

# Global Environment Facility

GEF/C.12/Inf.10 September 14, 1998

GEF Council October 14 – 16, 1998

# A FRAMEWORK FOR GEF ACTIVITIES CONCERNING CONSERVATION AND SUSTAINABLE USE OF BIOLOGICAL DIVERSITY IMPORTANT TO AGRICULTURE

# **CONTENTS**

I. INTRODUCTION	1
BACKGROUNDCAUSES OF BIODIVERSITY LOSS	1
II. OPERATIONAL ISSUES AND PRINCIPLES	1
GLOBAL ENVIRONMENTAL BENEFITS INCREMENTAL EFFORTS TO CREATE NEW OPPORTUNITIES AND MEET CHALLENGES SUSTAINABILITY PARTNERSHIP	1 1
III. GEF PROGRAMMING	1
OPERATIONAL PROGRAMS The conservation objective The sustainable use objective Monitoring Assumptions and risks Eligible activities	1 1 1 1
Enabling Activities	
SHORT TERM RESPONSE MEASURES	1
Initial Emphasis	1

#### I. INTRODUCTION

#### **BACKGROUND**

- 1. The Third Meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD/CoP/III ) adopted decision III/11 on the conservation and sustainable use of agricultural biological diversity. The decision established a multi-year program of activities aiming at promoting the positive effects and mitigate the negative impacts of agricultural practices on biological diversity in agro-ecosystems and their interface with other ecosystems. The CoP decision III/5 further called on the Global Environment Facility, in accordance with decision III/11, to provide financial resources to developing countries for country driven activities and programs, consistent with national priorities and objectives, for supporting , as a priority, efforts for the conservation and sustainable use of biological diversity important to agriculture.
- 2. Conservation and sustainable use of biodiversity important to agriculture, as called for in decision III/5, is covered by the *GEF Operational Strategy*, and included in GEF Operational Programs, as well as in GEF criteria for the financing of enabling activities. GEF biodiversity operational programs recognize a wide range of biodiversity conservation and use aspects in the overall landscape from full protection in strict reserves through various forms of multiple use with conservation easements -- such as ecotourism or extraction of natural pharmaceuticals -- to full-scale use such as agriculture and forestry.
- 3. To address operational aspects of carrying out CoP guidance on agrobiodiversity COP decision III/11 and COP decision IV/6, the GEF Secretariat is working together with Implementing Agencies, STAP, the CBD Secretariat, and other stakeholders. This note is to provide an operational framework for GEF agrobiodiversity activities. It aims to respond to CoP decisions III/5 and IV/5 within the GEF mandate, which is to operate as a mechanism for the purpose of providing new and additional grant and concessional funding to meet the agreed incremental costs of measures to achieve agreed global environmental benefits.

#### **CAUSES OF BIODIVERSITY LOSS**

- 4. The underlying reasons for the loss of agrobiodiversity are extremely complex. They are closely related to increased food production needs, growing market pressure, conventional patterns and policies of economic and agricultural development, as well as to demographic, economic (including poverty), legal and social trends. Addressing these causes will usually be in the national and regional development interest of the countries concerned and therefore part of regular development programs. GEF support would therefore be to help integrate global environmental concerns into existing sustainable development efforts in the affected regions and countries.
- 5. Unsustainable agricultural practices have caused negative impacts on biological diversity, worldwide, at all levels ecosystems, species and genepools on both natural and domesticated diversity. Reliance on monoculture, over-mechanization, and misuse of agricultural chemicals diminish the diversity of fauna, flora, and micro-organisms, including beneficial organisms. These practices coupled with the lack of in-situ conservation strategies for genetic resources, normally lead to a simplification of the components of the environment and to unsustainable production systems.

6. Expansion of agriculture to frontiers areas, including forest, savanna, wetlands, mountains, and arid lands, combined with over-grazing, and inadequate crop management and pest control strategies contribute to degradation of biological diversity, as well as to the loss of the cultural diversity of traditional communities.

## **AGROBIODIVERSITY OBJECTIVES**

- 7. The CBD multi-year program of activities adopted by decision CoP III/11 on agricultural biological diversity has the following objectives:
- To promote the positive effects and mitigate the negative impacts of agricultural practices on biological diversity in agro-ecosystems and their interface with other ecosystems.
- To promote the conservation and sustainable use of genetic resources of actual or potential value for food and agriculture.
- To promote the fair and equitable sharing of benefits arising out of the utilization of genetic resources; and which, in support of the implementation of ongoing or the initiation of new policies, programs, and plans in the field of agrobiodiversity.

#### II. OPERATIONAL ISSUES AND PRINCIPLES

#### GLOBAL ENVIRONMENTAL BENEFITS

- 8. Agrobiodiversity is of widespread and complex significance to mankind and society, encompassing socio-cultural, economic and environmental benefits. It is essential to food security and poverty alleviation and much of the knowledge about agrobiodiversity is maintained by farmers themselves, many of whom are women. Domesticated crops and animals result from human management of biological diversity, which is constantly responding to new challenges to maintain and increase productivity. Biological diversity itself presents opportunities for enhancing soil fertility, naturally controlling pests and reducing the use of pesticides, while maintaining yields. A large proportion of crops depends on a diverse variety of insect pollinators for good yields. The genetic variability of landraces and wild relatives of domesticated plants and animals are essential breeding sources. Diversified agricultural production offers opportunities to enter new market niches and reduces market risks.
- 9. Taking into account these benefits, conserving and sustainably using biological diversity important to agriculture is clearly in the domestic development interest. The global interest to maintain agrobiodiversity is linked to the fact that most species important to agriculture are, or may be of benefit not to the region of their origin only, but to many, or all regions of the globe. Consequently maintaining agrobiodiversity may provide environmental, economic and socio-cultural benefits on national, regional and a global scale.

## INCREMENTAL EFFORTS TO CREATE NEW OPPORTUNITIES AND MEET CHALLENGES

- 10. In view of these diverse benefits -- which may lead to multiple "win/win" opportunities to use and conserve agrobiodiversity sustainably -- global benefits could be expected to significantly enhance many national and regional sustainable development efforts.
- 11. Nevertheless, despite the work of many international and national organizations and the promise of both domestic and global benefits, current patterns of agricultural land use based on limited numbers of species and varieties have diminished the biological diversity within ecosystems where agriculture is practised and are undermining the long term sustainability of agricultural production itself. Consequently, there is a need for additional country-driven efforts to identify such opportunities for win/win agrobiodiversity use and conservation and to meet any transitional challenges in taking full advantage of them. Such activities are incremental in nature and would incur incremental costs in the agrobiodiversity context. They would build on and rely upon a firm "baseline" of sustainable development activities in the underlying subsistence or commercial agricultural systems, necessitating close coordination and partnership with all stakeholders.
- 12. Countries would need to exert special efforts to identify both these new opportunities and any transitional challenges to:
- creating positive incentives to maintain traditional/indigenous agricultural practices where appropriate;
- providing awareness/access to advise on commercially viable farming systems that help to enhance agrobiodiversity, and practical experience in applying these techniques.

- training personnel and strengthening institutional capacities to promote win/win solutions in agrobiodiversity conservation.
- internalizing the costs of agrobiodiversity loss in economic frameworks;
- advising on appropriate marketing approaches to make markets transparent -- so that consumers are aware of goods produced in biodiversity-conserving farming systems
- providing consumers with information on agrobiodiversity.
- reducing the transaction costs in biodiversity promoting farming systems.
- managing additional risks associated with investments in agrobiodiversity promoting farming practices and addressing the higher perceived risk in such systems
- accessing commercial sources of capital
- creating incentives to lengthen the time horizon for benefits assessment of activities and/or investments that may contribute to the enhancement of agrobiodiversity,
- creating incentives to widen the scope of benefits assessments beyond the subsistence and the economic dimension, to include socio-cultural, ecological and other factors of longer term domestic interest.
- creating incentives to expand the number of beneficiaries beyond those who incur costs, e.g. through regional benefit sharing arrangements.
- Defining access terms to genetic resources for food and agriculture and wild relatives.

# **SUSTAINABILITY**

13. The expected result of any effort to meet such transitional challenges would be sustained agrobiodiversity conservation and/or enhancement without continued external support. Ultimately, after the period of GEF assistance, the agrobiodiversity would be maintained only if commercial or subsistence forces do not erode the gains through economic, social or other pressure. The best strategy is to make use of alternative farming concepts and species that are economic in their own right, such as land race and under-utilized crop oriented organic agriculture. GEF activities would concentrate on efforts to enable sustainable win/win endeavors through one-time catalytic interventions.

## **PARTNERSHIP**

14. There are many institutions like the CGIAR, FAO etc and stakeholders who have experience in the complex issues of agrobiodiversity. Some have specific mandates in this field and many have made major commitments to the protection of biological diversity important to agriculture. For example the FAO Global System for the Conservation and Utilization of Plant Genetic Resources for Food and Agriculture and also the Global Plan of Action. The GEF will work in partnership with these institutions and stakeholders, building on existing strengths and comparative advantages thus avoiding duplication and overlap. Although the GEF does not provide support for international institutions or networks of organizations to carry out their own mandates -- even when these mandates include protection of the global environment -- those institutions and networks may often be well placed to execute specific country driven projects for the GEF. In such partnerships, costs would be shared: the GEF would finance specific incremental project costs while the partner organizations that execute the project would finance their own overheads, out-of-country expenses, and the cost of implementing their regular mandates and workprogram.

#### III. GEF PROGRAMMING

- 15. The GEF framework for activities in the area of agrobiodiversity derives from its overall operational strategy in biodiversity. In accordance with the strategy, all GEF-funded activities in biodiversity will be in full conformity with the guidance provided by the CoP to the CBD. The main strategic considerations guiding GEF financed activities to secure global biodiversity benefits are:
- integrating conservation and sustainable use of biodiversity within national and, as appropriate, subregional sustainable development plans and policies;
- helping to protect and sustainably manage ecosystems through targeted and cost effective interventions;
- integrating efforts to achieve global benefits in other focal areas like climate change and international waters, where feasible, and in the cross-sectoral area of land degradation, primarily desertification and deforestation;
- developing a portfolio that encompasses representative ecosystems of global biodiversity significance; and
- targeting and designing GEF activities to help recipient countries achieve agreed biodiversity objectives in strategic and cost effective ways.
- 16. The GEF Operational Strategy outlines three categories of GEF biodiversity operations:
- Operational Programs, for long term protection and sustainable use of biodiversity in ecosystems. This is where the bulk of GEF financing is concentrated.
- Enabling Activities, prepared and scheduled in accordance with operational criteria responding to CBD guidance including the Clearing House Mechanism.
- Short Term Response Measures, offering cost-effective opportunities to conserve and sustainably manage biodiversity.
- 17. As part of GEF's overall response to the guidance of the Third Meeting of the CoP, the following process has been adopted in addressing the issue of agricultural biodiversity within the GEF:
- Emphasizing agrobiodiversity concerns within the GEF Operational Programs;
- Revising the operational criteria for Enabling Activities to reflect emerging needs;
- Encouraging the Implementing Agencies to assist with country-driven, Short-Term Response Measures in agrobiodiversity and to include pilot components and demonstration of techniques into projects.
- 18. Regular review of the experience of ongoing projects and programs in agrobiodiversity and consultations with concerned countries and institutions will help the GEF progressively sharpen the focus of its interventions. Of particular importance are GEF policies on incremental costs, public involvement, and targeted research.

# **OPERATIONAL PROGRAMS**

19. Operational programs are the primary framework for the implementation of the GEF Operational Strategy in the biodiversity focal area. Operational programs guide the planning and preparation of eligible projects by stakeholders in collaboration with Implementing Agencies. They define specific objectives, expected outcomes, outputs, and activity types, as well as underlying assumptions and risks in program implementation in accordance with the logical framework approach.

20. Biodiversity programs are ecosystem-based. The programs have been initially designed to cover Arid and Semi-Arid Zone Ecosystems; Coastal, Marine, Freshwater Ecosystems; Forest Ecosystems (both dry and moist; humid and sub-humid); and Mountain Ecosystems in accordance with COP priorities. Each operational program encompasses, in an integrated manner, two objectives: conservation and sustainable use of biodiversity (including Agriculture).

# The conservation objective

- 21. This objective of the operational programs focuses on *in situ* conservation activities within and adjacent to conservation areas. These efforts will take into account national priority areas identified pursuant to Article 7 and 8 of the Convention, as well as scientific assessments completed under other international agreements. Activities in this area addressing the CBD agrobiodiversity priorities outlined in decision III/11 include:
- Assessing the impact of natural disturbances and the compound effect of anthropogenic stress;
- Controlling alien, invasive species;
- Building capacity for biosafety activities, formulated on a case by case basis in the context of a specific project responding to country driven national priorities;
- Identifying components of biological diversity important for its conservation with regard to the indicative list of Annex 1 of the CBD;
- Identifying processes and categories of activities which have or are likely to have significant adverse impacts on the conservation of biodiversity;
- Piloting selected activities that are country-driven national priorities and which develop and/or test methods and tools, such as participatory rapid biological/ecological/social assessment, geographical information systems, and data analysis systems of importance for biodiversity conservation.
- 22. As indicated above, the CBD objective on *in situ* conservation and conserving the genetic variability of wild relatives of domesticated species and their entire gene pool is covered by the conservation objective of the existing operational programs.

# The sustainable use objective

- 23. Because it is not possible to conserve all species in a region by using conservation areas alone, the operational programs support biodiversity conservation and sustainable use outside the designated conservation or protected areas and its integration into the management of the natural and modified surrounding areas. This includes all human uses of ecosystems. A range of uses is possible -- from full protection through various forms of multiple use, with conservation easement, to full scale use -- such as agriculture, forestry, aquaculture, livestock production, and urban development. Activities that involve biodiversity management within the productive sectors of the economy promote long term sustainability because they will help address the underlying causes of biodiversity loss.
- 24. The use of agroecosystems is largely motivated by both subsistence and economic needs and interests of the people. Efforts to conserve agrobiodiversity can only succeed if those interests are taken into account during the preparation and implementation of relevant measures. This will increase the likelihood of the sustainability of GEF supported interventions beyond the duration of the project.

# **Monitoring and Evaluation**

- 25. The GEF operational programs in biodiversity outline how outcomes of project implementation will be monitored and evaluated. The following monitoring measures which apply more specifically to agrobiodiversity may be added:<sup>1</sup>
- Periodic surveys of the variety of agricultural breeds and species used in specific human use systems.
- Assessments of changes in the diversity and density biocontrol agents, pollinators, and soil microorganisms in relevant agroecosystems
- Surveys of trends in using land races, underutilized crops, and other rare species, as well as breeding of traditional livestock and the *in situ* conservation of their wild relatives.
- Surveys on the impact of regulatory change, fiscal, trade, incentive and capacity building measures
  on the market shares of agricultural products that have been produced and processed in sustainable
  agricultural production systems that promote agrobiodiversity, such as organic farming
- 26. Secondary evaluation tools to monitor outputs at the project level would include specific, customized indicators to measure the removal of specific constraints, such as the recognition of specific sustainable farming techniques that enhance agrobiodiversity. Local institutions such as National agricultural research Systems and Councils will be closely involved in such monitoring activities.

# **Assumptions and risks**

27. Overall **assumptions and risks** in the implementation of biodiversity operational strategies are listed in biodiversity operational programs Biodiversity Operational Programs, paragraphs 13 and 14. As in all projects, it is assumed that the baseline activities on which the project would build (or the funding for activities for which the project would substitute), will have been committed by collaborating institutions in a timely way. In the case of agrobiodiversity, a particularly important assumption is that the country's proposed approach to taking advantage of new opportunities in agrobiodiversity is fully achievable, economically viable, and socially acceptable within the overall policy, trade, and regulatory framework of the country.

# **Eligible activities**

- 28. Agrobiodiversity conservation activities are an integral part of the GEF biodiversity operational programs. The GEF provides funding support for activities within species, between species, and at the ecosystem level. Contributions to the conservation and sustainable use of agricultural biological diversity will become increasingly important in the context of terrestrial, freshwater, and marine biological diversity CoP decision III/11 (introduction).
- 29. The following activities outlined in the GEF Biodiversity Operational Programs are relevant in addressing objectives of the CBD agrobiodiversity concerns:
- Integrating biodiversity conservation and sustainable use objectives in land use and natural resources use management plans;
- Piloting projects providing alternative livelihoods for local and indigenous communities residing in buffer zones of globally important biological areas;

-

<sup>&</sup>lt;sup>1</sup> See CoP decision III/11 paragraph 15, m.

- Identifying and conserving components of biological diversity important for sustainable use of agroecosystems, with regard to the indicative list of Annex I of the CBD;
- Demonstrating and applying techniques to sustainably manage biodiversity important to agriculture, including wild relatives of domesticated plants, animals and their gene pools;
- Supporting capacity building efforts that promote the preservation and maintenance of indigenous and local communities knowledge, innovation, and practices relevant to the conservation and sustainable use of agrobiological diversity, with their prior informed consent and participation;
- Incorporating components of targeted research (including diversification of crops) important for the conservation and sustainable use of agrobiodiversity in programmatic intervention when instrumental for the achievement of GEF biodiversity program objectives in specific ecosystems and countries consistent with national priorities; and
- Including sustainable use awareness components when relevant to program objectives and consistent with national priorities.
- 30. Activities that could be modified specifically to manage agrobiodiversity sustainably include:
- 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.
- Soil conservation and restoration of degraded areas to conserve biodiversity.
- Natural resources management activities which emphasize integrated resources 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.
- Energy conservation projects that emphasize alternative energy sources to conserve the vegetation and biological diversity in human use.
- Establishment of cost recovery mechanisms and financial incentives for sustainable use.
- 31. Eligible activities by which countries can generate global environmental benefits and economic sustainability at the same time include the following: <sup>2</sup>
- Country-driven information, advisory, and extension services that draw special attention to viable farming practices helping to conserve agrobiodiversity;
- Development and introduction of gender-specific incentives and reward schemes for the use and preservation of indigenous knowledge that supports agrobiodiversity conservation;<sup>3</sup>
- Development of necessary human and institutional capacities to promote sustainable solutions in agrobiodiversity conservation, including training, demonstration, know-how transfer;
- Advisory services to facilitate policy reform that would support the conservation and sustainable use of agrobiodiversity;<sup>4</sup>
- Ensuring public participation in the development of sustainable agricultural and resource use policies;
- Introducing regulatory incentives (such as economic instruments, fiscal, trade and other incentive instruments) for sustainable agricultural production practices that help to enhance biological diversity;
- Promoting the development of markets and business opportunities for diverse organic agricultural products;

<sup>&</sup>lt;sup>2</sup> All activity types constitute responses to priority issues outlined in decision III/11 of the CoP.

<sup>&</sup>lt;sup>3</sup> See CoP decision III/11 annex 1.

<sup>&</sup>lt;sup>4</sup> CoP decision III/11 paragraph 15 c CoP decision III/11 paragraph 15 g CoP decision III/11 paragraph. 15 i

- Raising consumer awareness and improving demand in favor of diverse varieties instead of uniform products;
- Enabling access to innovative financing and financial risk management mechanisms to promote private investment in farming systems that conserve agrobiodiversity;
- Activities to enable the reduction of transaction costs in biodiversity promoting farming systems, i.e., support for the establishment of appropriate production, marketing, trading, and distribution techniques.

Particular attention will be drawn to indigenous people and traditional rural communities who maintain agrobiodiversity of global importance through their farming practices.

## **ENABLING ACTIVITIES**

- 32. Enabling activities -- which include inventories, compilation of information, policy analysis, strategies and action plans -- are a basic building block of GEF support for country efforts. They are either a means of fulfilling essential communication requirements to a convention, provide a basic and essential level of information to enable policy and strategic decisions to be made, or assist planning that identifies priority activities within a country. Relevant enabling activities may include stocktaking and assessments that are specific to agrobiodiversity, as well as analyses of relevant fiscal, economic, trade, and agricultural frameworks. This is to identify options to facilitate the achievement of agrobiodiversity objectives of the CBD by means of policy reforms that attack the root causes of problems. It would include the planning and preparation of specific components of national biodiversity strategies and plans, and the formulation of relevant chapters of the first National Report to the CBD due by the end of 1998.
- 33. The criteria for enabling activities have been revised to include the activities foreseen in decision III/11. Revised operational criteria provide an opportunity for countries that have already received assistance from the GEF for enabling activities to incorporate, in their ongoing project, new activities responsive to the guidance approved by the Third Meeting of the Conference of the Parties to the CBD. Such countries may request that the scope of the approved project be revised so as to take into account the additional guidance

## **SHORT TERM RESPONSE MEASURES**

34. These measures put forward in this category are very cost effective and highly likely to achieve their goals.<sup>5</sup> An example of a short term measure aiming at the conservation of agrobiodiversity is provided in Box 1.

#### **INITIAL EMPHASIS**

35. Agrobiodiversity is not evenly distributed over the globe and tends to be more concentrated in tropical and subtropical ecosystems. In determining their agrobiodiversity specific priorities in national programs to implement the CBD, GEF recipient countries would have available scientific information on the centers of origin for agricultural species, areas of their primary distribution, and on the centers of

<sup>&</sup>lt;sup>5</sup> Detailed criteria for short term response measures in the biodiversity focal area are outlined in Chapter 2 of the *GEF Operational Strategy*, Page 22.

diversity of domesticated species. (See Box 2 for some areas of emphasis in the operational programs.)

36. An important element of agrobiodiversity is the genetic variability of domesticated species representing their gene pool. The origins of agricultural species, and their wild relatives, are mostly found in natural ecosystems of developing countries. So-called "Vavilow Centers of genetic diversity" are located in Central and South America, Ethiopia, India, China, the Mediterranean, the Caucasus, Central Asia, and the Indomalayan region. Conserving the variability of domesticated species, including land races and underutilized crops and breeds in ecosystems, will normally be most effective in regions of their origin, where wild relatives are still found in natural habitats. In view of accelerated rates of biological degradation, it will be important to promote the conservation of agrobiodiversity in all regions and ecosystems, particularly where diverse biological resources important to agriculture are still available and adapted to the local environment.

# Box 1 Short Term Measures

The reintegration of wild relatives of domesticated species to their native natural ecosystems may be a matter of particular urgency, if these species are extinct in nature but still maintained in *ex-situ* collections. Successful reintegration will require priority measures in land use planning to be reflected in national environmental action plans and/or biodiversity strategies. This would also require substantial commitments by the government to ensure the long term survival of the reintegrated species in the wild. Incremental costs of the actual reintegration, and necessary financing for the setting up of an economically viable mechanisms to cover recurrent costs of reintegration, would be eligible for GEF support as a short term measure. This would be on condition that the project would have a very high likelihood of success, and appropriate legal, administrative, and incentive frameworks would be established by the recipient government.

For example, the GEF Mongolia Pilot Phase biodiversity project includes a component that supports activities for the reintegration of the Pryziwalski Horse, a wild relative of the domesticated horse, to its native habitats in Mongolia. Similar activities involving other species that are extinct in the wild but exist in ex-situ collections could be considered within the agrobiodiversity short term window.

# **Box 2 Giving Priority within the Operational Programs**

# Arid and Semi Arid Ecosystems

In implementing the GEF operational program on arid and semi-arid ecosystems, priority would be given to the conservation of genetic variability within species of potential agricultural interest. This would include specifically the conservation of land races and traditional grown breeds and crop varieties. Criteria for the selection of priority activities should include:

- Measures to enhance the diversity of crops in use, and land races including near domesticated and wild relatives and to enhance diversity of agroecosystems.
- Measures to enhance the vitality of soil fauna, the diversity of pollinators, and biocontrol agents, use of trees in agroecosystems (agroforestry) and livestock.
- Measures to reduce the fragility of ecosystems hosting biological diversity important to agriculture, e.g., reduction of the intensity and frequency of biotic and abiotic stress factors affecting the habitat/ecosystem.
- Promotion of pastoral systems and grazing practices that ensure dryland biodiversity conservation.

#### Coastal, Marine, and Freshwater Ecosystems

Coastal, marine, and freshwater ecosystems host extremely broad varieties of biological diversity in consumptive human use. This includes mangroves, marine and freshwater fishstocks, algae, and other plants species. Priorities in conserving and enhancing the scope of biological diversity in these ecosystems may include the application of extraction and other harvesting techniques that avoid over utilization of species/stock and disturbance of ecological balance in their habitats, as well as the curtailment of practices adversely affecting secondary species.

#### Forest Ecosystems

In implementing the GEF operational program on forest ecosystems, priority should be given to the conservation of the genetic variability of tree and other forest species in human use, including herbs, and medicinal plants. This would include the conservation and sustainable use of their near relatives and currently underutilized species with a high potential for later use. The diversification of species being used in commercial plantations and the promotion of diverse agroforestry systems should be priority areas in promoting biological diversity important to human use in forest ecosystems.

# Mountain Ecosystems

Since human use of mountain ecosystems is still often primarily driven by the subsistence interest of local/indigenous populations, special attention would be given to the preservation and revitalization of traditional agricultural practices that conserve agrobiodiversity in human use mountain ecosystems, especially home gardens, terrace agriculture, and traditional agroforestry.