

## **OPERATIONAL PROGRAM NUMBER 1 ARID AND SEMI-ARID ZONE ECOSYSTEMS**

1.1 Arid and semi-arid lands include the tropical grassland and savannah/woodland savannah, the warm desert and semi-desert, temperate grasslands, tundra communities, and cold deserts biomes.<sup>1</sup> These lands cover over one third of the earth's land surface and are home to over 900 million people. Many important food crops originate from drylands. Indigenous crops and fruits from drylands are known for their resistance to disease, stress, and adaptability and are valuable sources for plant breeding. Arid and semi-arid lands are notable for their within-species genetic diversity, rather than between-species variation or species richness. Yet they contain a significant endowment of plants and animal species, including micro-organisms. Arid land species exhibit notably a restrictive geographical distribution (endemism) and a wide range of morphological, physical, and chemical adaptation to their harsh environment. These ecosystems provide critical habitats for wildlife and ecosystem diversity, including wetlands for migratory species, but are under severe threat.

### **GUIDANCE**

1.2 This Operational Program responds to the three sets of guidance provided by the Conference of the Parties (CoP) of the Convention on Biological Diversity (CBD) to the GEF as the institutional structure operating the financial mechanism on an interim basis. The first set of guidance is from the first CoP<sup>2</sup> and includes policy, strategy, and eligibility criteria, as well as program priorities among which are the following related to arid and semi-arid zone ecosystems:

- (a) Projects that promote the conservation and sustainable use of biological diversity ... in other environmentally vulnerable areas such as arid and semi-arid; and<sup>3</sup>
- (b) Projects that promote the conservation and/or sustainable use of endemic species.<sup>4</sup>

1.3 At its second meeting, the CoP approved the second set of guidance,<sup>5</sup> concerning *inter alia* finance for measures for conservation and sustainable use and for in-situ

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<sup>1</sup> Classification of Biogeographical Provinces of the World (Udvardy, 1975).

<sup>2</sup> Document UNEP/CBD/COP/I/17, Policy, Strategy, Programme Priorities and Eligibility Criteria for access to and utilization of financial resources of the Convention on Biological Diversity. Annex 1, pages: 33-34.

<sup>3</sup> Ibid. 4(k).

<sup>4</sup> Ibid. 4(l).

conservation,<sup>6</sup> and preliminary consideration of components of biodiversity under threat.<sup>7</sup>

1.4 Although not specifically directed to the GEF, the second CoP also reaffirmed that “the ecosystem approach should be the primary framework of action to be taken under the Convention”<sup>8</sup> and stressed the need “to identify the driving forces determining the status and trends of components of biological diversity.”<sup>9</sup> The ecosystem approach is followed in the Operational Programs and identification of driving forces is stressed.

1.5 At its third meeting, the Conference of the Parties (COP) of the Convention on Biological Diversity (CBD) approved additional guidance for the GEF. The guidance is directly relevant to, and can be fulfilled through Enabling Activities, long-term Operational Programs, and/or Short-term Response Measures. In addition, the operational response to the guidance on agrobiodiversity will be consolidated in an operational policy note on the treatment of agrobiodiversity in the context of the four current Operational Programs in biological diversity. Pertinent references have been included in the Operational Criteria for Enabling activities and the operational policy work of the Secretariat.

1.6 The Conference of the Parties:<sup>10</sup>

- (a) urged Implementing Agencies to enhance cooperation to increase efforts to improve processing and delivery systems;
- (b) asked GEF to “...provide financial resources to developing countries for country-driven activities and programmes, consistent with national priorities and objectives...”<sup>11</sup> on the following topics: capacity building in biosafety, including implementation by developing countries of the UNEP International Technical Guidelines on Safety in Biotechnology; capacity building for initial assessment and monitoring programs, including taxonomy; supporting efforts for the conservation and sustainable use of biological diversity important to agriculture; and capacity building and country driven pilot projects on the Clearing-house Mechanism (CHM);

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<sup>5</sup> A Call to Action: Decisions and ministerial statement from the Second Meeting of the Conference of the Parties to the Convention on Biological Diversity. Jakarta, Indonesia, 6-17 November, 1995.

<sup>6</sup> Ibid. Decision II/6 11, referring to decision II/7 on Articles 6 and 8 of the Convention.

<sup>7</sup> Ibid. Decision II/6 11, referring to decision II/8, para 2.

<sup>8</sup> Ibid. Decision II/8 , para1.

<sup>9</sup> Ibid. Decision II/8, para 3.

<sup>10</sup> UNEP/CBD/COP/3/38, annex II, Decision III/5.

<sup>11</sup> Idem, para 2.

- (c) reconfirmed the importance and requested support for incentive measures;
- (d) urged capacity building efforts to implement measures and guidance on access to genetic resources;
- (e) requested GEF to examine the support of capacity building for indigenous and local communities embodying traditional lifestyles;
- (f) requested GEF to incorporate targeted research and promotion of awareness activities when relevant to project objectives and consistent with national priorities; and
- (g) requested GEF to collaborate with the CBD Secretariat in preparing a proposal on the means to address the fair and equitable sharing of the benefits arising out of genetic resources including assistance to developing country Parties.

1.7 The Conference of the Parties<sup>12</sup> requested GEF to make financial resources available to developing country Parties for urgent implementation of relevant aspects of Articles 6 and 8 concerning general measures for conservation and sustainable use and for in-situ conservation.

1.8 The present Operational Program responds to the above decisions.

### **PROGRAM OBJECTIVE**

1.9 The objective of this Operational Program is the conservation and sustainable use of the biological resources in arid and semi-arid zone ecosystems.

- (a) **Conservation**<sup>13</sup>, or in-situ protection, will be sought through protection of systems of conservation areas, focusing primarily on countries in Africa and in the Mediterranean type climatic zone threatened by increased pressure from intensified use, drought, and desertification, which lead to land degradation; and
- (b) **Sustainable use**<sup>14</sup> management will be sought by combining production, socio-economic, and biodiversity goals. The Operational Strategy calls for

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<sup>12</sup> Idem, Decision III/9, paras 2, 3, and 4.

<sup>13</sup> GEF Operational Strategy, Chapter 2, pages 17-18.

<sup>14</sup> Idem, pages: 18-19.

a range of uses from strict protection on reserves through various forms of multiple use with conservation easements to full scale use.

1.10 The key assumptions are as follows:

- (a) **Scope.** Conservation and sustainable use will be achieved in specific ecosystems that are identified as priorities within National Biodiversity Strategies or other national plans such as UNCED reports, National Environment Action Plans, etc. It is assumed that protecting a number of dryland ecosystems that are national priorities will, overall, result in a sufficiently representative coverage of habitat types to fulfill the objective of the Operational Program; and
- (b) **Replication.** Successful outcomes will be replicated elsewhere on the basis of the experience and learning gained.

#### **EXPECTED OUTCOMES**

1.11 A successful outcome is one where globally important biodiversity has been conserved or sustainably used in a specific arid or semi-arid ecosystem.

#### **Monitoring outcomes**

1.12 Outcomes would be monitored and evaluated by measuring key indicators of ecosystem structure and function, and of sustainable use. Examples of monitoring and evaluation methodologies and tools include:

- (a) surveys of dryland vegetation cover and composition; measures of the plant vigor, age, diversity, species density, and age class; other measures of the population of native species, showing these to be high enough to be viable in-situ;
- (b) surveys of fauna performance -- population change, wildlife calving, and weight gains etc.;
- (c) indicators of ambient threats such as air and water pollution and induced or excessive divergence, soil erosion and its underlying causes, or landslides, showing these to be below critical thresholds;
- (d) measures of the population of key alien, invasive species;

- (e) ecological surveys within dryland conservation areas, showing the maintenance of species diversity and endemism and the presence and abundance of indicator or keystone species;
- (f) appropriate indicators for monitoring of the process of rehabilitation efforts; and
- (g) surveys of impacts on the livelihoods and participation of indigenous and local communities and surveys of impacts on biodiversity from these communities.

### **Assumptions and risks to achieving the outcomes**

1.13 A key assumption is that Implementing Agencies, in their regular work programs, will assist countries to analyze the causes<sup>15</sup> of biodiversity loss at the ecosystem level, which could include demographic and economic factors, and to identify and implement national plans that address such root causes. Supplementing this baseline course of action, GEF can assist with additional actions to address driving forces or proximate causes of biodiversity loss and unsustainable use.

1.14 There are some risks to achieving successful outcomes at the ecosystem level through conservation and sustainable use activities and these risks will be addressed through emphasis on good project design. The following important risk-reducing steps will need to be confirmed in project proposal documents:

- (a) **Complementarity.** The necessary complementary activities, such as expected policy changes and the availability of bilateral and other sources of finance, will take place;
- (b) **Size.** Large protected areas which are less isolated from other natural areas are expected to be richer in terms of species and more stable in terms of retaining the species they contain. Any protected dryland area should be large enough, and the practice of sustainable use of resources in the surrounding productive landscape should be widespread enough, to ensure that the most threatened and endangered components of arid or semi-arid zone biodiversity will be protected; and
- (c) **Absorptive capacity.** The absorptive capacity of agencies and NGOs to implement the GEF activity and all the other activities necessary for protecting the ecosystem and use available funds effectively.

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<sup>15</sup> World Resources Institute, 1992. Global Biodiversity Strategy, pages: 12-18.

## PROJECT OUTPUTS

1.15 Outputs of individual GEF activities in arid or semi-arid ecosystems would be monitorable. Examples include:

- (a) **Protected areas.** Well established systems of conservation units with effective management plans;
- (b) **Threat removal.** Removal of the causes of biodiversity loss and the specific threats to the ecosystem arising in the surrounding productive landscape, e.g., through reduced fragmentation;
- (c) **Sectoral integration.** Incorporation of biodiversity protection into the main productive sectors of the economy and integrated community development addressing livelihood issues of local and indigenous communities living in the buffer zone and areas of influence of protected areas;
- (d) **Sustainable use.** Sustainable livestock grazing, hunting, and tourism as well as sustainable use of commercial and industrial products of drylands, e.g. gums, resins, plant-based waxes, oils, and biocides; and
- (e) **Institutional strengthening.** Stronger institutions and well-trained staff to address these issues.

## **GEF ACTIVITIES**

1.16 GEF can support<sup>16</sup> investment, technical assistance, capacity building (institutional strengthening, human resource development, and information exchange, including participation in the Clearing-house Mechanism), policy, public education, and targeted research. Through these means, GEF will help to finance the conservation of biodiversity and sustainable use.

1.17 Typical conservation activities are:

- (a) demarcating, gazetting, strengthening, expanding, and consolidating conservation areas;
- (b) assessing the impact of natural disturbances and the compound effect of anthropogenic stress;
- (c) control of alien, invasive species;
- (d) capacity building for biosafety activities formulated on a case-by-case basis in the context of a specific project responding to country-driven national priorities;
- (e) identifying components of biological diversity important for its conservation with regard to the indicative list of Annex I of the CBD;
- (f) identifying processes and categories of activities which have or are likely to have significant adverse impacts on the conservation of biodiversity;
- (g) piloting selected activities that are country-driven national priorities and which develop and/or test methods and tools, such as rapid biological/ecological/social assessment, geographic information systems, and data analysis systems of importance for the conservation of biodiversity;
- (h) demonstrating and applying techniques to conserve biodiversity important to agriculture, such as wild relatives of domesticated plants and animals;
- (i) supporting capacity building efforts that promote the preservation and maintenance of indigenous and local communities' knowledge,

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<sup>16</sup> GEF Operational Strategy, Chapter 2, Biodiversity, pages: 17-21.

innovation, and practices relevant to conservation of biological diversity with their prior informed consent and participation;

- (j) incorporating components for targeted research important for biological diversity conservation when relevant to project objectives and consistent with national priorities; and
- (k) including sustainable use awareness components when relevant to project objectives and consistent with national priorities.

1.18 To maintain biodiversity and the diversity of biological resources, GEF sustainable use activities will be supported in arid and semi-arid ecosystems. Sustainable development activities that integrate biodiversity and biological resource concerns are central to and a necessary foundation for national sustainable development goals. Typical GEF sustainable development activities would be in areas surrounding critical habitats that require integration of biodiversity protection and sustainable development into sectoral plans. In addition, consistent with the incremental cost approach, GEF could pay for modification of activities so they incorporate and add protection to biodiversity or biological resources. Typical examples are of the first approach are:

- (a) integrating biodiversity conservation and sustainable use objectives in land use and natural resource use management plans;
- (b) piloting projects providing alternative livelihoods for local and indigenous communities residing in buffer zones of globally important biological areas;
- (c) strengthening capacity building for biosafety activities which will be formulated on a case-by-case basis in the context of a specific project responding to country-driven national priorities;
- (d) identifying components of biological diversity important for its sustainable use, with regard to the indicative list of Annex I of the CBD;
- (e) identifying processes and categories of activities which have or are likely to have significant adverse impacts on the sustainable use of biodiversity;
- (f) piloting selected activities that are country-driven national priorities and which develop and/or test methods and tools, such as rapid biological/ecological/social assessment, geographic information systems, and data analysis systems of importance for the sustainable use of biodiversity;

- (g) demonstrating and applying techniques to sustainably manage biodiversity important to agriculture, such as wild relatives of domesticated plants and animals;
- (h) supporting capacity building efforts that promote the preservation and maintenance of indigenous and local communities' knowledge, innovation, and practices relevant to the sustainable use of biological diversity, with their prior informed consent and participation;
- (i) incorporating components for targeted research important for the sustainable use of biological resources when relevant to project objectives and consistent with national priorities; and
- (j) including sustainable use awareness components when relevant to project objectives and consistent with national priorities.

1.19 Typical examples of activities that could be modified specifically to protect biodiversity:

- (a) integrated rural development on a sustainable basis, e.g. range management may need to involve not only livestock, but also agriculture, infrastructure, marketing, wildlife, and tourism;
- (b) soil conservation and restoration of degraded areas to conserve biodiversity;
- (c) natural resources management activities which emphasize integrated resource use with conservation and development, such as use of water resources and its distribution in order to spread out grazing pressure and prevent vegetation deterioration;
- (d) energy conservation projects that emphasize conservation of trees and alternative energy sources to conserve the natural vegetation; and
- (e) establishment of long-term cost recovery mechanisms and financial incentives for sustainable use.

### **Project risks**

1.20 Project proposals would also address the main risks to being able to reach the desired outputs by:

- (a) **Best practice.** Using and adapting best practice for GEF activities, and best available knowledge to establish the necessary baseline and indicators to monitor impacts; and
- (b) **Local communities.** Ensuring that programs are culturally sound, that they fit local customs and gain strength from community dynamics, and that the people recognize and receive benefits; ensuring local participation in natural resources management from the start; and ensuring that local communities respect the limits on biological resource extraction.

### **Inter-Agency Coordination**

1.21 The activities would be coordinated with the past, ongoing, and prospective work of the Implementing Agencies and others. These will include experience gained, lessons learned, and dissemination of experience from the Pilot Phase activities, and the experience of multilateral, bilateral, and private institutions, the international and national NGO community, and international, regional, and national research centers and academic institutions.

### **Land Degradation**

1.22 Increased incidences of drought, intensive pressure of people on the land, and improper land use practices are leading to a deterioration of these lands and their biodiversity. Land degradation in developing countries is usually marked by poverty and human suffering, making it difficult to conserve biodiversity without alleviating human suffering. Despite the basic resilience of these ecosystems, once key thresholds are passed, recovery becomes almost impossible.

1.23 Arid and semi arid lands have suffered some of the worst forms of degradation, due to their fragility and increased pressure from growing and partially sedentarized populations. Projects in the conservation of ecosystems and integrated land use will also naturally alleviate the problems of land degradation. However, there will be areas which have been degraded to the extent that they will need special measures within the projects to address the issues of rehabilitation and their future rational management. Components addressing these specific issues will be developed within both types of GEF activity: conservation and sustainable use.

### **PUBLIC INVOLVEMENT**

1.24 It is one of ten basic operational principles for the GEF that its projects will provide for consultation with, and participation as appropriate of, the beneficiaries and affected groups of people. The GEF Council approved a paper on *Public Involvement in*

*GEF-financed Projects* that defines the procedures for information dissemination, consultation, and stakeholder participation, including the following:

- (a) that there should be emphasis on local participation and local stakeholders; and
- (b) that specific conditions in-country should be taken into consideration.

1.25 These principles respond to the guidance of the CoP.<sup>17</sup> Strategic partnerships will be sought, where possible, between all relevant stakeholders (e.g., government, NGOs, academia, the private sector, local communities, and indigenous groups), each group collaborating based on comparative advantage. Projects to implement the Operational Program will clarify the conditions of cooperation and contain transparent mechanisms to ensure the active participation of relevant stakeholders in the planning, implementation, and monitoring of project activities. Partnerships will be appropriate to local conditions and build on local expertise.

## **RESOURCES**

1.26 GEF resources will be used to meet the incremental costs of activities in this Operational Program. The financial resources required over the period of the first three years are estimated to be approximately US \$160 million. Arid and semi-arid lands occur in frontier areas and are vast. Communication tends to be difficult and raises the costs of project implementation in these areas. The first two years will see a build up of projects to a level of \$135 million after which the last years of this planning period will see reduced activity to the \$25 million level. The above projections take into account the uncertainty of droughts in this environment which might call for some short term measures to save certain critical biodiversity, especially in wetlands.

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<sup>17</sup> Decision II/6, para 10, page 22 and Idem Decision III/5.

## **OPERATIONAL PROGRAM NUMBER 2 COASTAL, MARINE, AND FRESHWATER ECOSYSTEMS**

### **GUIDANCE**

2.1 This Operational Program responds to the three sets of guidance provided by the Conference of the Parties (CoP) of the Convention on Biological Diversity (CBD) to the GEF, as the institutional structure operating the financial mechanism on an interim basis. The guidance from the first meeting the CoP<sup>1</sup> provided *inter alia* program priorities, including:

- (a) Projects that promote the conservation and sustainable use of biological diversity of coastal and marine resources under threat; and
- (b) Projects which promote the conservation of biological diversity and sustainable use of its components in other environmentally vulnerable areas<sup>2</sup>.

2.2 At its second meeting, the CoP approved additional guidance,<sup>3</sup> concerning *inter alia* finance for measures for conservation and sustainable use and for in-situ conservation,<sup>4</sup> and preliminary consideration of components of biodiversity under threat.<sup>5</sup> The CoP also forwarded to GEF recommendations on the conservation and sustainable use of marine and coastal biological diversity<sup>6</sup>, encouraging *inter alia* “the use of integrated marine and coastal area management as the most suitable framework for addressing human impacts on marine and coastal biological diversity and for promoting conservation and sustainable use of this biodiversity.”<sup>7</sup>

2.3 Although not specifically directed to the GEF, the CoP also reaffirmed that “the ecosystem approach should be the primary framework of action to be taken under the Convention”<sup>8</sup> and stressed the need “to identify the driving forces determining the status and trends of components of biological diversity.”<sup>9</sup> The ecosystem approach is followed in the Operational Programs and identification of driving forces is stressed.

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<sup>1</sup> Document UNEP/CBD/CoP/I/17, Policy, Strategy, Programme Priorities and Eligibility Criteria for access to and utilization of financial resources of the Convention on Biological Diversity. Annex 1, pages: 33-34.

<sup>2</sup> Ibid. 4(k).

<sup>3</sup> A call to Action: Decisions and ministerial statement from the Second Meeting of the Conference of the Parties to the Convention on Biological Diversity. Jakarta, Indonesia, 6-17 November, 1995.

<sup>4</sup> Ibid. Decision II/6 11, referring to decision II/7 on Articles 6 and 8 of the Convention.

<sup>5</sup> Ibid. Decision II/6 11, referring to decision II/8, para 2.

<sup>6</sup> Ibid. Decision II/10 11, referring to the whole of decision II/8 and its annexes.

<sup>7</sup> Ibid. Decision II/10, para 2.

<sup>8</sup> Ibid. Decision II/8, para 1.

<sup>9</sup> Ibid. Decision II/8, para 3.

2.4 At its third meeting, the Conference of the Parties (CoP) of the Convention on Biological Diversity (CBD) approved additional guidance for the GEF. The guidance is directly relevant to, and can be fulfilled through Enabling Activities, long-term Operational Programs, and/or Short-term Response Measures. In addition, the operational response to the guidance on agrobiodiversity will be consolidated in an operational policy note on the treatment of agrobiodiversity in the context of the four current Operational Programs in biological diversity. Pertinent references have been included in the Operational Criteria for Enabling Activities and the operational policy work of the Secretariat.

2.5 The Conference of the Parties:<sup>10</sup>

- (a) urged Implementing Agencies to enhance cooperation to increase efforts to improve processing and delivery systems;
- (b) asked GEF to “...provide financial resources to developing countries for country-driven activities and programmes, consistent with national priorities and objectives...”<sup>11</sup> on the following topics: capacity building in biosafety including for the implementation by developing countries of the UNEP International Technical Guidelines on Safety in Biotechnology; capacity building for initial assessment and monitoring programs, including taxonomy; supporting efforts for the conservation and sustainable use of biological diversity important to agriculture; and for capacity building and country driven pilot projects on the Clearing-house Mechanism (CHM);
- (c) reconfirmed the importance and requested support for incentive measures;
- (d) urged capacity building efforts to implement measures and guidance on access to genetic resources;
- (e) requested GEF to examine the support of capacity building for indigenous and local communities embodying traditional lifestyles;
- (f) requested GEF to incorporate targeted research and promotion of awareness activities when relevant to project objectives and consistent with national priorities; and

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<sup>10</sup> UNEP/CBD/CoP/3/38, annex II, Decision III/5.

<sup>11</sup> *Idem*, para 2.

- (g) requested GEF to collaborate with the CBD Secretariat in preparing a proposal on the means to address the fair and equitable sharing of the benefits arising out of genetic resources including assistance to developing country Parties.

2.6 The Conference of the Parties<sup>12</sup> requested GEF to make financial resources available to developing country Parties for urgent implementation of relevant aspects of Articles 6 and 8 which concern with general measures for conservation and sustainable use and for in-situ conservation.

2.7 The present Operational Program responds to the above decisions.

### **PROGRAM OBJECTIVE**

2.8 The objective of this Operational Program is the conservation and sustainable use of the biological resources in coastal, marine, and freshwater ecosystems generally (including lakes, rivers and wetlands, and island ecosystems). The needs of tropical island ecosystems will receive special attention.

- (a) **Conservation**<sup>13</sup> can be ensured by ecosystem functioning through the establishment and strengthening of systems of conservation areas. The scope will be tropical and temperate coastal, marine, and freshwater ecosystems areas at risk; and
- (b) **Sustainable use**<sup>14</sup> can be ensured by systems which combine biodiversity conservation, production, and socio-economic goals. The scope, as set out in the Operational Strategy, includes strict protection on reserves, various forms of multiple use with conservation easements, and full scale use.

2.9 The key assumptions are as follows:

- (a) **Scope.** Conservation and sustainable use will be achieved in a *variety* of specific ecosystems that are identified as priorities within national biodiversity strategic plans and programs; and
- (b) **Replication.** These successful outcomes will be *replicated* elsewhere on the basis of the experience and learning gained.

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<sup>12</sup> Idem, Decision III/9, paras 2, 3, and 4.

<sup>13</sup> GEF Operational Strategy, Chapter 2, pages 17-18.

<sup>14</sup> Idem, pages: 18-19.

2.10 As indicated in the Operational Strategy<sup>15</sup>, this Operational Program will be implemented in conjunction with those in the International Waters focal area. For coastal and marine ecosystems, the approach will be implemented in large marine ecosystems based on biogeographic provinces and other relevant scales. For in-situ conservation of areas of global importance there is a large body of work in identifying particular coastal/marine and wetland areas that should be conserved to represent major habitat types and their species<sup>16</sup>. National priorities are often expressed in the National Biodiversity Strategies and Action Plans, and in national plans such as UNCED reports, Tropical Forestry Action Plans, National Environment Action Plans, etc.

## **EXPECTED OUTCOMES**

2.11 A successful outcome is one where globally important biodiversity has been conserved and sustainably used in a specific coastal, marine, or freshwater ecosystem.

### **Monitoring outcomes**

2.12 Outcomes would be monitored and evaluated by measuring key indicators of ecosystem structure and function, and of sustainable use. Examples of monitoring and evaluation methodologies and tools include:

- (a) measures of the population of native species, showing these to be high enough to be viable in-situ;
- (b) measures of the population of key alien, invasive species;
- (c) ecological surveys within protected areas, showing the presence and abundance of indicator or keystone species;
- (d) measures of the quality of the processes (e.g. water quality, nutrient cycling, etc.) that maintain the integrity of the ecosystems; and

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<sup>15</sup> Chapter 2, Biodiversity, page 16.

<sup>16</sup> Examples of key source materials identifying specific sites at the global level: "A Global Representative System of Marine Protected Areas" prepared jointly by the Great Barrier Reef Authority, the World Bank, and IUCN; Global Marine Biological Diversity (Norse, 1993); the International Coral Reef Initiative (ICRI); international (e.g., Ramsar and World Heritage) and regional (e.g. Barcelona) conventions which identify global and regional priority sites for conservation of biodiversity and biological resources in coastal, marine, and freshwater systems; Protocols like the Specially Protected Areas and Wildlife (PAW) ; and UNEP's Regional Seas Programme.

- (e) surveys of impacts on the livelihoods and participation of indigenous and local communities and surveys of impacts on biodiversity from these communities.

### **Assumptions and risks to achieving the outcomes**

2.13 A key assumption is that Implementing Agencies, in their regular work programs, will assist countries to analyze the causes<sup>17</sup> of biodiversity loss at the ecosystem level, which could include demographic and economic factors, and to identify and implement national plans that address such root causes. Supplementing this baseline course of action, GEF can assist with additional actions to address driving forces or proximate causes of biodiversity loss and unsustainable use.

2.14 There are some risks to achieving successful outcomes at the ecosystem level through conservation and sustainable use activities and these risks will be addressed through emphasis on good project design. Important risk-reducing steps will need to be confirmed in project proposal documents:

- (a) **Complementarity.** The necessary complementary activities, such as expected policy changes and the availability of bilateral and other sources of finance, will take place;
- (b) **Size.** The protected area is large enough, and the practice of sustainable use of resources in the surrounding productive landscape/seascape is widespread enough, to ensure that the most threatened and endangered components of biodiversity will be protected; and
- (c) **Absorptive capacity.** The absorptive capacity of agencies and NGOs to implement the GEF activity and all the other activities necessary for protecting the ecosystem and use available funds effectively.

### **PROJECT OUTPUTS**

2.15 Outputs of GEF projects and related activities affecting coastal, marine, and freshwater ecosystems would be monitorable. Examples include:

- (a) **Threat removal.** Removal of the causes of biodiversity loss and the specific threats to the ecosystem arising in the surrounding productive

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<sup>17</sup> World Resources Institute, 1992. Global Biodiversity Strategy, pages: 12-18

landscape, e.g., through reduced discharges of domestic, industrial, and agricultural pollution;

- (b) **Sectoral integration.** Well established and well-managed systems of coastal/marine, and freshwater conservation units with effective management plans; integrated land-use and sea-use which includes conservation units as part of the regional landscape/seascape; and integrated community development addressing livelihood issues of local and indigenous communities living in the buffer zone and areas of influence of conservation units;
- (c) **Sustainable use.** Sustainable coastal, marine and freshwater management techniques in place; and
- (d) **Institutional strengthening.** Stronger institutions and well-trained staff to address these issues.

## **GEF ACTIVITIES**

2.16 The GEF can support<sup>18</sup> investment, technical assistance, capacity building (institutional strengthening, human resource development, and information exchange, including participation in the Clearing-house Mechanism), policy, public education, and targeted research. Through these means, GEF will help to finance the conservation of biodiversity and sustainable use.

2.17 Typical conservation activities are:

- (a) demarcating, gazetting, strengthening, expanding and consolidating systems of conservation areas, particularly in critical habitats or representative systems of coastal, marine and freshwater conservation areas;
- (b) assessing the impact of natural disturbances and the compound effect of anthropogenic stress;
- (c) remedial actions in areas under threat;
- (d) control of alien, invasive species;
- (e) capacity building for biosafety activities formulated on a case-by-case basis in the context of a specific project responding to country-driven national priorities;

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<sup>18</sup> GEF Operational Strategy, Chapter 2, Biodiversity, pages: 17-21.

- (f) identifying components of biological diversity important for its conservation with regard to the indicative list of Annex I of the CBD;
- (g) identifying processes and categories of activities which have or are likely to have significant adverse impacts on the conservation and sustainable use of biodiversity;
- (h) piloting selected activities that are country-driven national priorities and which develop and/or test methods and tools, such as rapid biological/ecological/social assessment, geographic information systems, and data analysis systems of importance for the conservation of biodiversity;
- (i) demonstrating and applying techniques to conserve biodiversity importance to agriculture, such as wild relatives of domesticated plants and animals;
- (j) supporting capacity building efforts that promote the preservation and maintenance of indigenous and local communities' knowledge, innovation, and practices relevant to conservation of biological diversity, with their prior informed consent and participation;
- (k) incorporating components for targeted research important for biological diversity conservation when relevant to project objectives and consistent with national priorities; and
- (l) including sustainable use awareness components when relevant to project objectives and consistent with national priorities.

2.18 To maintain biodiversity and the diversity of biological resources, GEF sustainable use activities will be supported in coastal, marine, and freshwater ecosystems. Sustainable development activities that integrate biodiversity and biological resource concerns are central to and a necessary foundation for national sustainable development goals. Typical GEF sustainable development activities would be in areas surrounding critical habitats that require integration of biodiversity protection and sustainable development in sectoral plans. In addition, consistent with the incremental cost approach, GEF could pay for activities that could be modified specifically to protect biodiversity. Typical examples are:

- (a) assessing the impact of natural disturbances and the compound effect of anthropogenic stress;
- (b) remedial actions in areas under threat;

- (c) control of alien, invasive species;
- (d) capacity building for biosafety activities formulated on a case-by-case basis in the context of a specific project responding to country-driven national priorities;
- (e) identifying components of biological diversity important for its sustainable use with regard to the indicative list of Annex I of the CBD;
- (f) identifying processes and categories of activities which have or are likely to have significant adverse impacts on the sustainable use of biodiversity;
- (g) piloting selected activities that are country-driven national priorities and which develop and/or test methods and tools, such as rapid biological/ecological/social assessment, geographic information and data analysis systems of importance for the sustainable use of biodiversity;
- (h) supporting capacity building efforts that promote the preservation and maintenance of indigenous and local communities' knowledge, innovation, and practices relevant to sustainable use of biological diversity, with their prior informed consent and participation;
- (i) incorporating components for targeted research important for the sustainable use of biological diversity when relevant to project objectives and consistent with national priorities; and
- (j) including sustainable use awareness components when relevant to project objectives and consistent with national priorities.

Typical examples of activities that could be modified specifically to sustainably manage biodiversity:

- (a) integrating biodiversity conservation and sustainable use objectives in water and land use, and natural resource use management plans;
- (b) integrated pilot projects providing alternative livelihoods to local and indigenous communities residing in buffer zones of globally important biological areas;
- (c) tenure reform and land titling in the buffer zones -- in the coastal zone, marine environment, and freshwater systems around globally important protected areas;

- (d) reduction in habitat fragmentation, encroachment, and pollution; and
- (e) establishment of long-term cost recovery mechanisms and financial incentives for sustainable use.

### **Project risks**

2.19 Project proposals would also address the main risks to being able to reach the desired outputs by:

- (a) Best practice. Using and adapting best practice for GEF activities, and best available knowledge to establish the necessary baseline and indicators to monitor impacts; and
- (b) Local communities. Ensuring that local communities accept and respect the boundaries of conservation units and the limits imposed on biological resource extraction; scaling up and expanding successful community development activities; encouraging the active participation of local communities, NGOs, and other key stakeholders; and incorporating the knowledge of local and indigenous communities.

### **Inter-Agency coordination**

2.20 The activities would be coordinated with the past, ongoing, and prospective work of the Implementing Agencies and others. These will include experience gained, lessons learned, and dissemination of experience from the Pilot Phase activities, and the experience of multilateral, bilateral and private institutions, the international and national NGO community, and international, regional, and national research centers and academic institutions.

### **Land degradation**

2.21 Coastal, marine, and freshwater ecosystems suffer the impact, directly or indirectly, of land degradation. The GEF will support activities that demonstrate how to control land degradation effects on these ecosystems. Special pilot efforts will assist Island States to conserve and rehabilitate/restore (if needed) key ecosystems for threatened/endangered plant and animal species.

### **PUBLIC INVOLVEMENT**

2.22 It is one of ten basic operational principles for the GEF that its projects will provide for consultation with, and participation as appropriate of, the beneficiaries and affected groups of people. The GEF Council approved a paper on *Public Involvement in GEF-financed Projects* that defines the procedures for information dissemination, consultation, and stakeholder participation, including the following:

- (a) that there should be emphasis on local participation and local stakeholders; and
- (b) that specific conditions in-country should be taken into consideration.

2.23 These principles respond to the guidance of the CoP.<sup>19</sup> Strategic partnerships will be sought, where possible, among all relevant stakeholders (e.g., government, NGOs, academia, the private sector, local communities and indigenous groups), each group collaborating based on comparative advantage. Projects to implement the Operational Program will clarify the conditions of cooperation and contain transparent mechanisms to ensure the active participation of relevant stakeholders in the planning, implementation, and monitoring of project activities. Partnerships will be appropriate to local conditions and build on local expertise.

## **RESOURCES**

2.24 GEF resources will be used to meet the incremental costs of activities in this Operational Program. It is estimated that this program will require financial resources of approximately \$160-190 million over three years, with the rate of disbursement rising as experience is gained.

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<sup>19</sup> Decision II/6, para 10, page 22 and Idem, Decision III/5.

## **OPERATIONAL PROGRAM NUMBER 3 FOREST ECOSYSTEMS**

### **GUIDANCE**

3.1 This Operational Program responds to the three sets of guidance provided by the Conference of the Parties (CoP) of the Convention on Biological Diversity (CBD) to the GEF as the institutional structure operating the financial mechanism on an interim basis. The first set of guidance is from the first CoP<sup>1</sup> and includes policy, strategy, and eligibility criteria, as well as program priorities among which are the following related to forested areas:

- (a) Projects that promote the conservation and sustainable use of biological diversity...in other environmentally vulnerable areas...<sup>2</sup>; and
- (b) Projects that promote the conservation and/or sustainable use of endemic species.<sup>3</sup>

3.2 At its second meeting, the CoP approved the second set of guidance,<sup>4</sup> concerning *inter alia* finance for measures for conservation and sustainable use and for in-situ conservation,<sup>5</sup> and preliminary consideration of components of biodiversity under threat.<sup>6</sup>

3.3 The second CoP also considered a number of general issues related to forests and biological diversity<sup>7</sup> and highlighted, among other matters, that forests play a crucial role in maintaining global biodiversity;<sup>8</sup> that tropical, temperate, and boreal forests provide the most diverse sets of habitats for plants, animals, and micro-organisms, holding the vast majority of the world's terrestrial species;<sup>9</sup> that the maintenance of forest ecosystems is crucial for the conservation of biological diversity well beyond their boundaries ... providing ecological services and, at the same time, livelihoods or jobs for hundreds of millions of people worldwide;<sup>10</sup> that forests are

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<sup>1</sup> Document UNEP/CBD/COP/1/17, Policy, Strategy, Programme Priorities and Eligibility Criteria for access to and utilization of financial resources of the Convention on Biological Diversity. Annex 1, pages: 33-34.

<sup>2</sup> Ibid. 4(k).

<sup>3</sup> Ibid. 4(l).

<sup>4</sup> A call to Action: Decisions and ministerial statement from the Second Meeting of the Conference of the Parties to the Convention on Biological Diversity. Jakarta, Indonesia, 6-17 November, 1995.

<sup>5</sup> Ibid. Decision II/6 11, referring to decision II/7 on Articles 6 and 8 of the Convention.

<sup>6</sup> Ibid. Decision II/6 11, referring to decision II/8, para 2.

<sup>7</sup> Ibid. Decision II/9 and its annex.

<sup>8</sup> Ibid. Decision II/9, Annex, para. 3, page 26.

<sup>9</sup> Ibid. Annex, para 4, page 26.

<sup>10</sup> Ibid. Annex, para 5, page 26.

becoming degraded and their biological diversity is being lost;<sup>11</sup> and that forests and forest biological diversity play important economic, social, and cultural roles.<sup>12</sup>

3.4 Although not specifically directed to the GEF, the second CoP also reaffirmed that “the ecosystem approach should be the primary framework of action to be taken under the Convention”<sup>13</sup> and stressed the need “to identify the driving forces determining the status and trends of components of biological diversity.”<sup>14</sup> The ecosystem approach is followed in the Operational Programs and identification of driving forces is stressed in biological diversity.

3.5 At its third meeting, the Conference of the Parties (COP) of the Convention on Biological Diversity (CBD) approved additional guidance for the GEF in its capacity as the institutional structure managing its financial mechanism on an interim basis. The guidance is directly relevant to, and can be fulfilled through Enabling Activities, long-term Operational Programs, and/or Short-term Response Measures. In addition, the operational response to the guidance on agrobiodiversity will be consolidated in an operational policy note on the treatment of agrobiodiversity in the context of the four current Operational Programs in biological diversity.

3.6 The Conference of the Parties:<sup>15</sup>

- (a) urged Implementing Agencies to enhance cooperation to increase efforts to improve processing and delivery systems;
- (b) asked GEF to “...provide financial resources to developing countries for country-driven activities and programmes, consistent with national priorities and objectives...”<sup>16</sup> on the following topics: capacity building in biosafety, including for the implementation by developing countries of the UNEP International Technical Guidelines on Safety in Biotechnology; capacity building for initial assessment and monitoring programs, including taxonomy; supporting efforts for the conservation and sustainable use of biological diversity important to agriculture; and for capacity building and country driven pilot projects on the Clearing-house Mechanism (CHM);
- (c) reconfirmed the importance and requested support for incentive measures;

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<sup>11</sup> Ibid. Annex, para 7, page 27.

<sup>12</sup> Ibid. Annex, para 8, page 27.

<sup>13</sup> Ibid. Decision II/8, para 1.

<sup>14</sup> Ibid. Decision II/8, para 3.

<sup>15</sup> UNEP/CBD/COP/3/38, annex II, Decision III/5.

<sup>16</sup> Idem, para 2.

- (d) urged capacity building efforts to implement measures and guidance on access to genetic resources;
- (e) requested GEF to examine the support of capacity building for indigenous and local communities embodying traditional lifestyles;
- (f) requested GEF to incorporate targeted research and promotion of awareness activities when relevant to project objectives and consistent with national priorities; and
- (g) requested GEF to collaborate with the CBD Secretariat in preparing a proposal on the means to address the fair and equitable sharing of the benefits arising out of genetic resources, including assistance to developing country Parties.

3.7 The Conference of the Parties<sup>17</sup> requested GEF to make financial resources available to developing country Parties for urgent implementation of relevant aspects of Articles 6 and 8, which concern general measures for conservation and sustainable use and for in-situ conservation.

3.8 The present Operational Program responds to the above decisions.

#### **PROGRAM OBJECTIVE**

3.9 The objective of this Operational Program is the conservation and sustainable use of the biological resources in forest ecosystems.

- (a) **Conservation**<sup>18</sup> or in-situ protection, will be sought through protection of primary/old growth and ecologically mature secondary forest ecosystems, by establishing and strengthening systems of conservation areas, focusing primarily on tropical and temperate ecosystems in areas at risk; and
- (b) **Sustainable use**<sup>19</sup> forest management will be sought by combining production, socio-economic, and biodiversity goals. The Operational Strategy calls for a range of uses from strict protection on reserves through various forms of multiple use with conservation easements to full scale use.

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<sup>17</sup> Idem, Decision III/9, paras 2, 3, and 4.

<sup>18</sup> GEF Operational Strategy, Chapter 2, pages 17-18.

<sup>19</sup> Idem, pages: 18-19.

3.10 The key assumptions are as follows:

- (a) **Scope.** Conservation and sustainable use will be achieved in a variety of specific ecosystems that are identified as priorities within National Biodiversity Strategies or other national plans such as UNCED reports, Tropical Forestry Action Plans, National Environmental Action Plans, etc. Those identified as priorities are likely to be areas of high endemism; of high ecosystem, species, and genome diversity; of high distinctiveness; important for migratory species; important as spawning and nursery grounds; under threat; of high social, economic, cultural, or scientific value; of high productivity; or of a structure and composition shaped largely by natural events and only to a limited extent by human disturbance. For in-situ conservation of areas of importance there is also a large body of work identifying forested areas that should be conserved to represent major habitat types and their species<sup>20</sup>; and
- (b) **Replication.** Successful outcomes will be replicated elsewhere on the basis of the experience and learning gained.

### **EXPECTED OUTCOMES**

3.11 A successful outcome is one where globally important biodiversity has been conserved or sustainably used in a specific forest ecosystem.

### **Monitoring outcomes**

3.12 Outcomes would be monitored and evaluated by measuring key indicators of ecosystem structure and function, and of sustainable use. Examples of monitoring and evaluation methodologies and tools include:

- (a) surveys of forest cover, including measures of the age and species on managed stands; other measures of the population of native species, showing these to be high enough to be viable in-situ; and

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<sup>20</sup> Examples of key publications for identifying specific sites at the regional level are: in the Latin America and Caribbean region, the BSP regional analysis and the WWF/World Bank eco-regions work; in Africa, the World Bank's ecological sensitive areas and IUCN's Conservation Atlas of Tropical Forests; and in Asia, IUCN's review of protected areas systems in the Indo-Malayan region and the Conservation Atlas of Tropical Forests. International (e.g., Ramsar and World Heritage) and regional (e.g., Western Hemisphere, Barcelona, etc.) conventions include the identification of global and regional priority sites for conservation of biodiversity and biological resources.

- (b) measures of the population of key alien, invasive species;
- (c) surveys of organisms or surveys of their parts extracted (e.g., leaves, roots, nuts, seeds, gums, resins, skins, internal organs, etc.,
- (d) ecological surveys within protected forest areas, showing the presence and abundance of indicator or keystone species; and
- (e) measures of the quality of the processes (e.g. water quality, nutrient cycling, etc.) that maintain the integrity of the ecosystems.

### **Assumptions and risks to achieving the outcomes**

3.13 A key assumption is that Implementing Agencies, in their regular work programs, will assist countries to analyze the causes<sup>21</sup> of biodiversity loss at the ecosystem level, which could include demographic and economic factors, and to identify and implement national plans that address such root causes. Supplementing this baseline course of action, GEF can assist with additional actions to address driving forces or proximate causes of biodiversity loss and unsustainable use.

3.14 There are some risks to achieving successful outcomes at the ecosystem level through conservation and sustainable use activities and these risks will be addressed through emphasis on good project design. The following important risk-reducing steps will need to be confirmed in project proposal documents:

- (a) **Complementarity.** The necessary complementary activities, such as expected policy changes and the availability of bilateral and other sources of finance, will take place;
- (b) **Size and corridors.** The protected forest area and the necessary connecting corridors are large enough, and the practice of sustainable use of resources in the surrounding productive landscape is widespread enough, to ensure that the most threatened and endangered components of forest biodiversity will be protected; and
- (c) **Absorptive capacity.** The absorptive capacity of agencies and NGOs to implement the GEF activity and all the other activities necessary for protecting the ecosystem and use available funds effectively.

### **PROJECT OUTPUTS**

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<sup>21</sup> World Resources Institute, 1992. Global Biodiversity Strategy, pages: 12-18.

3.15 Outputs of GEF projects and related forest ecosystems activities would be monitorable. Examples include:

- (a) **Protected areas.** Well established systems of forest conservation units with effective management plans;
- (b) **Threat removal.** Removal of the causes of biodiversity loss and the specific threats to the ecosystem arising in the surrounding productive landscape, e.g., through reduced encroachment;
- (c) **Sectoral integration.** Incorporation of biodiversity protection into the main productive sectors of the economy; and integrated community development addressing livelihood issues of local and indigenous communities living in the buffer zone and areas of influence of protected areas;
- (d) **Sustainable use.** Sustainable logging and other forest industries; and
- (e) **Institutional strengthening.** Stronger institutions and well-trained staff to address these issues.

## GEF ACTIVITIES

3.16 GEF can support<sup>22</sup> investment, technical assistance, capacity building (institutional strengthening, human resource development, and information exchange, including participation in the Clearing-house Mechanism), policy, public education, and targeted research. Through these means, GEF will help to finance the conservation of biodiversity and sustainable use.<sup>23</sup>

3.17 Typical conservation activities are:

- (a) demarcating, gazetting, strengthening, expanding, and consolidating protected forest areas, and maintaining forest corridors within the main productive landscapes, particularly in areas that are critical habitats or of importance for migratory species;
- (b) assessing the impact of natural disturbances and the compound effects of anthropogenic stress;
- (c) remedial actions in forest under threat;
- (d) control of alien, invasive species;
- (e) capacity building for biosafety activities formulated on a case-by-case basis in the context of a specific project responding to country-driven national priorities;
- (f) identifying components of biological diversity important for its conservation with regard to the indicative list of Annex I of the CBD;
- (g) identifying processes and categories of activities which have or are likely to have significant adverse impacts on the conservation of biodiversity;
- (h) piloting selected activities that are country-driven national priorities and which develop and/or test methods and tools, such as rapid biological/ecological/social assessment, geographic information systems, and data analysis systems of importance for the conservation of biodiversity;
- (i) demonstrating and applying techniques to conserve biodiversity important to agriculture, such as wild relatives of domesticated plants and animals;

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<sup>22</sup> GEF Operational Strategy, Chapter 2, Biodiversity, pages: 17-21.

<sup>23</sup> GEF Operational Strategy, Chapter 2, Biodiversity, pages 16-17 under forest ecosystems.

- (j) supporting capacity building efforts that promote the preservation and maintenance of indigenous and local communities' knowledge, innovation, and practices relevant to conservation of biological diversity, with their prior informed consent and participation;
- (k) incorporating components for targeted research important for biological diversity conservation, when relevant to project objectives and consistent with national priorities; and
- (l) including sustainable use awareness components when relevant to project objectives and consistent with national priorities.

3.18 To maintain biodiversity and the diversity of biological resources, GEF sustainable use activities will be supported in forest ecosystems. Sustainable development activities that integrate biodiversity and biological resource concerns are central to and a necessary foundation for national sustainable development goals. Typical GEF sustainable development activities would be in areas surrounding critical habitats that require integration of biodiversity protection and sustainable development in sectoral plans. In addition, consistent with the incremental cost approach, GEF could pay for activities that could be modified specifically to protect biodiversity. Typical examples are:

- (a) integration of biodiversity conservation and sustainable use objectives in land use and natural resource use management plans;
- (b) integrated pilot projects providing alternative livelihoods to local and indigenous communities residing in buffer zones of globally important biological areas;
- (c) integrated conservation and development projects around protected forests;
- (d) participatory management of natural resources, and alternative livelihoods;
- (e) tenure reform and land titling in the buffer zones around important protected forests;
- (f) sustainable production and use of natural products (e.g., sustainable forest management practices);
- (g) improvement in rural and community wood-lots specifically to remove pressure on fuelwood obtained from protected forests; adjusting sustainable logging regimes to protect natural habitats of global

significance; intensification of agricultural productivity in surrounding areas to minimize encroachment on marginal forested areas of high biodiversity value;

- (h) establishment of long-term cost recovery mechanisms and financial incentives for sustainable use;
- (i) capacity building for biosafety activities formulated on a case-by-case basis in the context of a specific project responding to country-driven national priorities;
- (j) identifying components of biological diversity important for its sustainable use with regard to the indicative list of Annex I of the CBD;
- (k) identifying processes and categories of activities which have or are likely to have significant adverse impacts on the sustainable use of biodiversity;
- (l) piloting selected activities that are country-driven national priorities and which develop and/or test methods and tools, such as rapid biological/ecological/social assessment, geographic information systems, and data analysis systems of importance for the sustainable use of biodiversity;
- (m) demonstrating and applying techniques to sustainably manage biodiversity important to agriculture, such as wild relatives of domesticated plants and animals;
- (n) supporting capacity building efforts that promote the preservation and maintenance of indigenous and local communities' knowledge, innovation, and practices relevant to conservation of biological diversity, with their prior informed consent and participation;
- (o) incorporating components for targeted research important for biological diversity conservation when relevant to project objectives and consistent with national priorities; and
- (p) including sustainable use awareness components when relevant to project objectives and consistent with national priorities.

### **Project risks**

3.19 Project proposals would also address the main risks to being able to reach the desired outputs by:

- (a) **Best practice.** Using and adapting best practice for GEF activities, and best available knowledge to establish the necessary baseline and indicators to monitor impacts; and
- (b) **Local communities.** Ensuring that local communities accept and respect the boundaries of protected forests and the limits imposed on biological resource extraction; scaling up and expanding successful community development activities; encouraging the active participation of local communities, NGOs, and other key stakeholders; and incorporating the knowledge of local and indigenous communities.

### **Inter-Agency Coordination**

3.20 The activities would be coordinated with the past, ongoing, and prospective work of the Implementing Agencies and others. These will include experience gained, lessons learned, and dissemination of experience from the Pilot Phase activities, and the experience of multilateral, bilateral, and private institutions, the international and national NGO community, and international, regional, and national research centers and academic institutions.

### **Land Degradation**

3.21 Global and nationally significant forested lands have and are suffering substantive land degradation in the form of deforestation and desertification. The GEF will fund pilot activities that prevent deforestation and promote sustainable use and sustainable management of forests and forested areas at risk in order to conserve their biodiversity.<sup>24</sup> Pilot rehabilitation and restoration activities will be supported on tropical and temperate forest ecosystems in areas at risk (e.g. with threatened and/or endangered species and ecosystems).<sup>25</sup>

### **PUBLIC INVOLVEMENT**

3.22 It is one of ten basic operational principles for the GEF that its projects will provide for consultation with, and participation as appropriate of, the beneficiaries and affected groups of people. The GEF Council approved a paper on *Public Involvement in GEF-financed Projects* that defines the procedures for information dissemination, consultation, and stakeholder participation, including the following:

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<sup>24</sup> GEF Operational Strategy, Chapter 2, Biodiversity, page 11.

<sup>25</sup> Idem, page: 16 under Forest Ecosystems.

- (a) that there should be emphasis on local participation and local stakeholders; and
- (b) that specific conditions in-country should be taken into consideration.

3.23 These principles respond to the guidance of the CoP.<sup>26</sup> Strategic partnerships will be sought, where possible, among all relevant stakeholders (e.g., government, NGOs, academia, the private sector, local communities, and indigenous groups), each group collaborating based on comparative advantage. Projects to implement the Operational Program will clarify the conditions of cooperation and transparent mechanisms to ensure the active participation of relevant stakeholders in the planning, implementation and monitoring of project activities. Partnerships will be appropriate to local conditions and build on local expertise.

## **RESOURCES**

3.24 GEF resources will be used to meet the incremental costs of activities in this Operational Program. The financial resources required over the period of the first three years are estimated to be between US \$ 160 and 185 million. This includes resources for unforeseen short-term-responses that offer quick and cost-effective measures.

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<sup>26</sup> Decision II/6, para 10, page 22 and Idem, Decision III/5.

## **OPERATIONAL PROGRAM NUMBER 4**

### **MOUNTAIN ECOSYSTEMS**

4.1 Mountain ecosystems are among the world's most vulnerable biogeographical domain. From the Andes to the Himalayas, mountain ecosystems are very distinct from lowlands, being particularly fragile and highly susceptible to erosion, landslides, avalanches, lava flows, earthquakes, torrents, and rock falls; having variable climates with slow recovery of flora, fauna or soil; encompassing heterogeneous habitats resulting from altitudinal, climatic variations; often remaining the last bastion of wild nature and vertical ecological islands in a sea of transmuted lowlands with high human density; and being generally remote with rapid loss of indigenous culture, traditions, knowledge, and livelihoods. Yet, they are of unique global significance as biodiversity "hot spots," water reservoirs (for as much as 80 per cent of humanity's fresh water needs), and outstanding natural heritage sites, where biodiversity is linked to cultural patrimony of the mountain people. The main threats arise from deforestation, illegal logging, poaching of wild plants and animals, and destruction of habitat by fire regimes; unsustainable grazing and agricultural encroachments; impacts of poorly conceived infrastructure projects, tourism, quarrying and mining; and fuel-wood gathering.

#### **GUIDANCE**

4.2 This Operational Program responds to the three sets of guidance provided by the Conference of the Parties (CoP) of the Convention on Biological Diversity (CBD) to the GEF as the institutional structure operating the financial mechanism on an interim basis. The first set of guidance is from the first CoP<sup>1</sup> and includes policy, strategy, and eligibility criteria, as well as program priorities among which are the following related to mountain areas:

- (a) Projects that promote the conservation and sustainable use of biological diversity ... in other environmentally vulnerable areas such as ... mountainous areas <sup>2</sup>; and
- (b) Projects that promote the conservation and/or sustainable use of endemic species.<sup>3</sup>

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<sup>1</sup> Document UNEP/CBD/COP/1/17, Policy, Strategy, Programme Priorities and Eligibility Criteria for access to and utilization of financial resources of the Convention on Biological Diversity. Annex 1, pages: 33-34.

<sup>2</sup> Ibid. 4(k).

<sup>3</sup> Ibid. 4(l).

4.3 At its second meeting, the CoP approved the second set of guidance,<sup>4</sup> concerning *inter alia* finance for measures for conservation and sustainable use and for in-situ conservation,<sup>5</sup> and preliminary consideration of components of biodiversity under threat.<sup>6</sup>

4.4 Although not specifically directed to the GEF, the second CoP also reaffirmed that “the ecosystem approach should be the primary framework of action to be taken under the Convention”<sup>7</sup> and stressed the need “to identify the driving forces determining the status and trends of components of biological diversity.”<sup>8</sup> The ecosystem approach is followed in the Operational Programs and identification of driving forces is stressed.

4.5 At its third meeting, the Conference of the Parties (COP) of the Convention on Biological Diversity (CBD) approved additional guidance for the GEF in its capacity as the institutional structure managing its financial mechanism on an interim basis. The guidance is directly relevant to, and can be fulfilled through Enabling Activities, long-term Operational Programs, and/or Short-term Response Measures. In addition, the operational response to the guidance on agrobiodiversity will be consolidated in an operational policy note on the treatment of agrobiodiversity in the context of the four current Operational Programs in biological diversity.

4.6 The Conference of the Parties:<sup>9</sup>

- (a) urged Implementing Agencies to enhance cooperation to increase efforts to improve processing and delivery systems;
- (b) asked GEF to “...provide financial resources to developing countries for country-driven activities and programmes, consistent with national priorities and objectives...”<sup>10</sup> on the following topics: capacity building in biosafety, including for the implementation by developing countries of the UNEP International Technical Guidelines on Safety in Biotechnology; capacity building for initial assessment and monitoring programs, including taxonomy; supporting efforts for the conservation and sustainable use of biological diversity important to agriculture; and for capacity building and country driven pilot projects on the Clearing-house Mechanism (CHM);

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<sup>4</sup> A Call to Action: Decisions and ministerial statement from the Second Meeting of the Conference of the Parties to the Convention on Biological Diversity. Jakarta, Indonesia, 6-17 November, 1995.

<sup>5</sup> Ibid. Decision II/6 11, referring to decision II/7 on Articles 6 and 8 of the Convention.

<sup>6</sup> Ibid. Decision II/6 11, referring to decision II/8, para 2.

<sup>7</sup> Ibid. Decision II/8 para 1.

<sup>8</sup> Ibid. Decision II/8, para 3.

<sup>9</sup> UNEP/CBD/COP/3/38, annex II, Decision III/5.

<sup>10</sup> Idem, para 2.

- (c) reconfirmed the importance and requested support for incentive measures;
- (d) urged capacity building efforts to implement measures and guidance on access to genetic resources;
- (e) requested GEF to examine the support of capacity building for indigenous and local communities embodying traditional lifestyles;
- (f) requested GEF to incorporate targeted research and promotion of awareness activities when relevant to project objectives and consistent with national priorities; and
- (g) requested GEF to collaborate with the CBD Secretariat in preparing a proposal on the means to address the fair and equitable sharing of the benefits arising out of genetic resources including assistance to developing country Parties.

4.7 The Conference of the Parties<sup>11</sup> requested GEF to make financial resources available to developing country Parties for urgent implementation of relevant aspects of Articles 6 and 8 which concern general measures for conservation and sustainable use and for in-situ conservation.

4.8 The present Operational Program responds to the above decisions.

#### **PROGRAM OBJECTIVE**

4.9 The objective of this Operational Program is the conservation and sustainable use of the biological resources in mountain ecosystems.

- (a) **Conservation**<sup>12</sup>, or in-situ protection of biodiversity, will be sought through protection of systems of conservation areas, focusing on the Mesoamerican, Andean, East African, Himalayan regions (including Hindu-Kush - Karakoram - Pamir - Tien Shan range) and montane regions of the Indochina peninsula as well as mountain chains on tropical islands; and
- (b) **Sustainable use**<sup>13</sup> management will be sought by wise use of mountain ecosystems combining productive, socio-economic, and conservation

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<sup>11</sup> Idem, Decision III/9, paras 2, 3, and 4.

<sup>12</sup> GEF Operational Strategy, Chapter 2, pages 17-18.

<sup>13</sup> Idem, pages: 18-19.

goals. The Operational Strategy calls for a range of uses from strict protection on reserves through various forms of multiple use with conservation easements to full scale use.

4.10 The key assumptions are as follows:

- (a) **Scope.** Conservation and sustainable use will be achieved in specific mountain ecosystems that are identified as priorities within National Biodiversity Strategies or other national plans such as UNCED reports, National Environmental Action Plans, etc. It is assumed that protecting a number of mountain ecosystems that are national priorities will, overall, result in a sufficiently representative coverage of habitat types to fulfill the objective of the Operational Program; and
- (b) **Replication.** Successful outcomes will be replicated elsewhere on the basis of the experience and learning gained. While several issues and problems causing the loss of species, ecosystems, and genetic diversity are site specific, many characteristics are common to the mountain ecosystem whether in the Andes in South America, the Caucasus in Europe, the Ruwenzori in Africa, or the Himalayas in Asia. Many mitigative measures can be replicated, particularly those that seeks to balance human needs with biodiversity conservation and sound watershed management.

## **EXPECTED OUTCOMES**

4.11 A successful outcome is one where globally important biodiversity has been conserved or sustainably used in a specific mountain ecosystem.

### **Monitoring outcomes**

4.12 Outcomes would be monitored and evaluated by measuring key indicators of mountain ecosystem structure and function, and of sustainable use. Examples of monitoring and evaluation methodologies and tools include:

- (a) surveys of mountain vegetation cover and composition; measures of the plant vigor, age, diversity, species density, and age class; other measures of the population of native species, showing these to be high enough to be viable *in situ*;

- (b) indicators of ambient threats such as soil erosion or landslides, showing these to be below critical thresholds;
- (c) measures of the population of key alien, invasive species; and
- (d) ecological surveys within protected mountain areas, showing the maintenance of species diversity and endemism and the presence and abundance of indicator or keystone species.

### **Assumptions and risks to achieving the outcomes**

4.13 A key assumption is that Implementing Agencies, in their regular work programs, will assist countries to analyze the causes<sup>14</sup> of biodiversity loss at the ecosystem level, which could include demographic and economic factors, and to identify and implement national plans that address such root causes. Supplementing this baseline course of action, GEF can assist with additional actions to address driving forces or proximate causes of biodiversity loss and unsustainable use.

4.14 There are some risks to achieving successful outcomes at the ecosystem level through conservation and sustainable use activities and these risks will be addressed through emphasis on good project design. The following important risk-reducing steps will need to be confirmed in project proposal documents:

- (a) **Complementarity.** The necessary complementary activities, such as expected policy changes and the availability of bilateral and other sources of finance, will take place;
- (b) **Size and linkage.** Large protected areas which are less isolated from other natural areas are expected to be richer in terms of species and more stable in terms of retaining the species they contain. Any protected mountain area should be large enough, and the practice of sustainable use of resources in the surrounding productive landscape should be widespread enough, to ensure that the most threatened and endangered components of biodiversity will be protected. Conservation corridors that link mountain areas may be needed as a means for gene flow and species migration -- especially for wide-ranging wildlife -- and as a hedge against climate change. This may involve large parts, or even entire mountain ranges, and the trans-border management of protected areas and watersheds; and

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<sup>14</sup> World Resources Institute, 1992. Global Biodiversity Strategy, pages: 12-18

- (c) **Absorptive capacity.** The absorptive capacity of agencies and NGOs to implement the GEF activity and all the other activities necessary for protecting the ecosystem and use available funds effectively.

## **PROJECT OUTPUTS**

4.15 Outputs of individual GEF activities in mountain ecosystems would be monitorable. Examples of outputs include:

- (a) **Protected areas.** Well established protected areas with effective management plans, including multiple use areas in the alpine, sub-alpine, mountain grassland, and montane forest zones;
- (b) **Threat removal.** Removal of the specific causes of, or threats to, biodiversity loss in the mountain, e.g., tourism impacts and deforestation;
- (c) **Sectoral integration.** Incorporation of biodiversity protection into the main productive sectors of the economy; and integrated community development addressing livelihood issues of local and indigenous communities living in the buffer zone and areas of influence of protected areas;
- (d) **Sustainable use.** Sustainable subsistence and land use practices; and
- (e) **Institutional strengthening.** Stronger institutions and well-trained staff to address these issues.

## **GEF ACTIVITIES**

4.16 The GEF can support<sup>15</sup> investment, technical assistance, capacity building (institutional strengthening, human resource development, and information exchange, including participation in the Clearing-house Mechanism), policy, public education, and targeted research. Through these means, GEF will help to finance the conservation of biodiversity and sustainable use.

4.17 *In situ* conservation is important because mountain ecosystems are a storehouse of diverse, endemic, and endangered biological diversity of global significance. Typical conservation activities are:

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<sup>15</sup> GEF Operational Strategy, Chapter 2, Biodiversity, pages: 17-21

- (a) demarcating, gazetting, strengthening, expanding, and consolidating protected mountain areas and their buffer zones; creating and strengthening participatory and co-management schemes to build local support and ownership; promoting trans-border protected areas and their cooperative management;
- (b) developing socio-economic activities to reconcile biodiversity conservation with human needs;
- (c) assessing the impact of natural disturbances and the compound effects of anthropogenic stress;
- (d) linking *in situ* conservation of wild species and genetic material with agrobiodiversity;
- (e) controlling alien, invasive species;
- (f) strengthening capacity building for biosafety activities formulated on a case-by-case basis in the context of a specific project responding to country-driven national priorities;
- (g) identifying components of biological diversity important for its conservation with regard to the indicative list of Annex I of the CBD;
- (h) identifying processes and categories of activities which have or are likely to have significant adverse impacts on the conservation and sustainable use of biodiversity;
- (i) piloting selected activities that are country-driven national priorities and which develop and/or test methods and tools, such as rapid biological/ecological/social assessment, geographic information systems, and data analysis systems of importance for the conservation of biodiversity;
- (j) demonstrating and applying techniques to conserve biodiversity important to agriculture, such as wild relatives of domesticated plants and animals;
- (k) supporting capacity building efforts that promote the preservation and maintenance of indigenous and local communities' knowledge, innovation, and practices relevant to conservation of biological diversity, with their prior informed consent and participation;

- (l) incorporating components for targeted research important for biological diversity conservation when relevant to project objectives and consistent with national priorities; and
- (m) including sustainable use awareness components when relevant to project objectives and consistent with national priorities.

4.18 To maintain biodiversity and the diversity on biological resources, GEF sustainable use activities will be supported in mountain ecosystems. Sustainable development activities that integrate biodiversity and biological resource concerns are central to and a necessary foundation for national sustainable development goals. Typical GEF sustainable development activities would be in areas surrounding critical habitats that require integration of biodiversity protection and sustainable development in sectoral plans through integrated resource management projects. In addition, consistent with the incremental cost approach, GEF could pay for activities that could be modified specifically to protect biodiversity. Typical examples of the first approach are:

- (a) integration of biodiversity conservation and sustainable use objectives in land use and natural resource use management plans;
- (b) integrated pilot projects providing alternative livelihoods to local and indigenous communities residing in buffer zones of globally important biological areas;
- (c) capacity building for biosafety activities formulated on a case-by-case basis in the context of a specific project responding to country-driven national priorities;
- (d) identifying components of biological diversity important for its sustainable use, with regard to the indicative list of Annex I of the CBD;
- (e) identifying processes and categories of activities which have or are likely to have significant adverse impacts on the sustainable use of biodiversity;
- (f) piloting selected activities that are country-driven national priorities and which develop and/or test methods and tools, such as rapid biological/ecological/social assessment, geographic information systems, and data analysis systems of importance for the sustainable use of biodiversity;

- (g) demonstrating and applying techniques to sustainably manage biodiversity important to agriculture, such as wild relatives of domesticated plants and animals;
- (h) supporting capacity building efforts that promote the preservation and maintenance of indigenous and local communities' knowledge, innovation, and practices relevant to the sustainable use of biological diversity with their prior informed consent and participation;
- (i) incorporating components for targeted research important for the sustainable use of biological resources when relevant to project objectives and consistent with national priorities; and
- (j) including sustainable use awareness components when relevant to project objectives and consistent with national priorities.

4.19 Typical examples for activities that could be modified specifically to protect biodiversity:

- (a) integrated land use development and sustainable management, alternative livelihoods and poverty alleviation programs, and tenure reform and land titling (in and around protected mountain areas and their buffer zones and in riparian corridors, river basins, and watersheds that link highland with lowland ecosystems);
- (b) soil conservation and restoration of degraded mountain areas to conserve biodiversity;
- (c) conservation of agro-biodiversity and its linkage to sustainable use practices;
- (d) energy conservation projects and alternative energy sources (such as solar, mini-hydel, and wind) in order to conserve the natural mountain vegetation; and
- (e) establishment of long-term cost recovery mechanisms and financial incentives for sustainable use.

### **Project risks**

4.20 Project proposals would also address the main risks to being able to reach the desired outputs by:

- (a) **Best practice.** Using and adapting best practice for GEF activities, and best available knowledge to establish the necessary baseline and indicators to monitor impacts; and
- (b) **Local communities.** Ensuring that programs are culturally sound, that they fit local customs and gain strength from community dynamics, and that the people recognize and receive benefits; ensuring that local participation in natural resources management from the start; and ensuring that local communities respect the limits on biological resource extraction.

### **Inter-Agency Coordination**

4.21 The activities would be coordinated with the past, ongoing and prospective work of the Implementing Agencies and others. These will include experience gained, lessons learned, and dissemination of experience from the Pilot Phase activities, and the experience of multilateral, bilateral, and private institutions, the international and national NGO community, and international, regional, and national research centers and academic institutions.

4.22 In the Pilot Phase, only 3 out of the 57 biodiversity projects were explicitly for mountain ecosystems<sup>16</sup>. Yet, this experience, and that of other agencies,<sup>17</sup> provides some important lessons for prospective GEF activities. This includes lessons on how to bridge local concerns and priorities with global concerns as expressed in national commitments under the Convention on Biological Diversity, Convention on International Trade in Endangered Species, the Ramsar Convention, the World Heritage Convention, Agenda 21, and the Caracas Action Plan.

### **Land Degradation**

4.23 Because of their fragility, mountain ecosystems have suffered severe land degradation. Projects focusing on the conservation of ecosystems and integrated land use will also naturally alleviate the problems of land degradation, but there will be areas which have been degraded to the extent that they will need rehabilitation and management for sustainability. Components addressing these specific issues will be developed within both types of GEF activity: conservation and sustainable use.

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<sup>16</sup> Source: GEF Annual Report 1995.

<sup>17</sup> Examples: Annapurna Protected area Project and Makalu-Barun National Park and Conservation Project, Nepal.

## **PUBLIC INVOLVEMENT**

4.24 It is one of ten basic operational principles for the GEF that its projects will provide for consultation with, and participation as appropriate of, the beneficiaries and affected groups of people. The GEF Council approved a paper on *Public Involvement in GEF-financed Projects* that defines the procedures for information dissemination, consultation, and stakeholder participation, including the following:

- (a) that there be emphasis on local participation and local stakeholders; and
- (b) that specific conditions in-country should be taken into consideration.

4.25 These principles respond to the guidance of the COP.<sup>18</sup> Strategic partnerships will be sought, where possible, among all relevant stakeholders (e.g., government, NGOs, academia, the private sector, local communities, and indigenous groups), each group collaborating based on comparative advantage. Projects to implement the Operational Program will clarify the conditions of cooperation and contain transparent mechanisms to ensure the active participation of relevant stakeholders in the planning, implementation, and monitoring of project activities. Partnerships will be appropriate to local conditions and build on local expertise.

## **RESOURCES**

4.26 GEF resources will be used to meet the incremental costs of activities in this Operational Program. The financial resources required over the period of the first three years are estimated to range from US \$ 85 - 100 million. These projections take into account the uncertainty of this fragile environment which might call for some short term measures to save certain critical biodiversity.

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<sup>18</sup> Decision II/6, para 12, page 22, and Idem, Decision III/5.