, Swaziland, Tanzania, Uganda, Sudan): Cogen for Africa (UNEP)**

| | |
|---|---|
| Focal Area/OP/Strategic Priority: | Climate Change/Operational Program 5 & 6 |
| Local executing agency: | Afrepren and various government agencies |
| Total Cost of the Project: | $67. 25 million |
| GEF Funding Request: | $5.25 million (+ PDF-B of $417,400) |

Rationale & Objective: Cogeneration, which is the simultaneous production of two different forms of energy (usually in the forms of heat and power) from a single energy system and source, is a highly efficient technique to provide electricity and heat to industries and the national grid. Moreover, when biomass residues from wood and agro-industries are used as fuel for cogeneration, the plant becomes a renewable energy system which, in many cases replaces the use of fossil fuel. The concept of cogeneration and its associated benefits have been proven in many regions of the world and modern technologies using high-pressure cogeneration systems exist in the global market. The Cogen for Africa Project will promote the concept of highly efficient cogeneration, focusing on the use of residues (wastes) from sugar factories and other agro-industries. By making modern high-pressure cogeneration a more widely spread option for agro-industries, the current power crisis in East Africa can be mitigated and the agro-industries will be able to better hedge against price risks on their respective commodity markets.

The project approach is modeled on a successful predecessor in the Asia region. The strengths of that approach have been extracted and adapted to suit the African context and business environment. A key model of success for this Project is the experience in Mauritius where its sugar industry uses the bagasse residues generated from the factories as fuel in high pressure cogeneration systems which allow the project owners to implement much higher capacities than what the factories need, thereby giving them opportunity to sell excess power to the grid. Today, the electricity produced by these cogeneration plants in the sugar industry is supplying close to 40% of the total consumption of the whole country.

Project Outcomes: The project will help establish technical capacity in the region and in the participating countries, including not only capacity building and focusing on cogeneration within existing institutions but also in the private sector. The project has a target to directly support the implementation of an additional of 40 MW of modern and efficient cogeneration capacity as Full Scale Promotion Projects (FSPPs) during the Project duration of six (6) years. These projects will act as showcases for convincing other potential project developers/owners of the technical reliability, economic viability and environmental soundness of more efficient cogeneration systems. The project will also provide advisory services to the interested industrial partners, and links with potential cofinanciers. It is expected that during the Project implementation another 20 MW of projects will have been directly supported through the provision of advice, services and training but which are not part of the FSPPs. These projects are expected to be under construction or at the advanced stage of project development at the end of the 6-year project period.

**28. Regional (Burundi, Kenya, Malawi, Mozambique, Rwanda, Tanzania, Uganda, Zambia): Greening the Tea Industry in East Africa (UNEP)**

| | |
|---|---|
| Focal Area/OP/Strategic Priority: | Climate Change/OP6, productive uses of renewable energy |
| Local Executing Agency: | East African Tea Trade Association |
| Total Cost of the Project: | $29.037 million |
| GEF Funding Request: | $2.854 million (+ PDF-B of $569,000) |

Rationale & Objective: Tea growing is an important source of revenue for many countries in East Africa. Tea plantations are typically located in hilly areas with secure rainfall. That is why tea factories are well suited to exploit hydrological resources for power generation, which is what this project intends to do.

As a result of the proposed project, tea factories in participating countries in Eastern and Southern Africa, under the East Africa Tea Trade Association (EATTA) will have access to clean and reliable electricity from small hydropower for their processing needs. This will substitute for expensive and unreliable electricity from the grid and diesel backup power. An accompanying activity will increase the efficiency of energy use in tea factories. Together these steps will reduce the cost of production and make the tea more competitive on the world market. Communities that neighbor tea factories can benefit from access to electricity generated by the small hydropower projects. Thus, the project will contribute to rural electrification in countries with among the lowest rural electricity access in the world, particularly where the government has policies to support private-public investment in rural electrification. Surplus power not used by the tea factories or for rural electrification will be available to the national grid where there is a supportive environment for private sector independent power producers (IPPs). By substituting for proposed addition of GHG intensive electricity, the project will partially mitigate the increasing trend of fossil-fuel based IPPs, and make a modest contribution to the greening of the power grids within the EATTA countries.

In order to demonstrate these advantages of hydropower in the tea industry, the project will support a number of demonstration projects with technical assistance. These demonstration projects will be selected so as to show different arrangements with respect to using surplus power (grid connection versus community connections), different country environment, and different organizational structures (e.g., sole owners vs. cooperatives). The project will thus establish investment confidence in small hydropower among investors and financial institutions, build technical capacity in the countries, create business models for public-private partnerships, and improve some regulations to facilitate the sales of surplus electricity, for example, with respect to licensing procedures and power purchase agreements.

**29. Regional (Kenya, Ghana): Lighting the "Bottom of the Pyramid" (World Bank/IFC)**

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|---|---|
| Focal Area/OP/Strategic Priority: | Climate Change/ OP5/CC-1, CC2, and CC-4 |
| Local Executing Agency: | N/A |
| Total Cost of the Project: | $12.15 million |
| GEF Funding Request: | $5.4 million |
| Key Indicators: | 10 percent market penetration of WLED-based lighting in the two countries and 3.9 million tons of $CO_2$ emissions will be avoided over 10 years |

Rationale & Objective:
The objective of the project is to accelerate the development of markets for modern electric lighting products to substitute for the fuel-based lighting widely used in the two countries. The technology focus will be on while light emitting diodes (WLEDs).

Project Components:
The project will implement a six-step process that will (i) reduce market entry barriers for suppliers, (ii) reduce consumer costs in adopting the products, and (iii) ensure the long-term sustainability and commercial viability of the market:

(a) form a private sector consortium;
(b) assess customer needs and preferences;
(c) identify new distribution channels;
(d) set parameters for WLED-based lighting products and foster competition;
(e) build institutions for market development; and
(f) exit.

Project Outcomes:
Lighting products sold as a result of this project will reduce reliance of un-electrified households and small businesses on carbon-intensive fuel-based lighting (kerosene, candles, and biomass). The alternative lighting products will also promote sustainable economic development by providing improved light quality at lower prices to communities that currently spend a disproportionate amount of their limited incomes on high cost fuels. Specific outcomes of the project include:

(a) at least 6 manufacturers entering the market;
(b) at least 12 of alternative products available in the market; and
(c) 190,000 WLED or other non-fuel lighting units purchased per year.

**30. Regional (Argentina, Bolivia, Brzil, Chile, Ecuador, Mexico, Panama, Peru, Venezuela): Regional Sustainable Transport Project (World Bank)**

Focal Area/OP/Strategic Priority: Climate Change/OP11/SP6
Local Executing Agency: **Argentina**: **Córdoba**: Municipality of Córdoba, **Posadas**: Municipality of Posadas, **Rosario**: Municipality of Rosario, **Tucumán**: Municipality of the City of Tucumán. **Brazil**: **Belo Horizonte**: Belo Horizonte City Administration, **Curitiba**: Urbanization Agency of Curitiba (URBS) and Institute of Urban Research and Planning of Curitiba (IPPUC), **Porto Alegre**: Municipality Secretary of Transport of the City of Porto Alegre, **Salvador**: Superintendencia de Engenharia de Tráfago Secretaria and Municipal dos Transportes e da Infra-Estructura Urbana. **México**: **Ciudad Juarez**: Instituto Municipal de Investigación y Planeacion M.C., **León**: Direccion General de Transporte Municipal de León, **Monterrey**: Cosejo Estatal de Transporte y Vialidad del Gobierno del estado de Nuevo León, **Puebla**: Secretaria de Communicaciones y Transportes del Gobierno del Estado Secretaria de Administración Urbana, Obras Publicas y Ecología.
Total Cost of the Project: $77.55 million
GEF Funding Request: $20.80 million (+ PDF of $375,000)
Key Indicators:

- 750,325 $CO_2$ equivalent tons per year as a result of the project's direct impact, and 38.8 million $CO_2$ equivalent tons per year as a result of indirect impact after modal split is achieved over 20 years.
- Number of trips in public transportation increase by 10 percent in intervened corridors compared to corridor baseline.
- Number of NMT trips increase by 5 percent in intervened areas compared to corridor baseline.

Rationale & Objective:
Latin American cities are rapidly growing and about 80% of the people currently live in urban areas and most of the vehicle kilometers of travel (VKT) occur there. Urban transport, therefore, represents a key sector for long-run GHG mitigation efforts in Latin America. The increased use of cars and motor vehicles not only generates additional GHG emissions, but also results in growing air pollution and associated health impacts, increased congestion, more accidents and reduced competitiveness of cities. While most cities still have a considerable share of walking and public transport trips, car ownership and use is expected to continue increasing with economic and population growth. In addition, cities in Latin America are expanding and sprawling rapidly as the mobility needs are being primarily satisfied by a growing reliance on motorized vehicles and poor public transit systems, further increasing emissions and reducing energy efficiency.

The objective of the project is to reduce GHG emissions through the promotion of long term modal shift to less energy intensive transport modes in Latin American cities, and remove barriers and induce policy changes for sustainable transport projects. The proposed GEF Grant will co-finance technical assistance and pilot investments aimed at removing existing barriers for climate friendly transport and land-use planning and activities aimed at achieving modal shift to cleaner transport and reducing average trip length. The project has been designed for a regional

strategic approach to promote enough critical mass and a widening and lasting support for sustainable transport policies and measures in Latin America.

Project Outcomes:

The project is designed to produce the following key outcomes:

(a) methodologies to improve assessment of greenhouse gas and local pollutant emissions as a result of sustainable transport measures developed. Data collection systems developed to track GHG emission reductions. Strengthened capacity and awareness of agencies involved in urban transport;

(b) improved regulatory framework to control fleet movements and standards at different jurisdictional levels. Improved quality and quantity of information about freight movements into and within specific urban areas to enable better management. Strengthened capacity of stakeholders to develop sound freight management plans to reduce GHG emissions. Reduced energy intensity of freight management;

(c) favorable legal conditions for transit oriented development. Available financial mechanisms, incentives to promote private sector participation;

(d) BRT developed and being implemented. Favorable regulatory conditions for public transport development. Strengthened institutional capacity to promote interconnectivity to other transport modes;

(e) increased public acceptance of cycling as mode of transport. Leveraged investments on NMT; and

(f) existence of regulatory framework to allow restrictions in circulation. Raised awareness of stakeholders towards use of car. Strengthened institutional capacity.

Project Outputs:

The project is designed to produce the following key outputs:

(a) methodologies to assess global benefits. Coordinated efforts from donors to maximize scarce international cooperation resources;

(b) guidelines to reduce GHG emissions from freight transport;

(c) basic methodologies to quantify GHG emission benefits from land use and transport interaction;

(d) experience to be disseminated worldwide. Improved methodology to assess GHG benefits;

(e) guidelines for the design of bikeways; and

(f) instruments to reduce vehicle usage.

**31. Regional (Fiji, Papua New Guinea, Solomon Islands, Micronesia, Marshall Islands, Vanuatu): Sustainable Energy Financing (World Bank/IFC)**

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|---|---|
| Focal Area/OP/Strategic Priority: | Climate Change/Operational Program 5/6, Improving access to local sources of financing |
| Local Executing Agency: | Fiji Ministry of Works and Energy (MWE); Fiji Electricity Authority (FEA); PNG Sustainable Energy Ltd. (PNGSEL); Central Bank of the Solomon Islands (CBSI), participating commercial banks. |
| Total Cost of the Project: | $31.08 million |
| GEF Funding Request: | $9.48 million |
| Key Indicators: | Co-financing for renewable energy and energy efficiency investments mobilized directly and an additional $21.2 million in local financing for renewable energy and energy efficiency investments leveraged. |

Rationale & Objective: The energy situation on the Pacific Islands is particularly precarious as all fossil fuels have to be imported from overseas. The interest for exploiting the local base of renewable energy is therefore very big. The proposed project intends to remove an important barrier for the increased use of renewable energy, which is the availability of commercial sector financing for renewable energy businesses and renewable energy use. To that end, the project will use a mixture of partial risk guarantees, market information and awareness measures and loans to incentivize local banks to lend for renewable energy and energy efficiency applications and businesses and support local businesses to develop and expand their renewable energy business. The project works closely together with UNDP's technical assistance effort in the same region.

Project Outcomes: During and after the project, the participating local financial institutions will start lending to medium and small enterprises and users of solar photovoltaic (PV) systems, pico-hydro systems, and coconut-fuelled power generation systems, as well as energy efficiency investments. The local banks will, thus, establish a profitable sustainable energy lending business.

Project Outputs: A sustainable energy risk sharing fund will be established. Technical assistance will strengthen the capacity of local financial institutions to service clients that wish to borrow to purchase solar PVs, pico-hydros or fuel switching equipment. Technical assistance will also strengthen business development of medium and small-size enterprises (spell out), and customers' and businesses' understanding of the operational aspects of the sustainable energy equipment to be purchased, including maintenance. The project will further include the users of the renewable energy equipment in the post-installation monitoring process and, therefore, provide feedback on the quality and performance of the supported technologies. The project intends to effect the sales of 21,000 small PV systems, 535 pico hydro systems, and fuel switching for 730 engines, i.e., a total of at least 22,625 transactions.

## 32. Argentina: Energy Efficiency (World Bank)

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|---|---|
| Focal Area/OP/Strategic Priority: | Climate Change/OP5/CC-1 and CC-2 |
| Local Executing Agency: | Secretariat of Energy |
| Total Cost of the Project: | $98.113 million |
| GEF Funding Request: | $15.155 million (+ PDF of $345,000) |
| Key Indicators: | 5.9 million tons of $CO_2$ reduction over the life of the project (2012); 71.9 million tons of $CO_2$ reduction over 10 years post-project. |

Rationale & Objective:
The objective of the project is to attain a sustained increase in energy efficiency of electricity and natural gas use in major economic sectors and in the process reduce greenhouse gas emissions. The project will achieve this by removing key institutional, financial, and information barriers and the perceived risks for EE investments among commercial banks, improving the capacity and incentives for electricity utilities to promote EE, and developing new EE regulations and strengthen the ESCO industry.

Project Components:

(a) establishment of the Argentina EE Fund, which includes a contingent grant facility and a guarantee facility;
(b) development of a utility program to support EE investments by electricity utilities in the residential, commercial and public sectors;
(c) capacity building and project management, including preparation of energy sector, tax and financial policies and regulations to promote EE as well as a standardization, testing, certification, and labeling program;
(d) ESCO capacity building to foster the ESCO industry and to implement EE investments through the EE Fund;
(e) information, training, and disseminator programs; and
(f) project coordination and M&E.

Project Outcomes:

(a) 8,992 GWh saved, 745 MW deferred, 804,000 TOE of fuels saved;
(b) $9.6 million of EE lending supported by AEEF and $53 million by utilities;
(c) 6 banks involved in EE project financing; and
(d) 310,000 EE lamps and 8 other types of new EE equipment installed and 8.3 to 12.5 million EE labeled equipment sold.

## 33. Bangladesh: Improving Kiln Efficiency for the Brick Industry (UNDP)

Focal Area/OP/Strategic Priority

## 35. Egypt: Sustainable Transport (UNDP)

Focal Area/OP/Strategic Priority: Climate Change/ OP11/SP6
Local Executing Agency: Egyptian Environment Affairs Agency (EEAA)
Total Cost of the Project: $35.745 million
GEF Funding Request: $6.9 million (+ PDF-B of $275,000)
Key Indicators:

- Cumulative direct $CO_2$ reduction potential, to which the project is contributing: 2.0 million tons of $CO_2$ over the next 20 years.
- Share of public transportation maintained or, if possible, increased.
- New non-motorized transport (NMT) corridors developed with the total length of at least 50 km.

Rationale & Objective:
The population of Egypt is growing by some 1 to 1.5 million people per year and is expected to reach 80 million by 2015. Together with the growing economy, this is inevitably putting more pressure on the country's transportation system. The problems are particularly acute in the Greater Cairo area, one of the world's mega-cities with a population of more than 17 million and where the demand for mobility has greatly outpaced the capacity of the public transportation system to cope. While the situation in other cities of Egypt is not as critical as in Cairo in terms of congestion and local air pollution, the trend of increasing energy use and GHG emissions is similar. In 2002/2003, the transport sector was responsible for 28 percent of the final energy consumption in Egypt and for about 25 percent of the energy related $CO_2$ emissions and is the fastest growing source of $CO_2$ emissions in the country. The total amount of greenhouse gas emissions from the transport sector in Egypt in 2002/2003 was estimated at 29 million tons of $CO_2$.

The objective of the proposed GEF Grant is to create an enabling policy and institutional environment and to leverage financial resources for the sustainable transport sector development, measured by the level of success in initiating replication of the sustainable transport concepts promoted in the project and the level of adoption of the required institutional changes and improvements in the general policy framework.

Project Outcomes:
The project is designed to produce the following key outcomes:

(a) the concept for new, integrated high quality public transport services (to exert shift from private cars) for Cairo and its satellite cities successfully introduced and replicated on the basis of public-private partnerships;
(b) the modal share of non-motorized transport in middle size provincial cities increased or sustained;
(c) successful introduction of the Transport demand Management (TDM) concept with an objective to expand it towards more aggressive measures over time to effectively discourage the use of private cars;
(d) improved energy efficiency of freight transport;
(e) strengthened institutional capacity to promote sustainable transport sector development during and after the project.

Project Outputs:

The project is designed to produce the following key outputs:

(a) new, high quality public transport service for connecting Cairo and the city of 6th of October successfully in operation. The feeder bus lines serving two metro stations in Cairo successfully in operation;

(b) final design of new NMT corridors. Construction of new NMT corridors; improved regulatory frameworks developed and sustainable alternatives explored.

(c) supporting TDM measures such as parking measures and, as applicable, segregated bus lanes implemented. A comprehensive transport management approach for one pilot corridor introduced;

(d) establishment of 30 new micro-pedestrian. Introduction of staggered parking charges;

(e) adopted legal and regulatory changes and incentives for improving the energy efficiency of freight transport. Improved energy efficiency of trucks and reduced number of driven kilometers;

(f) enhanced capacity of the management and envisaged users of the planned two new intermodal terminal facilities; and

(g) the Greater Cairo Metropolitan Transport Bureau (GCMTB) established. A semi public Greater Cairo Parking Authority (GCPA) established.

**36. Ghana: Development of Renewable Energy and Energy Efficiency (World Bank)**

Focal Area/OP/Strategic Priority: Climate Changes/OP6 & 5
Local Executing Agency: Ministry of Energy, Apex Bank
Total Cost of the Project: $162.5 million
GEF Funding Request: $5.5 million
Key Indicators: Increased access to energy service; renewable energy policy framework developed; increased access to local financing for renewable energy and energy efficiency projects; increased number of private entrepreneurs for renewable energy; increased number of Energy Services Companies (ESCOs) and energy efficiency projects; one to two large-scale grid-connected 50 MW RE projects; two small hydro and ten village hydro projects with a total installed capacity of 3.5 MW; five biomass cogeneration plants with a total installed capacity of 5 MW; two pilot 3-5 MW wind farm; 15,000 solar photovoltaics (PV) systems with an installed capacity of 450 kW and 500 small wind systems with an installed capacity of 500 kW; five to ten ESCO projects; and eight million tons of CO2 emissions avoided over the lifetime of the equipment.

There exist many opportunities for renewable energy and energy efficiency in Ghana. The cost of rural electrification is increasing, as it targets communities that are more remote, where off-grid renewable energy technologies may offer a least-cost option. Ghana is endowed with rich renewable energy resources from small hydro, biomass, solar, and wind. Many cost-effective energy conservation opportunities exist, particularly in the mining and household sectors. Ghana is undergoing reforms, and has available financing resources from debt relief and a number of donors. To date, however, utilization of renewable energy and energy efficiency is still limited, except large hydro, because of a number of barriers. The key barriers to renewable energy and energy efficiency include a lack of enabling policies and regulations, access to long-term financing, know-how and human capacity, and alternative models to grid-extension for energy access. This GEF project intends to address these policy, financing, information, and capacity barriers to large-scale and cost-effective deployment of renewable energy and energy efficiency in Ghana. As a result, the project would increase energy access with a focus on clean energy technologies—renewable energy and energy efficiency—, which also leads to climate change mitigation impacts.

A particularly interesting aspect is the strong focus of this project on private sector participation in the investment in a diverse range of applications. The project uses innovative and sophisticated tools to support this development, including IDA guarantees and a combination of IDA and IFC tools.

**37. Guinea: Electricity Sector Efficiency Improvement (World Bank)**

Focal Area/OP/Strategic Priority: Climate Change/ OP5/CC-1 and CC-3
Local Executing Agency:
Total Cost of the Project: $13.70 million
GEF Funding Request: $4.5 million
Key Indicators: 0.752 million tons of $CO_2$ emissions reduced over 10 years

Rationale & Objective:
The main objective of the project is to reduce $CO_2$ emissions by improving energy efficiency through a comprehensive approach that addresses technical efficiency in distribution, technical assistance for improved generation efficiency, and demand-side management for end-use customers. The project proposes to support the Government of Guinea's commitment to improving the technical, operational, and commercial efficiency of the power sector, increase access and service delivery, and set the stage for renewed engagement of the private sector to foster an efficient, stable and growing power sector in the country.

Project Components:
The project will be structured along three components:

(a) distribution efficiency improvement to support the CRSET (Commercial Reorientation of the Electricity Sector Toolkit) initiatives, including the high voltage distribution system and loss reduction through reactive power compensation;
(b) generation efficiency improvement to improve the efficiency two exiting power plants; and
(c) a TA program to support demand-side management measures and development of partnerships with the private sector to strengthen the institutions and business processes.

Project Outcomes:

(a) improved financial and operational performance of the utility;
(b) reduction in technical losses by 8 percent, improvement of tail-end voltage by 10 percent, and increase in revenue collection by 10 percent;
(c) plant load factor increased by 10 percent; and
(d) 20 energy audits completed and reduction of peak load by more than 12 MW from the DSM program.

**38. India: Coal Fired Generation Rehabilitation Project (World Bank)**

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|---|---|
| Focal Area/OP/Strategic Priority: | Climate Change/ OP5/CC-2 and CC-3 |
| Local Executing Agency: | |
| Total Cost of the Project: | $345.1 million |
| GEF Funding Request: | $45.40 million |
| Key Indicators: | 12.9 million tons of $CO_2$ avoided over lifetime of investments |

Rationale & Objective:
The key development objective of this project is to improve energy efficiency and environmental performance and practices of selected coal-fired power generating units in India. India has 65 GW of coal-fired base load power plants, representing 58% of total installed capacity, but much of this does not perform well. Plant load factor in the state government utilities is less than 70%, with station heat rates as low as 3,000-4,000 kcal/kWh. Several barriers have been identified to the uptake of EE improvement in India' coal-fired power plants, including lack of long-term financing, lack of EE orientation, general distress of the state power sector, and poor O&M practices and management capacity.

Project Components:
The project intends to tackles the barriers identified and undertake investments in a selected group of generating units. The project has two components: (i) a TA program to support a comprehensive barrier removal for development of power rehabilitation projects, and (ii) a financing window to implement approximately six sub-projects representing 760MW of installed capacity.

Project Outcomes:
Improved performance on key parameter include reduction of specific coal consumption by 20 percent, oil consumption by 60 percent, heat rate by 20 percent, auxiliary consumption by 30 percent. Plant load factor will increase by 40 percent for six generating units Component 2 and 640 MW capacity financed through other sources. For the TA Component, project outcomes/outputs will include energy audit reports for 10 generating units, accountability framework for EE results bolstered through establishment of M&E systems, 50 generating company staff trained on EE, and study results produced on regulatory aspects of power plant rehabilitation and disseminated to regulatory agencies and generating companies in four states.

**39. India: Enabling activities for Preparing India's Second National Communication to UNFCCC (UNDP)**

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| Focal Area/OP/Strategic Priority: | Climate Change/EA/CB-1 |
| Local Executing Agency: | Ministry of Environment and Forests |
| Total Cost of the Project: | $10.349 million |
| GEF Funding Request: | $3.5 million (+ PDF of $349,000) |
| Key Indicators: | Sequencing of response to Convention priorities and capacity building through EA |

Rationale & Objective

India submitted its Initial National Communication in 2004, which involved 16 ministries and 117 institutions. However, there is still insufficient information on climate change issues resulting in inadequate compliance with the commitments to the UNFCCC. One of the essential enabling activities required to prepare the Second National Communication is to strengthen the professional and institutional capabilities to meet the rigorous reporting requirements of the UNFCCC. The development objective of this project is to strengthen the technical, institutional and individual capabilities to assist India mainstream climate change concerns into sectoral and national development priorities, while the immediate objective is to enable India to prepare and submit its SNC to the UNFCCC according to the new guidelines.

Project Outcomes:

The project will have four outcomes:

(a) a consistent, comparable, comprehensive, and transparent national GHG emission inventory for the year 2000 with reduced uncertainties;
(b) an integrated assessment of impacts of climate change and associated vulnerabilities in the various regions of India;
(c) a description of the Indian national circumstances and the steps taken or envisaged to implement the Convention; and
(d) preparation of SNC report.

**40. India: Market Transformation through Consumer Awareness Programs for Energy Efficiency Standards and Labeling (UNDP)**

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|---|---|
| Focal Area/OP/Strategic Priority: | Climate Change/ OP5/CC1 |
| Local Executing Agency: | Bureau of Energy Efficiency |
| Total Cost of the Project: | $31.61 million |
| GEF Funding Request: | $5.50 million (+ PDF of $160,000) |
| Key Indicators: | Reduction of 60 TWh of electricity and 58 million tons of $CO_2$ emissions; indirect reduction of 353 TWh of electricity and 337 million tons of $CO_2$ emissions. |

Rationale & Objective:
In India, the energy usage of refrigerators and room air-conditioners has been growing at 15-20 percent per year for the last three years. Because of the situation, the project seeks to reduce energy usage of these appliances through market transformation of energy-efficient designs and technologies.

Project Components/Outcomes:

(a) improved policy environment and implementation structure for supporting nationwide mandatory EESL program;
(b) increased availability of energy efficiency model in the market;
(c) increased market share of energy efficiency refrigerators and air-conditioners and incentive programs for consumers, manufacturers, dealers, and retailers; and
(d) labeling and minimum energy performance standards will be notified in 2007 for refrigerators and air-conditioners, and more than 50 percent of these two categories of appliances on the market are expected to be energy efficiency models by 2009.

**41. Indonesia: Bus Rapid Transit and Pedestrian Improvements in Jakarta and Other Indonesian Cities (UNEP)**

Focal Area/OP/Strategic Priority: Climate Change/OP11/SP6
Local Executing Agency: Institute for Transportation and Development Policy (ITDP)
Total Cost of the Project: $194.135 million
GEF Funding Request: $5.81 million (+ PDF-B of $348,000)
Key Indicators:

- Estimated average reduction of greenhouse gas (GHG) emissions: 1.6 million tons of $CO_2$ per year (31.2 million tons over 20 years)
- The number of BRT passengers, average trip length, and fuel consumption of the BRT buses

Rationale & Objective:
New developments in the urban transport sector in Indonesia promise to counter the trend of increasing GHG emissions in this sector. Jakarta's nascent bus rapid transit (BRT) system has begun to re-allocate scarce road space in the city's center to efficient public transportation and has already resulted in a shift of trips from private motor vehicles. Jakarta is at a crossroads: over the next few years the city will either construct a premier BRT system, providing large transport and environmental benefits, or it will implement a system with problems and shortcomings that results in mediocre performance. Such a system could diminish the promise for development of other systems in the region.

The project seeks to maximize effectiveness of the Jakarta BRT and use it as a catalyst for urban transport reform in Jakarta and other key Indonesian cities. This will be accomplished by improving performance of the Jakarta BRT and maximizing ridership. In addition, this will also be accomplished by using BRT to build the image of public transport and improve pedestrian transport demand management (TDM), non-motorized transport, and land use options in Jakarta and other Indonesian cities.

Project Outcomes:

(a) BRT implemented on corridors 4-14 with routes optimized;
(b) integrated fare system with controls to stop fare leakage;
(c) competitive contracting implemented for BRT bus operation, reducing costs;
(d) intersection conflicts reduced to acceptable levels;
(e) BRT average speed increases to 25 km per hour and improved political support for BRT by reducing impacts on mixed traffic; 5 percent reduction of fleet downtime, reduced operating costs, 8 percent reduction in fuel consumption;
(f) public understanding of BRT and optimal use of public road space increased;
(g) web and SMS based routing information system available to potential passengers;
(h) increase of passenger from bus feeder system from 5 percent to13 percent of BRT passengers, of which 32 percent are new passengers and 32 percent shifted from Private motorized vehicle (PMV) feeder;
(i) TDM measure implemented so that cost of PMV use is greater than BRT fare; and
(j) convenient non-motorized transportation (NMT) and pedestrian trips led to increases in BRT trips.

**42. Jordan: Promotion of a Wind Power Market (World Bank)**

Focal Area/OP/Strategic Priority: Climate Change/ OP6/Power Sector Policy
Local Executing Agency: Ministry of Energy and Mineral Resources (MEMR)
Total Cost of the Project: $88.95 million
GEF Funding Request: $6.00 million (+ PDF of $350,000)
Key Indicators: Increased and sustainable energy services; renewable energy policy framework enhanced; 60 MW wind power developed; increased number of private developers for renewable energy; and an additional 1.8 MT tons of $CO_2$ emissions avoided over the lifetime of the equipment installed.

Jordan has little indigenous energy resources, raising the issue of security and reliability of supply. The Government of Jordan has recognized that providing a reliable energy supply at reasonable cost is crucial to transforming the highly indebted, mostly state-controlled economy into an export-oriented economy with the private sector playing a leading role. The Government of Jordan has therefore set a target of 3 percent of the energy mix to be achieved through renewable sources by 2015. However, with a large estimated potential for wind power and with cost reduction as experience increases, wind and other renewables could contribute a more significant proportion of power supply over the long term. Early experience in implementation of wind power and its integration in the generation mix would therefore enable more optimal utilization then, as well as produce increased environmental benefits. Alternatively, with more wind power, natural gas could be diverted for other purposes.

In order to have wind power contribute significantly to the energy supply in Jordan, this project will help the government and the utility with the first steps: establish an enabling policy framework; establish a sustainable financing mechanism; and help the utility deal with technical issues related to wind power in a grid, such as intermittent power supply. The project aims to (i) to set up wind farms with a total capacity of 60 MW with majority private financing, (ii) provide technical assistance to the country to address the policy, regulatory, and financial barriers to the promotion of wind power and renewable energy, in general, and (iii) support the development of renewable energy projects. Particularly innovative is the project's goal of converting the existing rural electrification fund—which has in the past successfully served as a sustainable financing mechanism for the achievement of high rural electrification rates—into a renewable electrification fund. This will help Jordan in the future improve energy independence and technology leadership.

**43. Kenya: Development and Implementation of a Standards and Labeling Programme in Kenya (UNDP)**

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| Focal Area/OP/Strategic Priority: | Climate Change/ OP5/CC-1 |
| Local Executing Agency: | Kenya Association of Manufacturers |
| Total Cost of the Project: | $11.11 million |
| GEF Funding Request: | $2.00 million (+ PDF of $350,000) |
| Key Indicators: | 1.96 million tons of direct reduction of $CO_2$ emissions during 2007-36 and 11.38 million tons of indirect reduction |

Rationale & Objective:
The objective of the project is to remove barriers that hamper the rapid and widespread uptake of energy efficient motors in the industrial sector, refrigerators in the residential sector, display refrigerators in the commercial sector, and air-conditioners in the commercial sector, and lighting in the residential, commercial, and industrial sectors. The project will focus on Kenya and will be replicated in other countries in the East African Community (Burundi, Rwanda, Tanzania, and Uganda).

Project Components/Outcomes:

(a) selection and adoption of international test procedures, minimum energy performance standards and label classifications;
(b) development and implementation of a verification and enforcement system;
(c) awareness raising campaign for standards and labels, targeting distributors, retailers, and end-users;
(d) development of voluntary agreements for efficient commercial display refrigerators and hotel air conditioner;
(e) development of policy framework;
(f) learning and replication; and
(g) by the end of the project, energy intensity of products in the manufacturing sectors will have reduced by 20 percent in the five key sector-sectors and average energy efficiency of the targeted electricity-consuming appliances and lighting products in the commercial and residential sectors will also improve by 20 percent. Volume of sales of EE equipment and appliances in the five categories will increase by 40 percent. Import of second-hand domestic refrigerators will be fully banned.

**44. Mongolia: Heating Energy Efficiency (World Bank)**

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| Focal Area/OP/Strategic Priority: | Climate Change/OP5/CC-2 and CC-3 |
| Local executing agency: | |
| Total Cost of the Project: | $27.2 million |
| GEF Funding Request: | $7.2 million |
| Key Indicators: | $20 million investments in energy efficiency mobilized directly; district heating policy framework reformed to promote energy efficiency; and lift-time $CO_2$ emissions reduced by 4.6 million tons over 20 years |

Rationale & Objective:
Space heating accounts for 35 percent of total coal consumption in Mongolia. The project will focus on Ulaanbaatar and Darkhan, which together house 68 percent of the country's urban population and have about 96 percent of the production capacity for electric power and district heat. The development objective of the project is to achieve large and sustained energy efficiency improvements and loss reductions in the district heating services of the above two cities by reducing technical losses through investments in rehabilitation of critical parts of the district heating systems and commercial losses through introduction of an improved tariff systems, residential metering, consumption-based billing for customers, and strengthened management of the district heating systems.

Project Components:

(a) technical assistance to develop regulatory and institutional capacity;
(b) investments to rehabilitate critical parts of the Ulaanbaatar and Darkhan district heating systems and implement heat metering and other demand-side management measures for residential buildings; and
(c) technical assistance to pilot Aimag center heating efficient improvement models.

Project Outcomes:

(a) 50 percent reduction of system makeup water consumption and system heat losses;
(b) 80 percent of residential floor area billed according to consumption; and
(c) 65 percent of the domestic hot water and space heating residential customers supplied through rehabilitated systems.

**45. Mongolia: Renewable Energy and Rural Electricity Access (World Bank)**

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| Focal Area/OP/Strategic Priority: | Climate Change/OP6 |
| Local executing agency: | Ministry of Fuel and Energy |
| Total Cost of the Project: | $16.3 million |
| GEF Funding Request: | $3.5 million |
| Key Indicators: | Investments in renewable energy totaling $11.8 million mobilized and leveraged investment of $10 million projected. National energy policy reformed to promote renewable energy. |

Rationale & Objective: Mongolia is inhabited by a partially nomadic population that survives under harsh climatic conditions. Yet, these climatic conditions offer rich solar and wind energy resources. Access to energy is one of the factors limiting economic opportunities. Building on past and ongoing pilot efforts to promote renewable energies, this project intends to systematically intensify the use of renewable energy as a sustainable energy supply across Mongolia. The development objectives of this blended GEF/IDA project are the following: (i) increase access to electricity to the nomadic herder population; (ii) reduce the costs and increase the reliability of electricity service in off-grid Soum centers (small settlements); and (iii) remove barriers to the scale-up of renewable energy use, leading to sustainable growth of the market for renewables.

Project Outcomes: The overall project's development outcome will be a more effective, efficient and sustainable framework and delivery system for providing electricity services in rural areas. This system will involve public-private partnerships. For the nomadic herders, the framework will include the availability of more reliable and convenient lighting systems and greatly improved information facilities. For the Soum centers, the outcomes will be more reliable and longer hours of electricity supply, and improved performance and longer operating hours in public and private institutions, such as schools, rural health centers, ICT centers, shops, and other business entities. Thus the public and private institutions in the soums will be able to offer a better level of service to the Soum population, as well as to the herders who visit the Soums for their essential needs and for temporary stays during the winter season.

Project Outputs: The project's objectives will be achieved by facilitating private herders' investments in stand-alone electricity systems, in particular, solar photovoltaic (PV) systems and small wind turbines. The objectives will also be achieved by rehabilitating isolated Soum center mini grids and improving their operations and management practices. Generation capacity in Soum grids will be expanded, followed by introduction of renewable-diesel hybrid generation systems that use of wind or PV, solar/wind, or hydro blended with existing diesel generators (hybrid systems). A key part of the project is strengthening the institutional and regulatory capacity at national level to develop grid-connected and off-grid connected renewable energy supplies.

**46. Morocco: Towards Energy Efficiency Codes in Residential, Commercial and Hospital Buildings in Morocco (UNDP)**

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| Focal Area/OP/Strategic Priority: | Climate Change/OP5/CC-1 |
| Local executing agency: | Center for the Development of Renewable Energy (CDER) |
| Total Cost of the Project: | $15.885 million |
| GEF Funding Request: | $3 million (+ PDF of $275,000) |
| Key Indicators: | Direct reduction of 3.5 million tons of $CO_2$ and 3.3 million tons direct post-project; indirect reduction of 6-7 million tons of $CO_2$ through enforcement of building codes |

Rationale & Objective:
The Government of Morocco has a strong interest in reducing energy costs in the housing, tourism, and healthcare sectors by integrating energy efficiency standards and practices into building design and management. The project aims to improve the energy efficiency of buildings in Morocco, especially in the housing sector, through the introduction of EE building codes and standards.

Project Outcomes:

(a) energy efficiency Building Code Unit set up at the national level and compliance reinforced at the municipal level;
(b) energy efficiency building codes for residential building drafted and implemented;
(c) energy efficiency standards and guidelines for professionals developed and disseminated;
(d) outreach, demonstration and knowledge sharing activities implemented; and
(e) project management and monitoring and evaluation support provided.

**47. Namibia: Barrier Removal to Namibian Renewable Energy Programme (NAMREP), Phase II (UNDP)**

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| Focal Area/OP/Strategic Priority: | Climate Change/OP6 |
| Local executing agency: | Ministry of Mines and Energy |
| Total Cost of the Project: | $10.236 million |
| GEF Funding Request: | $2.600 million |
| Key Indicators: | The increased sales of solar energy technologies (SETs) |

Rationale & Objective: Only a third of Namibia's population has access to electricity (67 percent for urban areas and 10 percent for rural areas). Some 131 settlements are officially designated as off-grid by the Master Plan, meaning that some 27,000 households will not have access to the national grid for at least 20 years. Much of the current conventional energy consumption relies on non-renewable hydrocarbon fuels of finite quantity, which have to be fully imported, mostly from South Africa. Given the fact that South Africa is rationalising its power industry and may reduce power exports to Namibia, the Namibian government has indicated the possibility of sharp rises in grid electricity tariffs in the near future. In this context, there is a clear scope for solar energy technologies (SETs) in the rural and urban areas of Namibia. The solar technologies with most scope in Namibia are solar home systems (SHS), solar water heaters (SWH), photovoltaic (PV) pumps, and PV refrigeration. Currently, various private companies provide these technologies that are mostly imported from United States, Europe, or South Africa. There is a clear demand for SHSs for households and small shops in rural areas (and a future potential for solar-hybrid mini-grid systems). Regarding water pumping, PV pumps are competitive as compared with diesel systems in cases of lower water delivery demand range. In urban areas, the market for SWHs is in households, commercial establishments, and institutions; in rural areas, in clinics, hostels, and commercial farms.

Because of the financial management of GEF trust fund resources at the end of GEF-2, this project had to be structured in two phases. Phase I of this program has been ongoing for two years and has already achieved significant results. These results are documented in the proposal as well as in an interim evaluation. Phase I has been instrumental in improving the functioning of the Solar Development Fund and in improving the enabling environment and technical capacities for the private sector delivery of solar energy technologies. In the year of program implementation, the sales and market has increased greatly. The proposed phase II will now help institutionalize these changes, particularly emphasizing government policies, the mobilization of financial resources for a sustainable operation of the Solar Development Fund, and the technical training facilities in Namibia. Because of the success of phase I, the co-financing figures have improved for both phases.

Phase I's six components have been streamlined into 5 components, which are:

(a) capacity building in public and private sectors and NGOs;
(b) new policies, laws, regulations and actions in support of renewables;
(c) increased public awareness among stakeholders;
(d) appropriate financing and product delivery schemes; and
(e) learning, evaluation and adaptive management.

**48. Nicaragua: Promotion of Environmentally Sustainable Transport in Metropolitan Managua (UNDP)**

Focal Area/OP/Strategic Priority: Climate Change/OP11/SP6
Local Executing Agency: Inter-Institutional Urban Transport Committee (CITU)
Total Cost of the Project: $64.815 million
GEF Funding Request: $3.875 million(+ PDFs of $350,000)
Key Indicators:

- Direct $CO_2$ emissions reductions: 892,000 tons of $CO_2$ during the lifetime of the investment that will be executed in the full-size project (North Corridor BRT and 49 km of cycling paths).
- Indirect $CO_2$ emissions reductions: 1,713,000 tons of $CO_2$ over 20 years resulting from a bus rapid transport (BRT) and bicycle path expansion in Managua and project replication in 12 provincial cities (mostly bicycle path development).

Rationale & Objective:
The metropolitan area of Managua has an estimated population of 1.4 million inhabitants and an annual population growth rate of 2.4 percent. As Managua experiences rapid and disorganized urban growth, its public transport system is facing severe structural and operational problems, which in turn causes deficient service and quality, accidents, and reduced quality of living standards for its inhabitants. Without a widespread public transport reform in the city, the modal share of buses in urban mobility is expected to drop substantially (from 47 percent below 35 percent of motorized transport) in the next 20 years. Acknowledging the transport issues faced by Managua, the Government of Nicaragua is leading an effort to improve the public transport sector, most notably through the construction of a Bus Rapid Transport system.

The project will integrate sustainable transport practices into current transportation planning and public transport investment programs. Specifically, the project is designed to support and complement the development of the BRT system, identifying and developing opportunities not contemplated in current urban transport planning processes.

The project's overall objective is to mitigate greenhouse gas emissions by promoting a sustainable urban transport system in Metropolitan Managua, by means of modal shifts to public and nonmotorized transport. The GEF intervention will support the implementation of a more environmentally sustainable transport system in Metropolitan Managua and its replication in provincial cities.

Project Outcomes:

(a) implementation of a new legal and operational framework for public transportation in Managua;
(b) implementation of a BRT system;
(c) improved land-use planning in Managua;
(d) promotion of bicycles as a sustainable and efficient transport alternative; and
(e) capacity building, project replication, and monitoring of project impacts.

Project Outputs:

(a) regulation of public transport law;
(b) operational standards for BRT and related bus services;
(c) technical standards for BRT system;
(d) financial operative system for BRT;
(e) vehicle replacement program;
(f) integration of Ciudad Sandino in the BRT System;
(g) BRT detailed engineering, construction of the North BRT;
(h) Expansion Program, Corridor BRT;
(i) inclusion of local bus cooperatives in BRT operation;
(j) BRT Promotion program;
(k) documentation of results and lessons learned from first BRT;
(l) implementation of land use incentives and policies along the North Corridor;
(m) implementation of vehicle circulation restrictions;
(n) strategic plan for building cycling path network;
(o) cycling path design and construction program;
(p) information and public awareness campaign;
(q) private sponsorship of bicycle promotion;
(r) civil society participation program;
(s) website creation and maintenance;
(t) international exchanges of field experiences; and
(u) monitoring and evaluation of project.

**49. Philippines: Philippines Sustainable Energy Finance Program (World Bank/IFC)**

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| Focal Area/OP/Strategic Priority: | Climate Change/OP5 and OP6/CC-2 |
| Local executing agency: | N/A |
| Total Cost of the Project: | $28.3 million |
| GEF Funding Request: | $5.3 million |
| Key Indicators: | 1.8-2.7 million tons of $CO_2$ emissions reduction through investments; 3-5 financial institutions providing dedicated financing for sustainable energy projects |

Rationale & Objective

This project will support the development of a sustainable commercial financing market for energy efficiency and renewable energy projects in the Philippines. While the intermediate objective is to facility direct credit enhancement for $53 million in lending for sustainable energy projects, the technical assistance and credit enhancement activities are designed to lay the foundation of a self-sustaining market. The strategy of the project is to build on the existing market drivers and remove key barriers related to the availability of financing and commercial strength of project developers.

Project Components:

(a) a financing facility that provides financial institutions with tailored financial products to encourage banks to underwrite loans to sustainable energy projects;
(b) a technical assistance program targeted at financial institutions to building technical and commercial capacity in assessing the risks and structuring financial deals on energy efficiency and renewable energy projects; and
(c) a technical assistance program targeted at emerging Energy Services Companies (ESCOs) and vendors to build organizations that make deals and financial structuring capacity.

Project Outcomes:

(a) at least $40 million of energy efficiency investment initiatives enabled by the project;
(b) at least three financial institutions providing dedicated financing for energy efficiency projects and at least two employees per financial institution knowledgeable about energy efficiency transactions; and
(c) portfolio of energy efficiency transactions having a satisfactory repayment rate of 97 percent.

**50. Rwanda : Sustainable Energy Development Project (SEDP) (World Bank)**

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| Focal Area/OP/Strategic Priority: | Climate Change/OP5 & 6 |
| Local Executing Agency: | Ministry of Infrastructure, Rwanda Utility Regulatory Agency, Electrogaz |
| Total Cost of the Project: | $26.85 million |
| GEF Funding Request: | $4.5 million |

Rationale & Objective: Rwanda is a small, landlocked country in the Great Lakes region of Africa. The terrain is mostly hilly and mountainous, with grassy uplands. Rwanda was ravaged by civil war and genocide in the early 1990s, followed by border wars that finally ended in 2002–3. Currently, the country's population and infrastructure is in the process of recovery from that war. The population has fluctuated considerably because of genocide and migrations associated with conflict. At more than 320 people per square kilometer, the aggregate population density is among the highest in the world. In this context, IDA is supporting the reconstruction of the energy sector with an Urgent Electricity Rehabilitation (UER) Project for Rwanda (Board approval on January 27, 2005). The objectives of the project are two-fold: i) to alleviate power shortages through rehabilitation of the dilapidated electricity network of the state owned power and water utility Electrogaz and by developing additional generation to help fulfill the current capacity shortfall; and ii) enhance the capabilities of energy sector institutions through technical assistance to the Ministry of Infrastructure, Electrogaz, and the Rwanda Utility Regulatory Agency.

The bleak state of the energy sector offers opportunities for developing renewable energies—in particular hydro, biomass, and solar—and for the systematic integration of energy efficiency in planning and operation of the power sector. GEF cofinancing is sought for the UER project so that renewable energy and energy efficiency can be mainstreamed into the national energy planning process and a renewable energy market can be developed. Specifically, the interventions under this project will include the following:

(a) market development for solar PV and other stand-alone renewable energy technology (RET) systems to meet high-value electricity and ICT needs for remote public institutions;
(b) promotion of improved woodfuel combustion devices (stoves, ovens, kilns) for household and productive use markets;
(c) financial mechanisms for stimulating mini and micro-hydro development and encouraging hydro development in the context of rural development activities;
(d) targeted demand-side management and energy efficiency activities; and
(e) associated technical assistance, capacity building, and monitoring and evaluation activities to strengthen the institutional framework for facilitating such interventions.

**51. Sri Lanka: Portfolio Approach to Distributed Generation Opportunity (PADGO) (Phase 1) (World Bank/IFC)**

Focal Area/OP/Strategic Priority: Climate Change/OP5,6/SP2
Local Executing Agency: IFC
Total Cost of the Project: $28.55 million
GEF Funding Request: $3.6 million
Key Indicators: From 9 to 10.7 million tons of $CO_2$ equivalent GHG emission reductions are estimated to be achieved over 20 years as a result of the implementation of PADGO. Between 1.6 to 3.3 million tons of $CO_2$ alleviation will occur as a result of projects *directly* supported by and implemented as a result of this initiative. In addition, we estimate that projects *indirectly* benefiting from our interventions over a 20 year period will account for GHG reductions of 7.4 million tons of $CO_2$.

Distributed generation, (<50 MW), has a number of advantages as compared to large centralized power plants that can be particularly beneficial for the power systems of developing countries: they can help defray transmission and distribution losses and increase local energy security, while using locally available and often renewable fuels like small hydro, biomass and wind power. The available technologies are often only slightly more expensive per unit output than large centralized power stations, but can be equally or more efficient, modular, and potentially easier to finance by self-generators, independent energy suppliers and IPPs. Many such technologies are finding applications in developing countries, including through promotion by GEF projects, and including for use in niches like backup power in situations fraught with grid reliability problems.

However, a significant barrier to their widespread use is the lack of availability of finance, due to technical risks, but also due to the fact that some lenders have maximized their exposure to this particular lending portfolio. The projects objective is the further promotion of the use of clean distributed generation through the facilitation of access to finance for a standardized set of technologies. The project intends to function as a hinge between the manufacturers of distributed generation technologies, and the investors and lenders. The project will facilitate the development of "Master Agreements" that specify performance standards in technical as well as environmental dimension. These Master Agreements will make it easier to obtain financing for technologies that comply to these criteria. Beyond that, however, loans that are based on these Master Agreements are standardized to the degree that they can be aggregated into secondary loan products. This avenue will be explored at later stages in the project.

The initial stage, for which funding is sought here, will have three specific goals for the country context in Sri Lanka:

(a) releasing lending capacity at local banks for financing < 10 MW type mini-hydro and other DE technologies through the establishment of a replicable framework, and a risk sharing product,

(b) introducing new fossil and biomass based DE generation technologies and new private sector players (Original Equipment Manufacturers (OEMs), entrepreneurs etc.) to Sri Lanka through one or more clean energy pilot projects, and

(c) taking the first steps towards a portfolio mini-grid approach to promoting a diverse mix of clean DE generation technologies.

## 52. Tanzania: Energizing Rural Transformation Project (World Bank)

Focal Area/OP/Strategic Priority: Climate Change/ OP6
Local Executing Agency: Ministry of Energy and Minerals
Total Cost of the Project: $37.80 million
GEF Funding Request: $6.5 million
Key Indicators: Increased access to energy service; increased access to local financing for renewable energy; increased number of private entrepreneurs for renewable energy; three to four small hydro and six to seven village hydro projects with a total installed capacity of 12 MW; 9,200 solar PV systems for public services, entrepreneurs, and individuals with an installed capacity of 800 kW; and 0.75 million tons of $CO_2$ emissions avoided over the lifetime of the equipment.

The development objective of this project is to improve the quality of life of rural and peri-urban households and to raise the incomes generated/jobs created by enterprises in those areas - by means of increased access of households, enterprises and social facilities to electricity and ITC services. The project's global environment objective, in line with GEF OP6, is to remove the barriers to, and reduce the costs of, renewable energy technologies to help mitigate greenhouse gas emissions. The proposed GEF co-financing supports OP6 strategic priorities (CC2/4) - increased access to local sources of financing and productive uses of renewable energy.

The GEF's project objective is to create a sustainable market for renewable energy systems and a sustainable local renewable energy industry. The Government of Tanzania considers the growth of a renewable energy industry as an integral part of its rural energy and power sector development strategies. It wants to reduce the dependency on fossil fuel for isolated grids and remote locations and suggests additional research and development of renewable energy, particularly as part of rural electrification initiatives. It also stipulates the necessity to establish a legal framework and standards for renewable energy. In the National Energy Policy, the government identifies barriers to renewable energy: (i) lack of a favorable business environment and policy framework; (ii) lack of scale-up capacity building efforts; (iii) lack of understanding of end-user need and awareness; (iv) lack of a rural delivery infrastructure; and, (v) lack of access to finance.

The proposed GEF project is fully blended with the IDA project Tanzania Energizing Rural Transformation (ERT). With a larger scope, this project will also comprise grid extension and information and communication technology coverage. It is expected that a total of 50,000 new connections in rural and peri-urban areas will be implemented annually at a cost of about $30 million per year. This cost includes the upgrading and reinforcement of the existing medium and low voltage networks that are necessary to serve the additional demand. ERT would support: (a) distribution extensions from the Tanesco grid; (b) independent (renewable energy) grids owned and operated by Tanesco or other service providers; (c) grid-connected renewable energy based small generation investments by private enterprises; (d) solar photovoltaic investments in remote social service facilities, businesses, and households; and (e) development of productive uses of electricity in recently electrified communities. GEF supports those aspects of the ERT project that are targeting removing barriers to and developing the renewable energy markets.

## 53. Vietnam: Hanoi Urban Transport Development (World Bank)

Focal Area/OP/Strategic Priority: Climate Change/OP11/SP6
Local executing agency: Hanoi People's Committee (HPC)
Total Cost of the Project: $339.04 million
GEF Funding Request: $9.8 million (+ PDF-B of $350,000)
Key Indicators:

- Reduction of tons of $CO_2$-equivalent (potential reduction of between 1.70 to 2.23 million tons $CO_2$-equivalent over 15 years (to 2020).
- Increased public transport mode share along project corridors and areas.
- Increased number of public transport trips.

Rationale & Objective:
Transport in Hanoi is currently dominated by motorcycles, which account for over 60 percent of vehicular trips. The poor still depend on bicycles, and nonmotorized modes account for a quarter of the vehicular trips. Presently, automobile ownership and use levels are still relatively low, but ownership is increasing rapidly at over 10 percent per year. The city is dense and has neither the resources nor the space to sustain private vehicle use (particularly automobile use) at levels significantly higher than the present. Further, the city's land area is expanding rapidly and city authorities are working to facilitate this expansion. Although development and new roads plans exist, there are deficiencies in the plans and institutions that oversee them. The capacities of the institutions responsible for land-use development and integration of land use with transport need to be enhanced.

The project seeks to promote a shift to more environmentally sustainable transport modes and urban development plans, with the longer-term goal of replicating these approaches in the country and region. The project's global environment objective is to lower Hanoi's transport-related greenhouse gas emissions, relative to a business-as-usual scenario.

Project Outcomes:
The project is designed to produce the following key outcomes:

(a) establishment of high capacity busways on two major corridors;
(b) integration of planned investments in road infrastructure with land-use plans to generate a transit friendly urban landscape; and
(c) enhanced capacity of Hanoi City's government institutions to create and implement a growth strategy that is conducive to public transit-oriented development and to better urban environmental conditions.

**54. Zambia: Promotion of Renewable Energy to Increase Access to Electricity (World Bank)**

Focal Area/OP/Strategic Priority: Climate Change/OP6/SP4
Local executing agency: Rural Electrification Authority (REA)
Total Cost of the Project: $26.84 million
GEF Funding Request: $4.5 million (+ PDF of $240,000)
Key Indicators: Increased and sustainable energy services to social sectors such as Education and Health; renewable energy policy framework developed; 5 MW mini-hydro, and 660 kW solar PV systems installed; Increased number of private developers for renewable energy; and 1,015,300 tons of $CO_2$ emissions avoided over the lifetime of the equipment installed.

In Zambia, less than 20 percent of the population has access to electricity, with about 40 percent in the urban area and only 2 percent in the rural area. For remote rural population, there are few options to increase access to electricity. Because of the low population density in Zambia and the enormous distances between major towns or load centers, grid extension to some areas is currently not commercially viable. On the other hand, Zambia is endowed with rich renewable energy resources from small hydro, biomass, and solar. In situations like this, renewable energy can play a major role in providing electricity services in rural areas, either through isolated mini-grids (e.g. small hydro and biomass) to serve a concentrated but remote rural population or stand-alone systems (e.g. solar PV) to satisfy small local demands for dispersed areas.

The key barriers to renewable energy include a lack of enabling policies and regulations, financing mechanisms, information, know-how and human capacity. This proposed IDA/GEF project is fully blended with the IDA project entitled 'Increase to Access to Electricity and ICT (IAES)' and aims at addressing these policy, financing, institutional, information, and capacity barriers to large-scale and cost-effective deployment of RE in Zambia. As a result, the project would increase energy access with a focus on renewable energy technologies, which also leads to climate change mitigation impacts.

The proposed IDA/GEF project has four subcomponents:

(a) electricity grid extension;
(b) independent electricity grids;
(c) solar PV systems; and
(d) technical assistance.

Of these GEF will provide support to only subcomponents 2, 3 and 4. The support is geared towards the government for establishing regulatory framework and financing mechanism, but also towards the private sector: Through business support, capacity building, and limited financial incentives, local entrepreneurs will be encouraged to install and maintain village hydro and solar PV systems for both the institutional market (e.g. rural schools and clinics) and the household market. Over time, this provision of rural renewable energy services for electricity and productive uses, will result in increased energy access and local economic development and at the same time in avoid increases in greenhouse gas emissions.

**International Waters**

**55. Regional (Senegal, Nigeria, Ghana, Kenya, Mozambique, Seychelles, Tanzania, Cameroon, Gambia): Demonstrating and Capturing Best Practices and Technologies for the Reduction of Land-sourced Impacts Resulting from Coastal Tourism (UNEP)**

Focal Area/OP/Strategic Priority: IW/OP10/SP3: demonstration projects for pollution reduction

Local Executing Agency: UNIDO
Total Cost of the Project: $28.745 million
GEF Funding Request: $5.388 million
Key Indicators:

- Baselines established within one year and GEF IW stress reduction indicators also established within a year for each hotspot demonstration site.
- 20% reduction in negative impacts (pollution reduction/habitat/species numbers/water use) at demo sites (see M & E plan)
- Measurable increase in livelihoods for alternative livelihood generation (at least 10% increase in per capita subsistence livelihoods)
- Confirmation of traditional access rights at 50% of tourism locations.
- Effective policies drafted for most countries (7) and under implementation in year 4 by half.
- Various process indicators for centres established, reviews/analyses/guidelines completed, national governance reforms adopted (see logframe).

Rationale & Objective:
In its international waters focal area, GEF has supported the locally driven "Africa Process" addressing coastal and marine degradation since the late 1990s. A portfolio of project proposals related to more sustainable coastal tourism was developed during the GEF medium-sized project, endorsed at a Ministerial and Heads of State meeting held in Johannesburg during the World Summit in 2002, and has been incorporated into the NEPAD process. The project's objective is to demonstrate the use of best practices, policy frameworks, strategies, and innovative institutional arrangements (from fee structures to Environmental Management Systems compliance and certification/labeling) to reduce impacts from land and marine-based sources of pollution associated with tourism and will test the engagement of the private sector in this effort. It will illustrate how tourism can provide sustainable solutions with the capacity to act as a catalyst for activities that reduce pollution and minimize use of scarce water resources and habitat. The OP 10 demo project is linked with and contributes to the GEF foundational Large Marine Ecosystem projects currently underway for the entire coast of Sub-Saharan Africa through its specific demo projects in previously identified "coastal hotspots" that address the Global Programme of Action (GPA) for the Protection of the Marine Environment from Land-based Activities. The GPA was incorporated into GEF OP 10 as a result of the 1995 Washington Declaration. The project also contributes to the priorities and objectives of NEPAD and to objectives of the Nairobi and Abidjan Conventions.
Project Outcomes:

(a) sustainable coastal tourism policies adopted by all participating countries;
(b) pollution reduction/water use efficiency is documented in priority hotspots where demonstrations are conducted;

(c) reforms/financial mechanisms for sustainability adopted by the countries;
(d) engagement of the private sector tested and documentation of experiences provided;
(e) best practices and experiences documented, captured in a clearinghouse with GEF IW:LEARN, and knowledge-sharing is facilitated; and
(f) tourism enterprises in Africa gain experience and capacity to protect coastal environments.

**Land Degradation**

**56. Regional (Kazakhstan, Kyrgyzstan, Turkmenistan, Uzbekistan, Tajikistan): Central Asian Countries Initiative for Land Management (CACILM) Multi-country Partnership Framework, Phase 1 (ADB)**

Focal Area/OP/Strategic Priority: LD/GEF 3 - SLM 1 & 2/GEF 4 - SLM 1,2,3 & 4
Local Executing Agency: Ministries of Environment and Ministries of Agriculture
Total Cost of the Project: $155.523 million
GEF Funding Request: $20.00 million (+ PDF of $700,000)
Key Indicators: Area of land protected from land degradation in five countries is estimated to be 9,840,000 hectares over the ten-year program. Rehabilitation of degraded and threatened lands and creation of conditions for sustainability will occur on approximately 2,840,000 hectares. Additional area benefiting from sustainable land management improvements by replication and strengthening of sustainable land management practices at all levels is estimated to be seven million hectares.

Rationale:
Land degradation is a serious economic, social, and environmental problem in the Central Asian countries (CACs) of Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan. It directly affects the livelihoods of nearly 20 million rural inhabitants by reducing the productivity of land resources. Agricultural yields are reported to have declined by 20–30 percent across the region since these countries achieved independence over a decade ago. Annual losses of agricultural production from salinization alone are estimated at $2 billion.

The CACs contain unique dryland, mountain and riparian ecosystems of importance to global biodiversity. These are being degraded and lost as rural populations become more desperate to sustain their livelihoods. Significant further progress in poverty reduction in the CACs will rely to a large extent on the countries' ability to achieve growth in the agricultural sector—a major contributor to CAC economies—and, hence, on attaining sustainable land management (SLM). The anthropogenic causes of land degradation are largely attributable to the abuse and overexploitation of the natural resource base, particularly through inappropriate and unsustainable agricultural policies and practices, forest degradation, and complications derived from natural disasters.

Program Objective**:**
The Central Asian Countries Initiative for Land Management **(**CACILM) Multi-country Partnership Framework seeks to restore, maintain, and enhance the productive functions of land in Central Asia, leading to improved economic and social well-being of those who depend on these resources while preserving the ecological functions of these lands in the spirit of UN Convention to Combat Desertification. This is to be achieved largely by successfully implementing national programs of the CACs that were developed using a framework formulated under CACILM. The Framework supports the implementation of the NPFs in a way that ensures comprehensive and integrated approaches to SLM in the region.

Program Outcomes**:**

(a) favorable environment for SLM investments in CACs, supported by SLM mainstreaming and improvements in policies, regulations, and land administration;

(b) improved capacity of the institutions in the CACs to adopt integrated land-use planning and management;

(c) rehabilitation and improved productivity of selected lands, thereby leading to improved livelihoods, foreign exchange earnings, and food security, and providing indirect protection to threatened ecosystems;

(d) enhanced protection of ecosystem integrity and landscapes.

(e) broader involvement of civil society and other stakeholders in SLM in the CACs; and

(f) sustained and harmonized commitments of financial and human resources through mainstreaming of SLM in development cooperation partner programs and national budgets of the CACs.

**57. Regional (Tajikistan, Kyrgyzstan): Sustainable Land Management in the High Pamir and Pamir-Alai Mountains - and Integrated and Transboundary Initiative in Central Asia (Phase 1) (UNEP)**

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| Focal Area/OP/Strategic Priority: | Land Degradation/OP 15/SP1 & 2 |
| Local Executing Agency: | Government of Pakistan/Ministry of Environment |
| Total Cost of the Project: | $9.65 million |
| GEF Funding Request: | $3.00 million (Phase 1) (+ PDF-B of $650,000) |
| Key Indicators: | 400,000 ha of land brought under improved land management with a demonstration effect on another 1.2 mill ha of land; 20% improvement in carbon stores above and below ground in ecosystems on 3000 ha of land; 10% increase of income from NRM activities and 30% decrease of human vulnerability to land degradation in 48 sub-district units conservation of 10 endangered animal and 20 plant species; at least 5000 stakeholders trained in various aspects of SLM planning and implementation; enabling environment for SLM at the community, national and regional level established. |

Project Rationale:

Land degradation is adversely affecting the structure and functional integrity of the ecosystems of the High Pamir and Pamir-Alai mountains, and threatens their crucial ecological function as the 'water towers' of Central Asia. Continuing degradation within this trans-boundary region will have a negative impact on agricultural productivity and rural livelihoods in the adjacent downstream lowlands, stretching down to the endangered Aral Sea. The project area also lies at the heart of one of Central Asia's mountain biodiversity hotspots. Current levels of habitat degradation are a threat to the survival of many of the region's globally vulnerable species of fauna and flora. Increased poverty and economic vulnerability amongst the inhabitants of the region, following the enforced transformation to a market economy after the collapse of the Soviet Union, lies at the root of much of the current ecosystem degradation. In particular the lack of a reliable and affordable supply of electricity, and the expense of imported fossil fuels (coal, paraffin and diesel) for cooking and heating, has forced people to turn to the exploitation of locally available biomass resources (firewood, shrubs, dung and peat) and this is the principle cause of the most severe land degradation to be found within the region. Addressing the problem of ecosystem degradation, within the High Pamir and Pamir-Alai Mountains, requires an integrated sustainable land management approach. Specifically one that not only leads to ecological improvements, but which will enable the affected rural communities to develop and pursue sustainable livelihoods that will improve their economic well being.

Project Objectives:

The project goal is: to restore, sustain, and enhance, the productive and protective functions of the trans-boundary ecosystems of the High Pamir and Pamir-Alai Mountains, of Tajikistan and Kyrgyzstan, so as to improve the social and economic well-being of the rural communities and households utilizing the region's ecosystem resources to meet their livelihood needs, while preserving its unique landscape and globally important biodiversity.

**The immediate development objective** is: to address the link between poverty, vulnerability and land degradation at the community level, through the promotion of sustainable land management practices that contribute to improving the livelihoods and economic well-being of the inhabitants of the High Pamir and Pamir-Alai Mountains.

**The immediate environmental objective** is: to mitigate the causes and negative impacts of land degradation on the structure and functional integrity of the ecosystems of the High Pamir and Pamir-Alai Mountains through mainstreaming sustainable land management tools and practices from household, community, local government, national to regional levels.

**Project Outputs and Outcomes:**

**Outcome 1:** Enhanced regional cooperation between Tajikistan and Kyrgyzstan creating the enabling regional strategic planning, and national legislative, policy, institutional, technical, and economic incentive, environment, for the sustainable management of the High Pamir and Pamir-Alai mountain ecosystems.

**Outcome 2:** Improved capacity of Tajikistan's and Kyrgyzstan's public and private sector agency research and advisory support service providers to promote sustainable land management within the High Pamir and Pamir-Alai Mountains.

**Outcome 3:** Reduction in rural poverty and economic vulnerability through restoration and enhancement of the productive and protective functions (ecological goods and services) of the High Pamir and Pamir-Alai mountain ecosystems.

**Outcome 4:** Generic guidelines developed for up-scaling and replication of the lessons learnt, from the project's experience with sustainable land management, within comparable trans-boundary mountain regions within Asia and elsewhere.

**58. Burkina Faso: Partnership Programme for Sustainable Land Management (CPP), Phase 1 (UNDP)**

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| Focal Area/OP/Strategic Priority: | Land Degradation/ SLM-1 Targeted Capacity Building/SLM-2 Implementation of Innovative and Indigenous Sustainable Land-Management Practices |
| Local Executing Agency: | National Government, Ministre de l'Environnement et du Cadre de Vie |
| Total Cost of the Project: | $70.71 million |
| GEF Funding Request: | $9.65 million (+ PDF of $350,000) |
| Key Indicators: | Achievement in Phase 1 of sustainable land management and rehabilitation of degraded lands directly in at least 501,000 hectares in four pilot regions, increasing to at least 1,130,000 hectares by the end of Phase 3. |

Program Rationale & Objective:

The Country-Program Partnership (CPP) for Burkina Faso seeks to conserve globally important ecological systems by controlling and preventing land degradation through a well-coordinated collaborative program at the national level. The program will involve government, multilateral and bilateral development agencies, private sector, and local stakeholders. It will focus on sector integration, mainstreaming of SLM in national sustainable development priorities, and harmonized stakeholder collaboration and coordination. The CPP will specifically address the following concerns:

(a) strengthening the enabling environment for policy reforms to support SLM and develop both human and institutional capacity for SLM;
(b) adopting, implementing, and replicating innovative and viable traditional approaches and best practices in SLM;
(c) adopting integrated approaches to SLM, including synergies between environment and other sectors, especially water use efficiency measures; and
(d) promoting effective resource mobilization strategies and cost effectiveness through the use of harmonized project cycles of stakeholders and collaborators.

Program Outcomes:

(a) adoption of integrated SLM program with strong country ownership and leadership;
(b) a strong enabling environment for SLM that includes appropriate policies, regulations and incentives;
(c) strong in-country human and institutional capacity to implement SLM and replication of best practices and approaches for SLM; and
(d) a strong collaborative program for SLM at country level which includes sustainable resource mobilization.

59**. Senegal: Groundnut Basin Soil Management and Regeneration**

Focal Area/OP/Strategic Priority: Land Degradation/SP 1 & 2
Local executing agency:
Total Cost of the Project: $14.096 million
GEF Funding Request: $3.656 million (+ PDF-B of $350,000)
Key Indicators:
The project will demonstrate innovative and indigenous sustainable land management practices in 69,600 hectares of cropland, forestland and rangeland, with indirect replication potential in 46.367 sq. km of the Groundnut Basin, through the promoting of a consensus around programmes and activities through institutional coordination based on the creation and implementation of consultation frameworks involving the various actors.

Rationale and Objective:
The Groundnut Basin covers a total surface area of 46,367 sq. km and an essentially rural population estimated at about 4,000,000 inhabitants, or nearly 40% of Senegal's population. The natural environment in the Groundnut Basin is severely degraded. The main causes of land degradation are anthropic, and are linked to poverty by a cause/effect relationship. Inappropriate agricultural practices (shifting cultivation, stump extraction, reduced fallow periods), devastating bush fires, overcutting, animal pressure, and soil salinization and acidification constantly create imbalances in the ecosystem and cause significant damage to wildlife, pastureland, habitats and tree cover. This host and transit area for livestock displays a desolate landscape during the dry season, with harvesting of branches and high mortality in the woody vegetation formations. This area is characterized on the one hand by soil nutrient depletion due to several decades of groundnut mono-cultivation with much reduced or no fallow periods, resulting in a decrease in crop yields, and on the other hand by a general degradation of the vegetation cover.

The Overall Goal that the project contributes to is the sustainable development of Senegal's rural sector and preservation of ecosystem integrity, stability, functions and services. The Immediate Objective of the project is to catalyze sustainable land management at the landscape level in order to combat land degradation and thereby contribute to poverty reduction.

Project Outcomes and Output:

(a) cropland fertility increased through upscaling innovative, adapted technologies in the Groundnut Basin;
(b) rationalized forest and pasture use through upscaling of best practices;
(c) harmonized policies and local partnerships and stronger capacities for integrated land management at the landscape level;
(d) promote Income Generating Activities compatible with natural resources management and sustainable land management principles; and
(e) adaptive management, lessons learnt and monitoring.

**Multi-Focal Areas**

**60. Regional (Costa Rica, Panama): Sustainable Environmental Management for Sixaola River Basin (IADB)**

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| Focal Area/OP/Strategic Priority: | MFA/OP12- Integrated Ecosystem Management/ Biodiversity/SP1/EM1/IW1/SLM2 |
| Local Executing Agency: | Co-execution by the Ministry of Environment and Energy, Costa Rica and the National Environmental Authority, Panama |
| Total Cost of the Project: | $19.875 million |
| GEF Funding Request: | $3.5 million (+ PDF of $500,000) |

Key Indicators:

The Project will contribute to the following targets and performance indicators established for: (i) Biodiversity (BD-1 and BD-2): (a) the protected areas systems in two countries will be strengthened by incorporating functional mechanisms for transboundary protected area management, including co-management involving indigenous communities; (b) three transboundary protected areas will be supported (141,000 hectares); (c) approximately 16 percent of the Project funding will be directed towards capacity building involving local stakeholders, including indigenous communities; (d) mainstreaming biodiversity conservation in agriculture, tourism and forestry; (e) approximately 2,480 hectares of unsustainable banana production shifted towards more sustainable production and at least an increment of 240 hectares of agro-forestry systems involving indigenous communities; (ii) International Waters (IW-1) by catalyzing financing for implementation of agreed actions and reforms in response to the RSDS; (iii) Integrated Ecosystem Management (EM-1) through capacity building, policy and regulatory reforms, institutional strengthening, development of innovative financial mechanisms and the implementation of innovative and/or indigenous approaches to integrated ecosystem management; and (iv) Sustainable Land Management (SLM-1) by promoting innovative and indigenous sustainable land management practices in both countries.

Program Rationale & Objective:

The main objective of this Regional Strategy for the Sustainable Development of the Sixaola River Bi-National Basin (RSDS) is to guarantee a sustainable social and economic development of the Sixaola Basin and to improve the livelihoods of its population.

The intended objectives of this GEF operation, in combination with the other measures proposed in the RSDS:

(a) conservation and sustainable management of biological diversity, as well as equal distribution of the benefits derived from the management of biodiversity resources;
(b) reduction of emissions and an increase in greenhouse gas storage by the land and aquatic ecosystems;
(c) conservation and sustainable use of water masses in the binational basin, including reduction in vulnerability and community participation in flood management;
(d) elimination of the existing threats to the ecosystem, stemming from the surrounding productive zone;
(e) assist the two countries in providing the necessary economic incentives to ensure the sustainable management of the basin's water masses;

(f) integrated community development to strengthen the capacity of the local and indigenous communities living in the buffer zones and areas of influence of the protected areas;
(g) capacity building to promote conservation and sustainable management of biodiversity resources incorporating indigenous communities; and
(h) promotion of public-private partnerships and the participation of the private sector in the preparation of sustainable development plans.

Program Components

The project will have two main components

(a) sustainable Management of Biodiversity, Natural Resources, Environmental Goods and Services; and
(b) reduction of vulnerabilities in the Sixaola River Basin.

**61. Regional (Albania, Algeria, Bosnia-Herzegovina, Bulgaria, Croatia, Egypt, Lebanon, Libya, Macedonia, Morocco, Serbia and Montenegro, Syria, Tunisia, Turkey): World Bank-GEF Investment Fund for the Mediterranean Sea Large Marine Ecosystem Partnership (Tranche I) (World Bank)**

Focal Area/OP/Strategic Priority: MFA/ IW-OP9/SP-1 and & BD-OP2/SP-1,2,4
Local executing agency: National Governments
Total Cost of the Project: $95 million
GEF Funding Request: $10 million
Key Indicators:

- 15 percent of major hotspots/sensitive areas identified in the TDA are addressed.
- Replication strategy is adopted and initiated in at least 3 countries.
- US$ 100 million replication investments are leveraged.
- US$250 million of project co-financing is secured.
- Measures to address SAP targets are incorporated in at least 7 CASes.
- At least 5 innovative low-cost techniques (such as managed aquifer recharge. engineered wetlands, treated wastewater reuse, etc) are demonstrated.
- 1,000,000 population equivalent of wastewater is treated.
- 5-7 sensitive areas are under effective management.
- Bank IF Coordination team participates in all (100%) SP consultations.
- Bank IF Coordination team organizes and/or participates in at least 5 regional conferences and/or technical workshops in support of the SP objectives.

Rationale & Objective:
Through the years, the GEF has supported the preparation and adoption of the two SAPs (land-based pollution and biodiversity conservation) by all Mediterranean riparian countries and opened the way to the second generation of projects targeted to priority actions agreed upon by the countries. The Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem—with its regional component and investment fund pillars—is the most effective financing modality available to catalyze critical investments from public and private sector for pollution reduction, coastal management, and biodiversity conservation. It promotes the institutional, technical, and financial innovations needed to accelerate implementation and is the logical next step for GEF intervention. Without the catalytic effect of the GEF financing, investments would likely be limited, scattered, and not targeted to reduction of transboundary pollution. Moreover, governments would likely give only marginal attention to the implementation of the SAPs within their financially constrained development programs. The Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem follows the model established by the Strategic Partnership for the Black Sea and Danube Basins, which has been under implementation for about five years and has already successfully achieved many of its targets.

Project Outcomes:

(a) transboundary pollution reduction and biodiversity conservation in priority hotspots and sensitive areas of the Mediterranean Sea identified through the TDA-SAP process are achieved;
(b) in-country replication of pollution reduction and biodiversity conservation investments is initiated;

(c) investments for pollution reduction and biodiversity conservation in selected countries are catalyzed;
(d) SAPs implementation is addressed in World Bank country dialogues;
(e) innovative, cost-effective investments in specific country contexts are promoted;
(f) measurable pollution reduction and biodiversity conservation in support of the SAP targets are achieved; and
(g) knowledge-sharing and cross-fertilization of project achievements among SP partners are facilitated.

**62. Antigua and Barbuda: Demonstrating the Development and Implementation of a Sustainable Island Resource Management Mechanism in a Small Island Developing State (UNDP)**

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| Focal Area/OP/Strategic Priority: | Multi-focal areas/OP12/SLM-1 Targeted Capacity Building /SLM-2 Implementation of Innovative and Indigenous Sustainable Land-Management Practices, BD-2 Mainstreaming Biodiversity into Production Systems |
| Local Executing Agency: | Environment Division, Ministry of Works, Transport and Environment |
| Total Cost of the Project: | $7.896 million |
| GEF Funding Request: | $2.996 million (+ PDF of $197,000) |

Key Indicators:
The project will play a catalytic role in developing and implementing a comprehensive cross-sectoral ecosystem approach that provides for ecosystem functionality and biodiversity conservation within a landscape that enhances sustainable livelihood options and opportunities for sustained economic development. The project will strengthen capacities at the systemic, institutional, and individual level to enable the implementation of innovative approaches to sustainable land management and resource use among key stakeholder groups. Enhanced partnerships between the private and public sectors will optimize integrated land and water management practices in the country, especially in four demonstration projects, covering an area of 11.274 ha, with the aim of generating global benefits for biodiversity.

Program Rationale & Objective:
The project will promote integrated ecosystem management, emphasizing the conservation of globally significant biodiversity and prevention of land degradation in the islands of Antigua and Barbuda. GEF resources will be used to incorporate integrated ecosystem management objectives, principles, techniques, and practices into government policies for land and marine development. The integration of the GEF support into government approaches will promote island-wide economic development in conjunction with sustainable management of local natural resources and securing global environmental benefits. Moreover, by promoting sustainable management of tourism, coastal fisheries, wetlands and mangrove resources, community agriculture, and forestry lands, the project will maintain ecosystem processes and services so that they continue to create and preserve soils, store and distribute water, and regulate coastal and atmospheric conditions.

Program Outcomes:
The project's main outcomes will be:

(a) coordination of inter-sectoral planning and priorities;
(b) environment mainstreamed into sectoral planning and management;
(c) legislation, regulations and policies influencing natural resource use strengthened;
(d) protected area management demonstrated;
(e) sustainable financing developed for government to carry out environmental services, monitoring and enforcement;
(f) public awareness raised on ecosystem management; and
(g) invasive species managed and controlled.

**63. Brazil: Caatinga Conservation and Sustainable Management Project - Mata Branca (World Bank)**

Focal Area/OP/Strategic Priority: MFA/OP12/EM-1,2: Integrated Approach to Ecosystem Management.
Local Executing Agency: State Governments of Bahia and Ceará (Brazil)
Total Cost of the Project: $23.41 million
GEF Funding Request: $10.0 million (+ PDF of $349,000)
Key Indicators:
This project is consistent with the strategic priorities for IEM as it will support: (a) Establishment of an enabling environment for integrated ecosystem management; (b) Institutional development for effective implementation of integrated ecosystem management approaches; and (c) Promotion and dissemination of replicable local demonstration investments in integrated ecosystem management.

Program Rationale & Objective:
The Caatinga is the largest dry forest in South America and is one of the richest dry forests in the world. It is a remarkable repository of biological diversity, provided by a highly heterogeneous mosaic of vegetation. The biological diversity of the Caatinga is threatened by increased human-induced impacts that provoke land degradation, disruptions in water flow regimes and poor water quality, and overexploitation of natural resources. These, in turn, affect the integrity and diversity of ecosystems and the quality of life of the human populations, affected by the risk of irreversible atmosphere and biodiversity change and loss. In the last two decades, approximately 40,000 km² of the Caatinga became deserted due to the interaction between human beings and the environment.

The proposed projects will:

(a) contribute to the protection of Caatinga biodiversity, to the reduction in carbon emissions to the atmosphere, and to greater storage of carbon in Caatinga vegetation, through activites that promote and ensure the conservation and sustainable management of the Caatinga Biome; and
(b) improve the socioeconomic situation and quality of life of the population living in these areas, thus promoting integrated, sustainable development in the Caatinga areas.

To achieve the objectives, the project will include activities that would incorporate:

(a) a statewide approach with regard to Caatinga policy, strategy formulation, assessment, and monitoring, such as Caatinga mapping (areas that are in different stages of preservation and degradation in terms of biodiversity), and education and capacity building for biodiversity conservation, carbon sequestration activities, and the use of fuel efficient technologies; and
(b) targeted interventions in selected pilot demonstration areas - such as the elimination of fire as a land-clearing tool, and adoption of fuel efficient wood stoves - for preservation and rehabilitation of defined landscape units, which would include investments and activities geared towards local populations and

improvements of their livelihood; and (iii) dissemination and public awareness raising.

Project results:

The project will strive for the following results:

(a) improvement in the conservation status of caatinga biodiversity, mitigation of climate change, and reversal of soil degradation processes in demonstration pilot areas;

(b) the conservation of a very important biome, and from mitigation of climate change through an increase in carbon sequestration activities and a decrease in activities that results in carbon emissions into the atmosphere; and

(c) at the local level, improved natural resources base (e.g. better soils, better availability of water resources through restoration and conservation of stream headwaters and riparian vegetation), which is expected to support higher levels of income and better quality of life in the demonstration pilot areas. Also, the new technologies and productive activities that will be introduced are expected to contribute towards better livelihoods for local stakeholders.

## 64. Mozambique: Zambezi Valley Market Led Smallholder Development (World Bank)

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| Focal Area/OP/Strategic Priority: | MFA/ Land Degradation and Adaptation/<br>SP#1 – Targeted capacity building;<br>SP#2 – Implementation of innovative and indigenous sustainable land management practices;<br>SPA – Strategic Priority on Adaptation |
| Local Executing Agency: | National Directorate for the Promotion of Rural Development (DNPDR) of the Ministry of Planning and Development (MPD) |
| Total Cost of the Project: | $27.55 million |
| GEF Funding Request: | $6.2 million (split between OP15=$5.0 million and SPA=$1.5million) (+ PDF of $350,000) |

Key Indicators:
The project will contribute to limiting land degradation and improving the ecosystem's resilience towards climate change in 5 districts of the Central Zambezi Valley. The project will support investments in SLM in agriculture, agroforestry and forestry and promote SLM practices and measures that specifically address adaptation to climate variability. The project will strengthen capacity of rural communities, district and provincial government staff, local NGO's, private sector representatives, among others. The project will adopt a participatory and demand-driven approach, inform the national policy agenda on SLM opportunities and successes and will contribute to implement the National Actions Plans from UNCCD, UNFCCC and CBD.

Program Rationale & Objective:
While the Central Zambezi valley offers significant potential for agricultural development and trade, it is still relatively underdeveloped and has been neglected by donors. The project will address the development constraints and to improve small holder productivity by adopting a community demand driven approach. The project will address the weak organizational capacity of farmers, weak institutional support to smallholders from the government, a lack of access to rural credit, the use of ineffective farming methods that lead to land degradation and low productivity, poor rural infrastructure development for roads, irrigation and markets, and little capacity to adapt to extreme climate patterns such as droughts and floods.

The overall project goal of the project is to accelerate agricultural growth and poverty reduction within the Central Region of Mozambique in line with PARPA priorities while limiting land degradation and improve ecosystem's resilience towards climate change in the Central Zambezi Valley. The immediate project development objective is to increase the income of smallholder farmers in selected districts by empowering producers and building their organizations, increasing on- and off-farm production and productivity and facilitating access to markets.

Program Components
Component 1: Producer Group Development and community based natural resources management
Component 2: Agricultural Production and Marketing System Support
Component 3: Small-Scale Investment Fund (incl. Eco-Friendly Activity Fund)
Component 4: Project Coordination, Management and Monitoring

**65. Philippines: National Program Support for Environment and Natural Resources Management Project (NPS-ENRMP) (World Bank)**

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| Focal Area/OP/Strategic Priority: | MFA/OP12; EM-1: Integrated Approach to Ecosystem Management;<br>SLM-1: Capacity Building; SLM-2: Implementation of Innovative and Indigenous Sustainable Land Management Practices;<br>Biodiversity/SP1-Catalyzing Sustainability of Protected Areas/SP2- Mainstreaming biodiversity in the production landscapes and sectors |
| Local Executing Agency: | Department of Environment and Natural Resources Management (DENR); Local Government Units |
| Total Cost of the Project: | $57.35 million |
| GEF Funding Request: | $7.0 million (+ PDF of $350,000) |
| Key Indicators: | 217,000 ha of protected areas more effectively managed; 60 percent of PAs using PA management effectiveness tool; SLM practiced in areas covering 264,000 ha; 25 percent decline in areas under slash and burn agriculture |

Program Rationale & Objective:
For the Philippines, it is critical that a robust sector-wide approach for natural resources management be designed and implemented to ensure increased effectiveness and efficiency in GEF and other donor operations in Philippines.

The project will contribute to sustainable growth and improved environment and natural resources management through its support to the development and implementation of appropriate polices and practices. The GEF component will assist the GoP in enhancing ecosystem services for global and additional local benefits. This would be achieved by establishing and implementing integrated and effective systems for protection and management of natural resources in select priority areas of global significance. The project will contribute to the conservation and sustainable use of biodiversity, including improved protection and management of watersheds, river basins and coastal areas; climate change benefits, through carbon sequestration; and sustainable land management. National benefits resulting from complementary baseline activities would come from stabilizing ecosystems and improving productive capacity of watersheds thereby reducing economic vulnerability of the rural poor and contributing to poverty reduction.

Program Components:
The project will have the five components:

Component 1: Environment Information, Planning & Monitoring System.
Component 2: Strengthening Institutional Capacity and Service Delivery.
Component 3: Strengthening the safeguards and environmental management system.
Component 4: Integrated Watershed Management, Training and Awareness.
Component 5: Technical Assistance to mining activities.

**66. Sri Lanka: Participatory Coastal Zone Restoration and Sustainable Management in the Eastern Province of Post-Tsunami Sri Lanka (IFAD)**

Focal Area/OP/Strategic Priority: MFA/Land Degradation and Adaptation/ SLM-1 Targeted Capacity Building/SLM-2 Innovative and Indigenous SLM Practices, with linkages to BD 2 Mainstreaming Biodiversity in Production Landscapes and Sectors, and BD 4 Generation and Dissemination of Best Practices for Addressing Current and Emerging Biodiversity Issues and Adaptation.

Local Executing Agency: Ministry of Fisheries and Aquatic Resources, Coast Conservation Department

Total Cost of the Project: $14.839 million

GEF Funding Request: $6.92 million (+ PDF of $350,000)

Key Indicators:

The project promotes the restoration and sustainable use of ecosystems along the eastern coast of Sri Lanka damaged by the Indian Ocean tsunami. It is designed to overcome three key barriers to the restoration of coastal ecosystems and to catalyze a replicable low-cost system, mainstreaming restoration into the Government of Sri Lanka's reconstruction program. By end of the project, at least 1,000 hectares of coastal lagoons, 75 hectares of sand dunes, and 250 hectares of mangroves will have been rehabilitated and be under sustainable management. By the end of year 3, all Government of Sri Lanka and donor reconstruction programs and projects will include an ecosystem restoration and sustainable management component, bringing an unquantifiable area of various ecosystems under similar management.

Program Rationale & Objective:

The tsunami in December 2004 greatly affected Sri Lanka. The project will help to restore those ecosystems suffering damage from the tsunami and to combat human activity-based factors that had led to their degradation and destruction prior to this cataclysmic event, thereby protecting the integrity and functions of the natural ecosystem resources of the Eastern Province's coast. Moreover, the project will mainstream climate change adaptation issues into policies and plans for coastal zone management since sea-level rise will greatly affect these areas. Hence, the project will protect the restored natural resources of the eastern coast while improving the livelihoods of the rural poor in the Eastern Province.

These goals will be achieved by providing support to the Government of Sri Lanka to implement the Post Tsunami Rehabilitation and Coastal Communities Resource Management Program, funded through an IFAD negotiated loan, of which this GEF project is a component.

Program Outcomes:

(a) coordination of intersectoral planning and priorities;
(b) environment mainstreamed into sectoral planning and management;
(c) legislation, regulations and policies influencing natural resource use strengthened.
(d) protected area management demonstrated;
(e) sustainable financing developed for government to carry out environmental services, monitoring, and enforcement;
(f) public awareness raised on ecosystem management; and
(g) invasive species managed and controlled.

**Persistent Organic Pollutants**

**67. Global (Argentina, India, Lebanon, Philippines, Senegal, Vietnam, Latvia, Tanzania) : Demonstrating and Promoting Best Techniques and Practices for Reducing Health-care Waste to Avoid Environmental Releases of Dioxins and Mercury (UNDP)**

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| Focal Area/OP/Strategic Priority: | POPs/OP14 (draft)/SP3/linkages with OP10 |
| Local Executing Agency: | UNOPS in collaboration with WHO and HCWH, Governments in participating countries |
| Total Cost of the Project: | $24.596 million |
| GEF Funding Request: | $10.326 million (+ PDFs of $725,000) |
| Key Indicators: | At least one "model facility" in each participating country demonstrates best practices for health care waste management. At least one alternative technology installed and fully operational in each participating country. At least one manufacturer in Africa is commercially manufacturing the designed technologies. Comprehensive national training programs specific to health care waste management are established in all participating countries. |

Rationale & Objective:
The health sector is a major source of dioxins and mercury in the global environment primarily as a result of medical waste incineration and the breakage and improper disposal of mercury-containing devices, such as thermometers and sphygmomanometers. As health systems are strengthened and health-care coverage expanded in developing countries through efforts to meet the Millennium Development Goals, the releases of persistent organic pollutants and other persistent toxic substances to the environment can increase substantially.
The Project aims to demonstrate and promote replication of best environmental practices and techniques for health care waste management through model facilities and programs, along with reducing barriers national implementation of these strategies. The project is designed to assist the participating countries in developing and sustaining best practices in a way that is both locally appropriate and globally replicable. An additional component in Tanzania will develop, test, and disseminate affordable and effective alternative health care waste treatment technologies appropriate to conditions in Sub-Saharan Africa.

Project Outputs:

(a) programs exemplifying health-care waste management best practices established in model facilities;
(b) appropriate commercially-available, non-incineration health care waste treatment technologies are deployed and evaluated;
(c) appropriate and affordable, small-scale non-incineration technologies for Sub-Saharan African facilities developed, tested, manufactured, and deployed;
(d) mercury-free devices introduced in model facilities and evaluated for their acceptability and efficacy;

(e) capacity-building training programs established to promote best practices and appropriate technologies implementation beyond the model facilities and programs; and

(f) results on demonstrated best techniques and practices disseminated to relevant stakeholders for scaling up nationally and globally.

**68. Regional (Nigeria, Ghana) : Regional Project to Develop Appropriate Strategies for Identifying Sites Contaminated by Chemicals listed in Annexes A, B and/or C of the Stockholm Convention (UNIDO)**

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| Focal Area/OP/Strategic Priority: | POPs/OP14 (draft)/SP3 |
| Local Executing Agency: | UNIDO Regional Office; Federal Ministry of Environment of Nigeria, and Ghana EPA |
| Total Cost of the Project: | $4.65 million |
| GEF Funding Request: | $2 million (+ PDF-B of $650,000) |
| Key Indicators: | Policy and regulatory framework for the management of sites contaminated with POPs wastes developed in each country. Increased capacity in each of the participating countries for management of sites contaminated with POPs wastes. Pilot site experiments of low-cost technology for site remediation carried out, analyzed, and disseminated. |

Rationale & Objective:
Developing countries, as with other countries, are faced with a legacy of land contaminated by POPs at levels that can potentially harm human health and the environment, and can prevent such land from being developed. The project seeks to build capacity and strengthen institutional arrangements and develop appropriate strategies for identifying sites contaminated by chemicals listed in annexes A, B, and/or C of the Stockholm Convention, and other persistent toxic substances when these are closely associated with POPs wastes. The project will also assess the viability of environmentally sound and low-cost remediation technologies.

Project Outcomes:

(a) establish national regulatory frameworks for the management of sites contaminated by POPs and other toxic chemicals;
(b) strengthen national capacity in Ghana and Nigeria to develop and implement strategies for the management of sites contaminated by POPs;
(c) publish and disseminate case studies (two in each country) for the selection and deployment of environmentally sound and economically feasible remediation technologies; and
(d) develop and disseminate tool-kit for management of contaminated sites, including site identification, technology selection framework, and stakeholder consultation and participation.

**69. Brazil: Development of a National Implementation Plan in Brazil as a First Step to Implement the Stockholm Convention on Persistent Organic Pollutants (POPs) (UNEP)**

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| Focal Area/OP/Strategic Priority: | POPs/Enabling Activities/SP-1 |
| Local Executing Agency: | Ministry of Environment |
| Total Cost of the Project: | $3.529 million |
| GEF Funding Request: | $1.499 million (+ PDF-B of $350,000) |
| Key Indicators: | Submission by the Government of Brazil to the Conference of the Parties (COP) to the Stockholm Convention of a National Implementation Plan (NIP). Intermediate indicators include action plans for the management of PCBs and the reduction of unintentionally produced POPs, along with inventories and draft strategies for management of POPs wastes. |

Rationale & Objective: The proposal is a response to Convention requirement that each party submit a NIP to the COP within two years of entry into force of the Stockholm Convention for that party (Art. 7). It is designed to strengthen both the institutional and human resource capacity for the management of POPs in Brazil and the policy and regulatory framework to facilitate the environmentally sound management of POPs and other chemicals as well as products and articles containing or contaminated by POPs.

The project design follows the broad structure of the Initial Guidelines for Enabling Activities for the Stockholm Convention on POPs (GEF/C.17/4, May 2001) and the more recent guidance prepared by UNEP and the World Bank and adopted by the Conference of the Parties at its first meetings. (UNEP/POPS/COP.1/31 SC-1/12).

Project Outcomes:

(a) identification of stockpiles, products, and articles in use that contain or are contaminated by POPs, including those newly proposed for listing under the Convention;
(b) identification of wastes consisting of, containing, or contaminated by POPs;
(c) national inventory of PCBs and equipment containing PCBs and other articles with PCBs;
(d) strategy for the sound management and phase out of PCBs and PCB equipment;
(e) assessment of the potential for releases of unintentionally produced POPs from anthropogenic sources;
(f) development of measures for the progressive reduction of releases and elimination of sources of unintentionally produced POPs;
(g) development of national management system for Stockholm Convention;
(h) development of national and provincial policy, legal, regulatory and promotional frameworks to meet Convention requirements;
(i) public awareness and education programs and materials; and
(j) draft National Implementation Plan.

**70. China : Alternatives to DDT Usage in the Production of Anti-fouling Paint (UNDP)**

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| Focal Area/OP/Strategic Priority: | POPs/OP14 (draft)/SP-2/linkages with OP10 |
| Local Executing Agency: | FECO/SEPA |
| Total Cost of the Project: | $24.155 million |
| GEF Funding Request: | $11.61 (+ PDF-B of $295,000) |
| Key Indicators: | Elimination of 250 tons per year of DDT emissions from production of antifouling paint. Related regulations, standards and action plans will be established or revised, supported by capacity development, to create an enabling policy environment to sustain the phase out. |

Rationale & Objective:
Antifouling paint used by small and medium fishing ships in China contains DDT—a usage that was long abandoned in other parts of the world and for which no exemption exists under the Stockholm Convention. China is the only country that has reported such a usage. The amount of DDT in antifouling paint is approximately 5 percent by weight, leading to an estimated release to the environment of 250 tons of DDT per annum. Most of the antifouling paint that does not contain DDT (about 50 percent) is TBT-based, which can cause environmental degradation as well since TBT is a potent endocrine disruptor, the usage of which is curtailed by a convention under the IMO.

The project seeks to phase out the use of DDT in antifouling paint and to promote the production, distribution, and use of alternative products, while encouraging China to phase out TBT as well in the longer term.

Project Outcomes:

(a) project management institutions with improved managerial and technical capabilities for effective project implementation and management and coordination mechanism;
(b) the establishment of a Management Information System (MIS) for data collection, processing, and analysis, and information transmission and sharing, which will support long-term reporting requirement after completion of the project;
(c) establishment or revision of regulations and standards and an action plan supported by capacity building to create an enabling policy environment for phase out of DDT-based antifouling paint and promotion of sustainable alternatives;
(d) conversion from DDT-based antifouling paints to alternatives;
(e) improved understanding of the key stakeholders and the public of the harm of DDT and TBT-based antifouling paints and the benefits of alternatives; and
(f) effective monitoring and evaluation of project implementation and achievement of results.