

Document of
The World Bank

Report No:

PROJECT BRIEF
ON A
PROPOSED GRANT FROM THE
GLOBAL ENVIRONMENT FACILITY TRUST FUND
IN THE AMOUNT OF USD 3.4 MILLION
TO THE
GOVERNMENT OF BOSNIA AND HERZEGOVINA
FOR A
FOREST AND MOUNTAIN PROTECTED AREAS PROJECT
May 2, 2006

CURRENCY EQUIVALENTS

(Exchange Rate Effective September 27, 2005)

Currency Unit = Konvertible Marka (KM)

KM 1 = US \$ 0.6172

US \$1 = KM 1.6203

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

BiH	Bosnia and Herzegovina
CAS	Country Assistance Strategy
CBD	Convention on Biological Diversity
CBO	Community Based Organization
CFAA	Country Financial Accountability Assessment
CRIGG	Conservation and Rural Income Generating Grant
EA	Environmental Assessment
EAF	Eco-Activity-Facility
ECSSD	Environmentally and Socially Sustainable Development Sector Unit
EMP	Environmental Management Plan
FBiH	Federation of Bosnia and Herzegovina
FDCP	Forest Development and Conservation Project
FMU	Forest Management Unit
FMR	Financial Management Report
FMS	Financial Management System
GEF	Global Environmental Facility
GIS	Geographic Information System
GTZ	German Development Cooperation
HCVF	High Conservation Value Forest
ICB	International Competitive Bidding
IUCN	The World Conservation Union
JICA	Japanese International Cooperation Agency
M&E	Monitoring and Evaluation
MAFW	RS Ministry of Agriculture, Forestry and Water Resources
MAWF	FBiH Ministry of Agriculture, Water Resources and Forestry
MoFTER	State Ministry of Foreign Trade and Economic Relations
MPPCEE	RS Ministry of Physical Planning, Civil Engineering, and Ecology
MPPE	FBiH Ministry of Physical Planning and Environment
MTDS	Medium Term Development Strategy
NBC	National Biodiversity Committee
NBSAP	National Biodiversity Strategy and Action Plan
NCB	National Competitive Bidding
NEAP	National Environmental Action Plan
NGO	Non-Governmental Organization

NP	National Park
NSCESD	National Steering Committee for Environment and Sustainable Development
NTFP	Non-Timber Forest Product
OM	Operational Manual
PA	Protected Area
PIU	Project Implementation Unit
PMR	Project Management Report
PRSP	Poverty Reduction Strategy Paper
RS	Republika Srpska
SA	Social Assessment
SFE	State Forest Enterprise
SG	Small Grant
SGC	Small Grant Committee
SGP	Small Grant Program
SSCADP	Small-Scale Commercial Agricultural Development Project
TA	Technical Assistance
TORs	Terms of References
USAID	United States Agency for International Development
UNDP	United Nations Development Program
WWF	World Wide Fund for Nature

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**BOSNIA-HERZEGOVINA
FOREST AND MOUNTAIN PROTECTED AREA PROJECT**

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A. STRATEGIC CONTEXT AND RATIONALE

1. Country and sector issues

Bosnia and Herzegovina (BiH), with a land area of 51,000 km² and an estimated population of 3.5 million, is endowed with internationally recognized rich biodiversity assets. About 50% of the country is covered by forests and 25% by pastures. It is mostly hilly and mountainous, with only 5% of territory classified as plains, 24% as hills, 29% as Karst and 42% as mountains.

Bosnia-Herzegovina's Biodiversity is Significant. BiH is at a geographical cross-road and includes: 5 types of climate (continental, moderate continental, Mediterranean, modified Mediterranean, mountain), 3 agro-climatic regions (Alpine-Nordic, Euro-Siberian and Boreo-American, Mediterranean), and multiple provinces, landscape types, and biotopes. BiH covers three globally significant ecosystems identified by WWF's Global 200 program and adopted by the Biodiversity Strategy for the Bank's ECA Region: (i) the European-Mediterranean Montane Mixed Forests; (ii) Mediterranean Forests, Woodlands and Scrubs; as well as (iii) Balkan Rivers and Streams. BiH also has Mediterranean Sea and the Karst (cave) ecosystems. At a *smaller* scale, BiH hosts globally important *sites* identified under different programs: Ramsar sites (e.g., Hutovo Blato which is also an important bird area); relatively undisturbed ('virgin') forests like Perucica (a UNESCO site), and the forest preserves of Janj and Lom.

Its rich biodiversity includes over 5,000 confirmed taxa of vascular flora, including 450 of which are endemic to BiH only. For several taxonomic groups (e.g., lichens, mosses, algae, fungi, and bacteria) comprehensive surveys do not exist, but available data indicate these groups are also highly diverse. BiH's forest resources are among the richest in Europe with a wide variety of coniferous and deciduous species. Its large blocks of forests maintain ecological integrity; river dynamics; and large carnivore dispersion between Central and South-East Europe. Forests also help sequester CO₂.

Much less is known about fauna than flora -- inventories are not complete, and uniquely for Europe, BiH does not yet have its own official Red Lists. However, it is known that at least thirty-two species of animals and plants found in BiH are on the 2002 IUCN Red List of threatened species. The presence of large carnivores in some parts of the country indicates the food chain is still complete. Keystone species include bear, wolf and river otter. Interesting flagship species are bats, of which several are considered in vulnerable status.

For further specific information on biodiversity aspects of BiH's existing and proposed protected areas, please see Table and the detailed description of the areas in Annex 4b.

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

areas which would be protect key biodiversity and cultural assets, as well as providing new income opportunities for local residents.

However, in the absence of a strong national and local level capacity to protect natural resources, economic development, including that of the forest and wood processing industry, has damaged and could further harm BiH's ability to preserve its biodiversity in the long term. In forest and mountainous ecosystems, the government must cope with competing interests in dealing with the following obstacles:

- inadequate funding for priorities in biodiversity protection within different institutions at state, entity and local levels;
- inefficient implementation of existing legislation, and problems in developing and maintaining efficient monitoring systems;
- lack of an institutional framework, as well as lack of agreed standards for sustainable management of natural resources, between different levels of government;
- lack of collaboration between institutions to sufficiently incorporate biodiversity conservation and ecosystem approaches (including a move to new technologies for landscape management) into traditional forest management as well as physical planning;
- lack of awareness and information in civil society and government institutions regarding biodiversity conservation; and
- a tradition of limited public participation in the decision making processes.

Natural resources use and protection. About 2 million people (58% of BiH's population) live in rural areas, and for them forest and mountain ecosystems are an important (and sometimes the only) source of subsistence, employment, energy and recreation. Furthermore, since BiH has a rural population density (43 persons per square km) which is lower than any of the other Balkan countries, sound management of its "production landscape" values (forest and grassland management) can provide income for local people while at the same time its "non-use" values (from watershed protection and global ecosystem values) can be protected.

Supported by the European Commission an environmental legal framework has been established to align with relevant EU directives and international conventions. Nevertheless, its implementation has been insufficient mainly due to the lack of financial resources, and technical and human capacity. Aside from a Framework Law on Environmental Protection at the state level, different entity laws have been enacted focusing on: (a) the protection of water, air, as well as nature; and (b) the management of solid waste¹. In the entities, Laws on the Protection of Nature stipulate the revitalization, protection, preservation and sustainable development of landscapes, ecosystems, plants, animals as well as functions of nature that are part of the environment. The protection of forest biodiversity is also regulated by the applicable Law on Forests, as well as by laws on hunting and fishing. In addition it is stipulated in FBiH and RS Constitutions that forests and forestland are public goods which enjoy the special care and protection of the entities and state.

¹ As a result of the Dayton Peace Accords (1995), in addition to government authority centered at the 'state' level, Bosnia-Herzegovina is divided into two Entities - The Federation of Bosnia and Herzegovina, and the Republika Srpska - each with its own complete governmental administrative structure. Hence, in most areas of natural resources management, the Entities have responsibility for creating and implementing all relevant laws.

National System Plan for Protected Areas. With support of UNEP-GEF Bosnia-Herzegovina is in the process of preparing a national protected area systems plan that should be completed by mid-2007. The plan is a cornerstone of the National Biodiversity Strategy (NBS) and its preparation is guided by a government-sponsored Biodiversity Committee that is composed of technical professionals from all relevant sectors, including academicians, biodiversity staff in the environment and agriculture ministries in both entities, current PA managers, forest management companies, forest enterprises.

The proposed GEF-financed Forest and Mountain Protected Area Management Project (FMPAP) is consistent with the Protected Area (PA) system planning process carried out by the Biodiversity Committee and supported by UNEP. Several members of the Biodiversity Committee are members of the FMPAP Working Group to promote complementarity and avoid duplication.

The areas proposed for inclusion in the FMPAP were derived through a comprehensive and participatory consultation process led by the Working group and reflect a strong technical consensus on the highest priority areas for immediate protection that would be part of any future national plan. Four of the six areas are already protected; Una River has a completed Feasibility Study and the Igman mountain complex has a Feasibility Study underway.

Collaboration between the FMPAP and the PA system planning exercise will continue during project finalization and implementation especially through the involvement of Working group members in both activities. The preparation phase of the FMPAP already provided important feedback for the UNEP-led process, particularly on models of community engagement and public consultations. These consultations have revealed a number of issues which will be relevant for almost any area proposed for protected status (including, *inter alia*, public expectations about job creation and income improvement as PAs are established, requests for technical guidance on improved agricultural practices, concerns over restrictions on forest use (even if that use is illegal), concerns about grazing and property rights, etc.). Similarly, results of future public consultations, as well as project implementation experience will feed back into the UNEP exercise.

Donor assistance to the forestry sector. Since 1998, the governments of both entities have also been active in areas related to forest and landscape protection through the implementation of a Forestry Project, financed by the WB, EU, Italian and Norwegian governments (1998-2003). The 1998 Forestry Project focused on the reforms needed for the recovery of the forest sector, but also helped to improve the protection of forest ecosystems. A follow-up IDA-financed project, the Forest Development and Conservation Project (FDCP) was approved in 2003 to sustain the reform momentum and improve forest management, The FDCP also supports promotion of biodiversity conservation in the forest production landscape.

The proposed GEF-financed FMPAP builds on the work carried out by the IDA project in several ways. The IDA project created a comprehensive database on High Conservation Value Forests (HCVFs) that has already informed the feasibility studies for the proposed Una River PA, in terms of assisting with zoning recommendations. The same will be done during the

feasibility study work for the Igman Mountain complex, and in the development of new management plans in Sutjeska and Kozara National Parks. It is highly likely that most forest stands designated as HCVF will end up in some protected status eventually, whether in the proposed FMPAP, or in the future.

In addition, the FDCP has contributed to the development of procedures for comprehensive consultation processes for PA establishment that were used in the social assessments and stakeholder participation plan for the FMPAP.

Institutional arrangements: Responsibilities for landscape planning and management generally rest with the Entity Ministries of Environment and Physical Planning, although in the FBiH some tasks (e.g. preparation of spatial development plans) have been delegated to the cantonal level. According to the Entity Laws on Nature Protection, four types of protected areas (protected areas) are defined, which reflect only loosely the IUCN classification system: (a) Nature Protection Areas; (b) National Parks; (c) Natural Monuments; and (d) Landscape Protection Areas. In both entities, the Ministries in charge of Environment fulfill principal oversight functions for planning and management of protected areas under the first two categories, with the right to delegate competences to other institutions. The management of protected areas is being carried out by specialized public enterprises, which in all instances are constrained by insufficient resources from governmental budgets. Responsibilities for Natural Monuments; and Landscape Protection Areas rest with other institutions (including Ministries in charge of Water Management and Forestry, Municipalities, etc.). In cases where these protected areas are located in public forests, local State Forest Enterprises are responsible for maintaining the conservation status.

PA Financing. In order to fulfill the necessary management functions, currently existing protected areas rely on the generation of revenues for operations from various activities. The largest portion of funding for existing protected areas comes from selective thinning, and this is likely to remain the case for some time. In addition, existing parks obtain some budget support from government authorities (future parks will also receive government budget support, at levels to be determined based on variety of factors), which is expected to increase in the future, based on new regulations currently being formulated. Tourism is a very important revenue source for existing parks, and will be for future parks as well (particularly the Igman mountain complex). Other revenue sources include fees for grazing and gathering of NTFPs.

2. Rationale for Bank involvement

The Bank has been continuously involved in the natural resources/environment sector since 1998, while most other donors have been disengaging. The Bank's current Forest Development and Conservation Project (FDCP) (containing a biodiversity component co-financed by the Italian Government) has been assisting in sustaining the momentum for organizational reform in the forest sector, and preparing the ground for a holistic approach in landscape management, through supporting participatory land use planning and awareness building for biodiversity in the forest production landscape. In addition, the GEF-supported Integrated Ecosystem Management Project of the Neretva and Trebisnjica Rivers, currently under preparation by the Bank will complement the activities in forest and mountain ecosystems. As importantly, the World Bank

has wide regional experience in GEF biodiversity projects and forestry operations, including the Croatian Karst Ecosystem Conservation Project. Through its role as broker, the Bank has and will continue to mobilize donor support for biodiversity conservation in BiH.

The project will directly address the second pillar of the CAS: promoting sustainable private-sector-led growth through “economic growth grounded on more sustainable use of natural resources:”. At the same time, activities implemented under the project will contribute to the achievements of the other two CAS pillars (improving public finance and strengthening institutions, as well as investing in key social and economic infrastructure) by promoting efficient management through: (i) efficient protected area administrations and (ii) a more efficient and sustainable utilization and protection of natural resources. The project has been included as one of the deliverables in the CAS document, since the latter foresees the Global Environmental Facility (GEF) as a means of augmenting targeted support for BiH’s environmental strategy outlined in the National Environment Action Plan (NEAP) over the CAS period.

3. Higher level objectives to which the project contributes

With the proposed project the Bank will assist the Government to begin to address the importance of ecosystem approaches, the threats as well as the need for expanding the area for conservation and protection to 15-20% of the land area as outlined in the thematic annex on biodiversity and protection of natural and cultural heritage of the National Environmental Action Plan (NEAP).

Project activities are also supporting directly the first objective outlined in the Medium Term Development Strategy (MTDS), creating conditions for sustainable, and balanced economic development, which in the longer term will have an impact on the reduction of poverty (the 2nd MDTS objective). In addition, by increasing the area under formal protection status and working towards a country-based protected area network the project will assist the Government in initiating the Natura 2000* assessment in support of the 3rd MDTS objective, to accelerate EU integration. The preparation and implementation of the small grant program supported by the project will build technical skills for developing project proposals for future funding by EU accession instruments.

The project’s objective are fully consistent with the provisions of the GEF Operational Strategy, and specifically with the Operational Program (OP) for Forest Ecosystems (OP3) with additional relevance to the OP for Mountain ecosystems (OP4) and linkages to the Conservation And Sustainable Use of Biological Diversity important to Agriculture (OP13). Within the biodiversity focal area the project primarily supports the Strategic Priority BD-1: Catalyzing Sustainability of Protected Area Systems.

* “Natura 2000 is the centrepiece of EU nature & biodiversity policy. It is an EUwide network of nature protection areas established under the 1992 Habitats Directive. The aim of the network is to assure the long-term survival of Europe's most valuable and threatened species and habitats. It is comprised of Special Areas of Conservation (SAC) designated by Member States under the Habitats Directive, and also incorporates Special Protection Areas (SPAs) which they designate under the 1979 Birds Directive. The establishment of this network of protected areas also fulfils a Community obligation under the UN Convention on Biological Diversity.” *Source*, FAQ about Natura 2000, EU Commission website : http://europa.eu.int/comm/environment/nature/nature_conservation/useful_info/documents_publications/pdf/memo_natura.pdf

B. PROJECT DESCRIPTION

1. Lending instrument

The project will be financed through a GEF grant to be executed by the Entity Ministries of Agriculture, Forestry and Water Management, through the implementation arrangements described in Section C.2 below.

2. Project development objective and key indicators

The Project Development Objective is to strengthen the institutional and technical capacity for sustainable protected area management and expand the national network of forest and mountain protected areas. The project's global environmental objective is to conserve globally significant biodiversity in critical forests and mountain ecosystems of BiH. The project focuses on improving the management effectiveness of four existing protected areas; bringing two additional sites under protected status, and promoting sustainable natural resource management and biodiversity conservation in their buffer zones.

Key performance indicators associated with these objectives are:

- Area under formal protection (using all IUCN categories) increases by 3% or approximately 150,000 ha;
- Portion of recurrent management costs covered by PA income increases to 15% from budget allocation, 40% from entry/service fees (for existing parks) and 25% from fees for new PAs
- New ecosystem approaches such as PA zoning, joint management, etc. are implemented in at least 3 PAs
- Increase in management effectiveness of 6 PAs (indicator to be determined at CEO endorsement)
- 200,000 ha of buffer zone areas supporting sustainable natural resource use and biodiversity conservation

3. Project components

A detailed project description can be found in Annex 4. Detailed descriptions of the areas confirmed as priority areas for project support can be found in Annex 4b.

Component 1: Physical Improvement of Existing Protected Areas, and Establishment and Operationalization of Critical New Priority Areas (total US \$2.76 million, of which US \$1.4 million is GEF). The project will finance development and implementation of new management plans, emphasizing ecosystem approaches, and approaches for participatory land use planning new infrastructure, and limited small-scale building rehabilitation, necessary for improving the operations of existing PAs, and for capitalizing the newly created protected areas. Infrastructure is generally “soft”, e.g. trail improvements, new trail creation, signage, resting places, park boundary markings, etc. In addition, the project will finance some limited goods for park operations, as well as technical assistance. The project will also implement some elements of the financing strategy for the PA system developed under the IDA-supported FDCP, including increasing the tourism capacity. The project will fund promotion and marketing activities, and assist with introduction of a standardized visitor fee structure for individual NPs and associated protected areas.

In the first year of implementation, the project will focus its support on the development of management plans for the two existing National Parks (NPs) Sutjeska and Kozara and for the Janj and Lom Forest reserves, while the development of new management plans for Una River and Igman mountain complex will likely begin near the end of Project Year 1. Implementation of the management plan is expected to start as early as Project Year 2. The project will also undertake feasibility studies regarding the potential to expand the already existing protected areas. Taking into account potential disagreement of expanding the current borders of the PAs, the project will work with all stakeholders concerned to develop and implement different models of PA expansion and management (e.g. PA zoning, joint management of adjacent areas, etc.).

In total, approximately 150,000 new hectares are to enter formal protection status. These areas will be a mix of national park and protected landscapes, along with some areas managed as strict nature reserves.

Component 2: Strengthening of Capacity at Local, Entity and State Levels for Biodiversity Conservation and Sustainable Land Use Practices (total US \$2.72 million, of which US \$1.6 million is GEF). The project will finance capacity building, learning and skill development at local, Entity and State levels in order to strengthen the institutions responsible for planning, establishment and management of protected areas throughout BiH and to ensure the sustainability of the expanded protected area network. Training will particularly focus on building new competencies for multiple use management of protected areas of all categories in BiH. An important aspect of the training will be with forest sector professionals, to give them new skills to promote forest management planning which incorporates biodiversity conservation at the level of the ecosystem, rather than the forest management units.

At Entity and State level the project will finance capacity building for the Ministries in charge of protected area management and land use planning (including the National Biodiversity Committee), so that these institutions would be capable to provide leadership for biodiversity conservation. At the local level the project will finance professional development in three areas: (i) protected area training (e.g. courses in forest and range management, visitor management and interpretation); (ii) ranger training, including patrolling and enforcement, working with local communities and user groups to build understanding and support for PAs; and (iii) business planning, which will include assistance in marketing, financial management. Additional support would be aimed at building the institutional and technical capacity to access the different EU funding programs and instruments to finance nature conservation (including the Natura 2000 network) once BiH will become eligible to take advantage of these funds.

In addition to the biodiversity monitoring system, under this component the project will establish a Monitoring and Evaluation (M&E) system, based primarily on the GEF Protected Area Management Tracking Tool for Biodiversity. The tool is currently under discussion with the counterparts and will be finalized prior to Appraisal, based on stakeholder workshops to be undertaken in May 2006. Component 2 finances also project management and operating costs.

Component 3: Generation of Alternative Rural Livelihood Opportunities through Wise Multiple-use of Protected Areas (total US \$1.42 million, of which US \$0.4 million is GEF). The Project will provide financing to establish and operate a Small Grants Program (SGP) in

order to support stakeholders living in and around protected areas in small-scale tourism development activities which directly or indirectly contribute to biodiversity conservation and to provide incentives for stakeholders to change current unsustainable land use practices that have an adverse impact on the natural resource base in or adjacent to the protected areas and pose a threat to biodiversity. Sub-projects funded under the SGP will be targeted towards developing new livelihood options which promote ecologically friendly tourism and improve land use practices in support of the project overall objective of increasing PA sustainability. Sub-projects could include small-scale waste management/recycling initiatives, habitat restoration, alternative energy promotion (e.g. small-scale hydropower), environmental and cultural education, eco-tourism programs and facilities, and community-based monitoring. Eligibility criteria and procedures for the operation of the competitive grant program will be detailed in the SGP Operational Manual that will be finalized at project appraisal. GEF co-financing will be limited to activities that can demonstrate biodiversity conservation benefits and will be only incremental to what provided by the project and the beneficiaries. Beneficiaries are expected to contribute at least 10% of the overall project budget and in some cases up to 50%. To ensure sustainability of the SGP, the project will help beneficiaries with business planning advice, market research, and links to other tourism/rural development initiatives (such as the Cluster Competitiveness Activity in USAID).

4. Lessons learned and reflected in the project design

Similar projects have been designed and are under implementation (e.g. Croatia, Georgia, Romania). From the experience of these comparable initiatives in Central and Eastern Europe and from other parts of the globe, the following key lessons have been learned:

- Projects should have broad support in the government, civil society, and local communities where the protected areas are proposed, or to be expanded, or management plans developed and/or implemented;
- The early involvement of key stakeholders by small workshops in project preparation through a participatory planning process, specifically including local communities and influential decision makers, is essential in order to ensure ownership and successful project implementation;
- The conservation management strategies developed for the management of the protected areas, buffer zones, corridors etc. should establish a link between the objectives of conservation and tangible benefits such as the improvement of sustainable livelihood opportunities for the key stakeholders for example, economic and community development associated with appropriate forms of rural and eco-tourism, etc.
- Effective public awareness campaigns should be built into the planning process for protected areas in order that the widest possible extent of stakeholders are informed;
- Close co-operation must be maintained with other projects and initiatives working in the same broad technical / geographical areas;
- To achieve environmental, social and financial sustainability, the conservation strategies developed must be site-specific and address local issues and needs;
- Where instances of the consumptive use of natural resources such as forestry, hunting, NTFPs etc. are an issue, the users of that resource should be thoroughly involved in the design and development of management system to ensure the sustainable use of the resource concerned, and the control measures which need to be developed and control mechanisms which need to be developed and applied;

These experiences will be incorporated into the project and subsequently built upon. This will be undertaken specifically by: (i) addressing the links between sustainable natural resource use and management and socio-economic issues; (ii) building regional, entity and local capacity for conservation management; and (iii) ensuring a participatory and transparent approach is adopted to project preparation and implementation.

5. Alternatives considered and reasons for rejection

One project alternative was to focus mainly on the expansion (and less on PA management) of the protected areas so that the size of formally protected areas would become bigger. This approach was rejected as management capacity of protected areas was seen as the critical to ensure sustainability in existing protected areas. Taking into account the lack of sufficient funding to manage the existing areas, it was decided to use project resources to focus on developing management plans and building technical capacity. In addition, from the onset it was very clear that any expansion of existing protected areas which would have resulted in loss of access, and/or imposed management restrictions, would have been unacceptable for adjacent stakeholders (in particular State Forest Enterprises).

Another project alternative was to work only in one entity. This proposal was not considered, because a main goal of the project is capacity enhancement and training covering the whole country. Therefore the decision was made to work in both entities, in six priority areas, to reach as many persons as possible with the given budget. Covering now six priority protected areas, the project will create synergies among PA management bodies throughout the country.

Consideration was also given to focusing only on existing protected areas and improving their management. This option was rejected in favor of undertaking project activities in the buffer zones bordering the protected areas, so as to strengthen linkages between rural development opportunities, biodiversity conservation, and tourism and increase sustainability of project interventions. The broader focus also enables the project to have a greater socio-economic impact on the communities adjacent to the parks, which will extend the benefits of the project to a wider population.

During different meetings the alternative was evaluated how to create a PA crossing the inter-entity-borderline like Igman-Bjelasnica-Treskavica-Visocica on both entities. The advantage of this arrangement would have been substantial experience gained in creating bigger areas and strengthening inter-entity cooperation. However, this alternative was rejected as politically difficult to achieve and too complicated regarding the coordination of the protected area management bodies. It should be noted that the Feasibility Study for the Igman mountain complex will focus primarily on the Federation side, but will also include proposals for an inter-entity park, in the hopes that this might materialize in the future.

C. IMPLEMENTATION

1. Partnership arrangements (if applicable)

The project's preparation, implementation and sustainability strategies are based on the establishment of a number of partnerships, the most important being that between the Ministries

in charge of Environment and Physical Planning and the Ministries of Agriculture, Water Management and Forestry, from both entities. Additional important partnerships are with different levels of government and administration, such as the Ministry of Foreign Trade and Economic Relations (as GEF Focal Point) as well as cantonal and municipal institutions. These five institutions will be represented in the project steering group, formed to support the project coordination teams. At the local level, important working relations have been established between on-the-ground personnel managing protected areas and state forest enterprises, to help avoid potential conflicts on land use rights and access to natural resources.

As noted above, the Bank is currently assisting with implementation of the IDA-financed Forest Development and Conservation Project (FDCP). The FMPAP will seek to build on the FDCP's close collaboration with the Italian government, which is co-financing the FDCP biodiversity component. On the basis of an agreement between the governments of Italy and BiH to cooperate on protected areas and sustainable development issues (Declaration of Sarajevo, July 2003), a number of joint activities have already been undertaken, and these are complementary to the activities envisaged during implementation of the FMPAP. To-date, activities include experience exchange, capacity building, joint projects (for example a small botanical gardens in Sutjeska National Park) and funding for specific activities from the Italian Ministry of Environment and other Italian institutions. In addition, Italian Government cofinancing is being discussed for parts of the FMPAP (this is to be confirmed prior to Appraisal).

It should be emphasized that the proposed FMPAP will not duplicate the efforts of the FDCP. Rather, the tools already developed (as above), as well as others, e.g. new forest management plans, forest inventory data, the training of forest enterprise employees, will be leveraged for achievement of the FMPAP goals.

The proposed project complements the GEF-supported "Integrated Ecosystem Management of the Neretva and Trebisnjica River Basin" currently under preparation. The goal of the Neretva project is to ensure the effective and environmentally sound management of the trans-boundary (shared by BiH and Croatia) Neretva River Basin. Activities will focus on: capacity building, improvement of ecosystem management including promotion of biodiversity conservation, and community-based approaches to sustainable ecosystem management. Coordination and collaboration during preparation and implementation will be facilitated by the Bank as the IA for both projects.

As the project will finance activities in forest ecosystems, it will continue the existing partnerships with (i) USAID's Cluster Competitiveness Activity and (ii) UNDP's new "Forestry for Employment Project in the Srebrenica Region". Both projects have been designed to take into account the FDCP implementation's experience in training forestry staff in techniques for more sustainable forest management and timber processing, which is already building capacity for approaches that value and protect environmental forest functions and biodiversity conservation.

Taking into account the relevance of the focus of the recently finalized project to promote sustainable development through eco-tourism (funded through JICA) partnership arrangements

between the beneficiaries of the JICA project and the stakeholders of the FMPAP will be promoted to facilitate local ownership and community participation.

2. Institutional and implementation arrangements

The project would be implemented over a 48 month period starting in the first quarter of calendar year 2007. Project Effectiveness is expected by January 2007, and the Mid-Term Review would be completed by the end of 2008. The project is expected to be completed by December 2011. BiH, represented by the Ministry of Finance and Treasury, would be the recipient of GEF grants and would transfer the proceeds to the FBiH and RS Governments by opening two special accounts. The project would be implemented at field level by the existing protected area management organizations, overseen and assisted by the Ministries of Environment and Physical Planning, and where appropriate, also in coordination with the Ministries of Forestry, in both entities.

The Ministries of Environment and Physical Planning would lead the process of protected area declaration and establishment. The Ministries would be responsible to prepare new projects, as well carrying out annual planning, financial management, contracting, supervision, monitoring of repayments, reporting and evaluation during the entire project implementation period.

Taking into account that the Ministries of Agriculture have been implementing related World Bank projects already, the project preparation has been utilizing this existing in-house expertise (in particular for procurement and financial management), for contracting of preparation studies, and overall assistance with preparation tasks. However, these units will not retain the responsibility for project implementation. This will be undertaken by specialized teams within both entity's Ministries of Environment and Physical Planning. These teams are now in place, and gaining experience managing other international projects. A full assessment of their capacity, in order to determine immediate training needs, will be undertaken prior to project Negotiations.

Further details on implementation arrangements can be found in Annex 6.

The total project expenditures for RS and the Federation would be US\$6.9 million equivalent, of which US \$3.4 million would be financed from the GEF Grant, co-financed with US \$2.5 million from bi-lateral sources and US \$1 million from the two Entity Governments. The counterpart contributions would be transferred to a separate counterpart account managed by the Implementation agency. Details of financial management arrangements can be found in Annex 7.

3. Monitoring and evaluation of outcomes/results

The strategy developed for the project M&E system in addition to the biodiversity monitoring system is based on the Results Framework outlined in Annex 3 and on lessons learned from World-Bank implemented projects in BiH. The M&E system will help to track progress and demonstrate the impact of the project. It will assist in the process of project decision making by providing the parameters to support policy formulation and planning for both the existing and new protected areas. Monitoring procedures will be devised, principally, as a management tool but they will also record the progress of project activities. This will facilitate better selection, planning and management of areas for future protection. The improved sustainable management

practices to promote biodiversity and project objectives will be monitored and feedback will be given to management and all involved ministries. Project actions, expenditures and progress towards identified objectives will be monitored by the implementing agencies and reported in a quarterly (and annual) report so that appropriate action can be taken. A focal point for M&E will be identified in each Entity to co-ordinate activities. An estimated M&E budget of US \$200,000. makes provision for a series of case studies that will focus on particular topics of interest to management, planners and policy makers. In addition, the project will support the adaptation and use of the “Protected Areas Management Effectiveness (PAME) Tracking Tool”. This tool, developed by the World Bank/WWF Alliance for Forest Conservation and Sustainable Use², would help in assisting the tracking and monitoring of management effectiveness in individual protected areas. The tracking tool, however, would not be expected to replace more thorough methods of assessments, should they be identified as necessary.

Staffing and organization: The project coordination team in each Entity will be accountable for the implementation of M&E. Experience in the FDCP has indicated that the work load of the Director is such that additionally it is not possible to fulfill the demands of even a limited M&E program. Focal Points for FDCP have been nominated by the Ministers in charge of Forestry and in their first year they are supported by an International TA. It would be possible to extend the workload of the present Focal Points to cover the M&E program of this Protected Area Project. A budget has been prepared for M&E to include the operational costs of two Focal Points – no salary has been included. To ensure that the concepts of M&E are well understood, and to more clearly formulate the methodology, support will be provided by a M&E expert. The TA (which could be either local or international) would be responsible for establishing the framework for M&E and for training the managers in the associated principles and methodology.

4. Sustainability and Replicability

Sustainability: The project is designed to achieve financial, institutional, technical, environmental and social sustainability. The Bosnian government provides budget support for biodiversity conservation with additional revenues obtained from timber harvesting. Although budgetary support is limited and primarily directed to cover salaries and operating costs, it represents a stable source of financing. Under a new legal definition of PAs (now established as “legal bodies under public law”) PAs will be able to access additional government budget revenues, in particular for capital improvements, improving their financial sustainability in the near and future term.

The IDA-supported FDCP is financing a study on fiscal sustainability of PA management that is currently undergoing. The study will provide PA authorities with a broad ‘menu’ of options for improving the financial aspects of their operations. The GEF-funded FMPAP will assist the PA authorities to incorporate the appropriate options from this menu into their operations thus implementing some of the results of the study. More specifically, the development of management plans will include the most appropriate options for revenue generation. It should be noted that not all financing options will be appropriate in all places. For example, the Janj and Lom forest preserves will rely largely on government budget support, because they are strict preserves, and hence such options as entry fees, or other tourist fees, are not available. .On the

² Reporting Progress in Protected Areas – A site Level Management Effectiveness’ Tracking Tool, 2003

other hand, both of the proposed new National Parks (Una and the Igman Mountain complex) offer outstanding tourism opportunities, and are in fact already widely visited, particularly Igman. It is reasonable to assume that demand for the services in these parks will be sufficient to provide critical financial contributions to their long-term operations. Finally, the project will promote financial sustainability by supporting (eco-) tourism programs in protected areas where appropriate And by helping the SGP beneficiaries with business planning advice, market research, and links to other tourism/rural development initiatives.

The project will achieve technical, institutional and implementation sustainability by building on results achieved under the Bank’s two forest sector projects and by applying all Bank fiduciary, social and environmental safeguards..

Social sustainability will be achieved by including relevant stakeholders in developing a country-wide approach towards the expansion of the network of protected areas, by incorporating community needs into PA and landscape management approaches and by building awareness on the benefits of mainstreaming biodiversity, through the SGP.

Replicability: Replicability is primarily oriented towards the transfer of good PA management practice from implementation of new techniques in existing PAs, to new PAs, both within the FMPAP plan, and in future protected areas within the country. Replicability will be enhanced through concerted public communications campaign, and related marketing of BiH’s protected areas. In total, approximately US \$300,000 is directly budgeted to support these activities. This includes, *inter alia*: funding for peer-to-peer workshops between PA professionals, especially between current PA managers and new management teams being formed for the new PAs (apart from the dedicated training budget in Component 2); organization of seminars in BiH with neighboring countries, in particular Croatia, Bulgaria, and Serbia and Montenegro, to share experiences and gain best practice knowledge from the region; membership in regional and international protected area organizations (such as EuroParks); and travel to relevant conferences; and establishment of a more robust Internet presence, with important links to the BiH national tourism bureau;. Also, the SGP will offer opportunities to replicate small-scale rural development initiatives anywhere in the country. Finally, the Project will leverage the opportunities provided by a Balkan ecosystems initiative under consideration by the Italian Government, which will also facilitate cross-boundary sharing of experience.

5. Critical risks and possible controversial aspects

Risk	Risk Rating	Risk Mitigation Measure
Insufficient government commitment to adopt and implement required PA regulations as well as provide the necessary budget allocation	M	Project addresses State and Entity priorities set forth in the MDTs as well as the NEAP Adoption of recommendations from the financial sustainability study
Influential groups resist the establishment of protected areas and substantive reforms	S	Project preparation used participatory approaches to achieve broad stakeholder

in management of sites at Entity and cantonal levels		agreement and political buy-in
Inadequate local commitment to specific ecosystem-based land use management	M	Local stakeholders will have access to financial incentive to change unsustainable management practices
Protected areas selected do not materialize due to political interference.	M	Additional alternative protected areas feasibility studies are funded. Major investments done early in project implementation.
Strong resistance against extension of current PA borders	M	Project will develop different options of increasing area under formal protection (multiple protection categories within one PA, joint management approaches, etc.)
Implementing agencies may be unable to attract and retain qualified staff.	M	Project will provide training and career development benefits.
Overall Risk Rating	M	

Risk Rating - H (High Risk), S (Substantial Risk), M (Modest Risk), N (Negligible or Low Risk)

No issues have been identified that might be controversial or pose reputational risks for the Bank.

6. Loan/credit conditions and covenants

No significant, non-standard conditions and covenants are envisioned for project effectiveness or implementation. General conditions of effectiveness would include: (i) that the recipient has adopted the Operational Manual agreed with the Bank, (ii) that the Implementation arrangements have been established in a form and substance satisfactory to the Bank and that project coordinators have been appointed; (iii) that the Memorandum of Understanding for project implementation has been signed between the Entity Ministries in charge of Environment and Physical Planning, as well as Agriculture, Water Management and Forestry (four Ministries).

D. APPRAISAL SUMMARY

1. Economic and financial analyses

Economic. The project seeks the support of co-financing to enable ex ante pre, mid-term and ex post evaluation studies of PA viability and alternate income options. Since technical grants do not require a detailed economic analysis, thus this section only estimates incremental costs and evaluates environmental benefits in qualitative terms.

The goal of the project is to assist with biodiversity governance. Strategies for creation / expansion of protected areas, improved harvest management and for sustainable and alternative revenue generation are the expected economic benefits.

Through the expansion of protected areas covered and shareholder capacity enhancement activities, the project will generate significant mutual economic and environmental benefits by:

(i) creating the opportunity for creating jobs from better utilization of non-timber values of these forests, particularly from tourism and recreation, including hunting, gathering of berries, mushrooms and herbs; (ii) securing conservation of biodiversity in internationally important critical forest habitats including HCVEs; and (iii) conservation and improved management of globally significant endemic biodiversity and landscape values of sensitive ecosystems.

The incremental costs are for those activities that achieve country and regional benefits by (i) supporting protected areas planning; (ii) establishing PA management and building public awareness of biodiversity conservation and IUCN categories in the region; and (iii) increased national capacity to manage the protected areas' natural resources sustainability and conserve their globally important biodiversity. The GEF assistance will help to mainstream biodiversity conservation in landscapes where the primary emphasis is on economic uses, thus this project emphasizes all IUCN categories.

Finally, this project will provide small grants to stimulate local enterprise and to enable new revenue sources. The result will be improved sustainable revenue generation through improved management, i.e. harvest, operational activities; and the utilization of the area in alternative means such as tourism. Therefore, the social and economic impact of the project activities is expected to be positive including the generation of employment in rural areas.

Financial. Due to the government budget constraints, the proposed biodiversity conservation activities could not be implemented without GEF support. Nevertheless, while project protected areas will strive to generate a greater contribution to their annual budget from park activities in the long term, experiences from other parts of the world show that self-financing cannot always be expected. As a result, and assuming the Government's commitment to increase the area under formal protection and secure sustainable management, future budget provisions need to be made which will impact the financial plans at different levels. Financial benefits will come from increased tax revenues generated by tourism activities and more broadly from the watersheds (and ecosystems) that they protect.

Project expenditures on the integrated components will generate global, BiH and local benefits with non-recoverable incremental costs. The GEF project aims to generate strategies for long term sustainability. Finally, the project does not include any budget to purchase private land. The project is designed to address concerns of financial sustainability of the protected areas by enhancing the PA management effectiveness and implementing some of the financing strategies for the PA system developed under the IDA-supported FDCP including increasing the tourism capacity . BiH has considerable experience in attracting significant number of tourists to its protected areas, and deriving limited revenues from user fees. The rebounding of tourist inflows to the country after a decline in the 1990s caused by the war provides opportunity to derive revenues from tourists to build on this experience in the NPs supported by the project. The project will fund promotion and marketing activities, and assist with introduction of a standardized visitor fee structure for individual NPs and associated protected areas.

To support protected area development and financial sustainability, the project would help finance investments in basic PA long-term infrastructure (establishment and maintenance of marked, safe hiking trails, visitor shelters and information centers) and development of related services (advertising campaigns, training of protected area staff to provide interpretation services

to visitors, informational materials for visitors) to promote tourism in the priority protected areas, as determined by feasibility studies and local participation. The project would benefit local communities by providing opportunities for obtaining new income from increased visitor use of the protected areas (e.g., through sale of food, room services, handicrafts, and employment of locals as park rangers or wildlife guides to visitors).

Financial projections assume completion of protected area infrastructure and the capacity to manage the protected areas and revenue from protected area visitors. Currently, infrastructure is missing and staff lacks the skills and other resources needed to ensure that visitor use of the protected areas occurs in a sustainable manner and is consistent with the protected areas' biodiversity conservation objectives. The project would build this capacity through TA and monitoring programs. During the project period, visitor use, and therefore revenues are projected to increase modestly, as the skills to ensure environmental sustainability of tourism are developed.

Fiscal Impact. Owing to the financial constraints of Government, every effort has been made to minimize the fiscal impact of this project on the national budget. The Government total contribution is estimated at US \$1 million or about 15% of project financing, and would come mainly in the form of providing office space, services like cadastre surveys and salaries, among others for PA rangers. The long-term fiscal impact of the project is likely to be positive.

The project's support to existing and would-be local enterprises in setting up and expanding environmentally friendly businesses in tourism services, farming and crafts production, will help expand the Government's tax base. To the extent employment is enhanced, fiscal expenditures for social protection may be less than would otherwise be the case. It is expected that spread over the project life, the fiscal impact of the project will be negligible. More revenues through ticket sales would be used to improve PA management.

2. Technical

The project is technically justified on the basis of the urgent need to address growing and potential threats to the globally significant biodiversity in the target region. This assessment is based on a Comprehensive Biodiversity Survey conducted as part of project preparation. The project seeks to mainstream biodiversity considerations into land-use management plans as well as sectoral management and economic development plans. The project components are aimed at addressing not just the immediate issues at hand but also to build capacity to deal with long term priority conservation issues while establishing linkages and technical partnerships with international organizations for regional trans-boundary conservation. The project also aims to strengthen the legislative and regulatory capacity for biodiversity conservation and build public awareness and support for biodiversity conservation. The project's activities are designed to expand the vision and capacity for protected areas management in BiH and implement the new mandate at target sites.

3. Fiduciary

Financial management. Responsibility for financial management of the project will rest with the MAWFs. The Bank conducted a financial management assessment of the ministries and confirmed that they satisfy the Bank's minimum financial management requirements. The MAWFs will put in place an adequate project financial management system that can provide, with reasonable assurance, accurate and timely information on the status of the project (PMRs)

as required by the Bank for PMR-Based Disbursements. During project negotiations, the recipient will confirm if it wishes to consider a move to PMR-based disbursements and if so, agreement will be reached on an action plan to develop further the project's financial management arrangements during the course of project implementation. For further details on FM arrangements, please see Annex 7.

Procurement. Taking into account the fact that the MAWFs in both entities are currently implementing several Bank projects, no procurement problems are envisaged. During implementation of the project, capacity already established in the two forest projects will be leveraged. It will be the responsibility of the project coordination teams within the MAWFs to show their efficiency and effectiveness in dealing with necessary procurement issues and procedures in coordination with the World Bank procurement staff. For the small grants program there will be a post review of grant awards. The contract procedures will follow ECA's Manual for Conducting Very Small Value Procurement under World Bank/IDA Small Grant, Loans and Credits, May 2004, on a direct contract following commercial practice as acceptable to the World Bank and GEF. Procurement will be applied based on the threshold by Procurement Method as determined for BiH.

Procurement plan. The Bank as approved the procurement plans for the activities carried out during the initial 18 months of project implementation. The procurement and consultant selection process plans can be updated every six months, and should reflect the actual need for implementation of project activities and improvement in institutional capacity. The procurement plans for each calendar year should be submitted to the Bank no later than January 30 of the respective year. The Operational Manual would contain standard bidding documents, and templates for requests for proposals, formats for reporting on procurement, forms of contract, timetables, guidelines for the elaboration of good Terms of References and other procurement related information.

4. Social

The total population living directly adjacent to the six proposed areas and depending on these areas for their livelihoods is estimated with about 20,000. The recently completed Social Assessment (SA) determined that, in general, this population supports the concept of biodiversity conservation through the protection of land and the objective to change the management practices, expand the area under protection, and promote tourism. Local stakeholders living in or around the proposed areas anticipate that they would benefit from an increase in the quality of natural resources, due to more sustainable land use planning and management, from tourism-related income and employment opportunities. In addition respondents have emphasized their expectations that activities to expand the protected area network would actively promote the revival of local communities, through improved infrastructure (roads, water, etc.), eco-tourism, and better opportunities for marketing agricultural and non-timber forest products.

As part of project preparation, substantial efforts have been made to engage stakeholders at all levels. The project has the full support of high-level policy-makers in the relevant ministries and PA authorities, in both entities; the areas proposed for inclusion were derived as the result of numerous meetings of this Working Group. To ensure effective stakeholder input in project design and future implementation, numerous public consultations were held in the Spring and

Summer of 2005, in conjunction with formal meetings of the Working Group. These consultations were critical in the Working Group's decision-making, and the broad public support for the Project, as discerned from the Social Assessment, is a positive sign for the future success of the PAs. Project design specifically foresees the SGP as an important mechanism to achieve this engagement. Additional opportunities, particularly in project monitoring, are still being designed, and will be completed prior to Appraisal.

Further, to mitigate any potential impacts of the project, a Stakeholder Impact Analysis, a Participation Plan, and a Process Framework, have been prepared. Consultations on these documents are completed for the Impact Analysis, and will be completed by end-May 2006 for the Participation Plan and Process Framework. These documents will be revised subsequent to the consultations, to ensure that community interests are properly accounted for in these key project tools.

With its social development objective of engaging with local communities and individuals in improving protection and sustainable use of biodiversity, the project supports the implementation of a methodology for participatory planning for protected areas (developed within the FDCP), which takes into account the interests and expectations of affected stakeholders.

Importantly, to help mitigate the potential impact of project activities that could result in involuntary restriction of access to resources and livelihood for inhabitants of some of the areas covered by the project, Project Component 3 comprises a Small Grants Program (as noted above and detailed in Annexes 4 and 17). Funding of local-level sub-projects through the SGP will provide direct incentives for stakeholders to engage in new practices for sustainable land use, which will aid biodiversity conservation.

5. Environment

The project is classified as Category B, whose potential adverse environmental impacts are few and site specific. The project is expected to have an overall positive environmental impact by conserving biodiversity and improving natural resource use. The project would improve management practices in the use zones of the protected area where they are currently unsustainable (grazing, timber harvesting). The benefits of improving natural resource management would include increased productivity of land, better protection against soil erosion, and more sustainable use of biological resources. These benefits are expected to be realized in the medium to long terms. In the short term, forests and pasture use in areas where they have been over-utilized would be reduced.

Issues covered in the environmental management plan are: (i) the small scale construction, and/or renovation/rehabilitation of protected area infrastructure (including administrative buildings, checkpoints, trails and tourism infrastructure with minor direct impacts on the environment; (ii) the increase in recreational use of the proposed PAs under the project will result in an increase in noise and disturbance to wildlife and could make the collection of waste necessary; and (iii) the close link with the FDCP will positively influence the management of forest resources in the Balkans and help make recommendations to better integrate biodiversity conservation into forest management planning as well as landscape level prioritization for protected and production areas based on ecosystem approaches.

6. Safeguard policies

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment (OP/BP/GP 4.01)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Natural Habitats (OP/BP 4.04)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Pest Management (OP 4.09)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Cultural Property (OPN 11.03 , being revised as OP 4.11)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Involuntary Resettlement (OP/BP 4.12)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Indigenous Peoples (OD 4.20 , being revised as OP 4.10)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Forests (OP/BP 4.36)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Safety of Dams (OP/BP 4.37)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Projects in Disputed Areas (OP/BP/GP 7.60)*	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Projects on International Waterways (OP/BP/GP 7.50)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

7. Policy Exceptions and Readiness

The proposed project does not require any exception from Bank policies.

* *By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas*

Annex 1: Country and Sector or Program Background
BOSNIA-HERZEGOVINA:
FOREST AND MOUNTAIN PROTECTED AREAS PROJECT

Bosnia and Herzegovina (BiH), with a land area of 51,000 km² and an estimated population of 3.5 million, is endowed with internationally recognized rich biodiversity assets. About 50% of the country is covered by forests and 25% by pastures. It is mostly hilly and mountainous, with only 5% of territory classified as plains, 24% as hills, 29% as Karst and 42% as mountains.

The main issue facing BiH is the challenge of balancing economic development of a post-conflict country with conservation of globally significant natural resources insufficiently protected. Currently only 0.55% of the territory formally protected (compared with a regional average of 7%). Accelerated economic development, including that of the forest and wood processing industry, in the absence of a strong national and local level capacity to protect natural resources could damage BiH's ability to preserve its biodiversity in the long term. In forest and mountainous ecosystems the government must cope with competing interests in dealing with the following obstacles: (i) insufficient capacity within institutions in charge of biodiversity protection at state, entity and local levels; (ii) lack of collaboration between institutions to sufficiently incorporate biodiversity conservation into traditional forestry activities as well as physical planning; (iii) lack of awareness regarding biodiversity conservation; and (iv) a tradition of limited public participation in the decision making processes.

Significance of BiH's Biodiversity. BiH is at a geographical cross-road and includes: 5 types of climate (continental, moderate continental, Mediterranean, modified Mediterranean, mountain), 3 regions (Alpine-Nordic, Euro-Siberian and Boreo-American, Mediterranean), several provinces (e.g., Adriatic, Illyrian, Mesian, Central-European, Dinaric), 6 landscape types (Mountain, Highland, Pannonian, Mediterranean highland, Supra-Mediterranean, Mediterranean) and a great variety of biotopes.

Its rich biodiversity includes over 5,000 confirmed taxa (species, subspecies, varieties) of vascular flora, which include one third of all Balkan endemic species and 450 of which are endemic to BiH only (especially on high mountains, glacial lakes, cliffs, dolomite substrata). For several taxonomic groups (e.g., lichens, mosses, algae, fungi, bacteria) comprehensive surveys do not exist but available data lead to believe these groups are also highly diverse. Its forest resources are among the richest in Europe with a wide variety of coniferous and deciduous species, corresponding to the different eco-geographical regions and an exceptionally high level of intra-species genetic biodiversity. The country also presents various centers where new subspecies originate and areas where relict species can still be found, as well as a great diversity of landraces, in particular horticultural products and fruit trees (e.g., cherry and walnut).

BiH is also important for ecological processes: Karstic processes are extensive and among the best examples worldwide; large blocks of forests, large enough to maintain ecological integrity; river dynamics; large carnivore dispersion between Central and South-East Europe. Among the important ecological functions are CO₂ sequestration by forests and the presence of keystone species (e.g., bear) which support distinct species assemblages.

Much less is known about fauna than flora: inventory were conducted only for some groups and have not been comprehensive (uniquely for Europe, BiH does not yet have official Red Lists). Thirty-two species of animals and plants found in BiH are on the 2002 IUCN Red List of threatened species (62 including extinct species. Large carnivores still roam in some parts of the country, an indication that here the food chain is still complete. Keystone species include bear, wolf and river otter. Interesting flagship species are bats (of which several are considered in vulnerable status).

At the *regional* scale, BiH covers three globally significant ecosystems identified by WWF's Global 200 program and adopted by the Biodiversity Strategy for the Bank's ECA Region: (i) the European-Mediterranean Montane Mixed Forests; (ii) Mediterranean Forests, Woodlands and Scrubs; as well as (iii) Balkan Rivers and Streams. These also include the Mediterranean Sea and the Karst ecosystem. At a *smaller* scale, BiH hosts globally important *sites* identified under different programs: Ramsar sites (e.g., Hutovo Blato which is also an important bird area); relatively undisturbed ('virgin') forests like Perućica (a UNESCO site), Janj and Lom.

Natural resources use. About 2 million people (58% of BiH's population) live in rural areas, and for them forest and mountain ecosystems are an important (and sometimes the only) source of subsistence, employment, energy and recreation. They are also a source of non-timber forest products (NTFP) including mushrooms, berries and herbs. Hunting, well organized in the past, has provided additional revenues, while the beauty of BiH's forest and mountain landscapes has, and can again, provide substantial job opportunities for local people from tourism. Those ecosystems also have important watershed protection values for much of the middle and lower Danube. Furthermore since BiH has quite a low rural population density, only 43 persons per square km, lower than any of the other Balkan countries, sound management of its "production landscape" values (forest and grassland management) can provide income for local people while at the same time its "non-use" values (from watershed protection and global ecosystem values) can be protected.

Protection of Natural Resources. Supported by the European Commission an environmental legal framework has been established to align with relevant EU directives and international conventions. Aside from a Framework Law on Environmental protection at state level, different entity laws have been enacted focusing on (a) the protection of water, air, as well as nature and (b) the management of solid waste.

In Republika Srpska (RS) the Law on the Protection of Nature was adopted in July 2002. It stipulates the revitalization, protection, preservation and sustainable development of landscapes, ecosystems, plants, animals as well as functions of nature that are part of the environment. A similar law has been enacted in the Federation of Bosnia and Herzegovina (FBiH). The protection of forest biodiversity is also regulated by the applicable Law on Forests, as well as by laws on hunting and fishing. In addition it is stipulated in FBiH and RS Constitutions that forests and forestland are public goods which enjoy the special care and protection of the entities and state.

According to the Entity Laws on Nature Protection, four types of protected areas (protected areas) are defined, which reflect only loosely the IUCN classification system: (a) Nature

Protection Areas; (b) National Parks; (c) Natural Monuments; and (d) Landscape Protection Areas. In both entities the Ministries in charge of Environment have principal oversight for planning and management of protected areas under the first two categories, with the right to delegate competences to other institutions. In practice the management of those protected area is being carried out by specialized public enterprises. Management is based on a 10-year plan, with financing partly being provided from budget resources as well as through revenues generated by PA activities (tourism, grazing, gathering of NTFPs and limited timber harvesting). PA directors are appointed by and report to three Ministries (Environment, Forestry, as well as Education/Cultural Heritage). Inspection and control rests with the Entity forest inspectorates. Responsibilities for Natural Monuments; and Landscape Protection Areas rest with other institutions (including Ministries in charge of Water Management and Forestry, Municipalities, etc.). In cases where these protected areas are located in public forests, the local State Forest Enterprises are responsible for management and protection in other to maintain the conservation status.

Threats. The war, between 1992 and 1995, as well as subsequent unregulated development, resulted in heavy damage at all levels (according to current estimates, direct war damage to forests and associated sectors amounts to some US\$2 billion). In addition it is estimated that a minimum of 200,000 hectares of rural production areas (agriculture, forests, etc.) are still contaminated by landmines. Current threats to BiH's outstanding biodiversity include non-sustainable land use practices and the paucity of areas critical for conservation under any kind of formal protection. Poverty and a generally depressed economy as well as landmines have led to overexploitation of natural resources in some areas, and to abandonment of semi-natural landscapes in others. The scarcity of comprehensive land-use planning, as well as limited capacity of local institutions and lack of awareness of conservation issues, makes it difficult to take into account critical ecosystems to protect or to manage according to biodiversity concerns. Civil society organizations related to biodiversity are still being developed. There is relatively little experience with participatory approaches to sustainable landscape management.

Government Strategy. Government has recognized the need to address the problems facing the critical forest and mountain ecosystems employing a comprehensive approach, with the objective to secure these areas in the long term. Over the past three years together concerned stakeholders the Government has been active in shaping its strategy towards poverty reduction with the inclusion of environmental issues in its reform agenda. This project addresses some of the high priorities described in the Medium Term Development Strategy (MTDS), such as: (i) balanced management of biological, (ii) geological and landscape diversity; (iii) 15-20% of territory under protection regime; (iv) sustainable management of endemic and refuge centers; (v) sustainable development of rural areas; (vi) special-purpose protected areas in forests. In addition, these topics are closely linked with and incorporated into the NEAP, which was published in Spring 2003. The NEAP, particularly in its thematic document no. 8 (Biodiversity and Protection of Natural and Cultural Heritage), recognizes the importance of biodiversity, natural and cultural heritage, the threats and the need for expanding the area for conservation and protection to 15-20% of the land area. The project also addresses the requirements of the Convention on Biological Diversity (esp. Art. 7-8, 10-13, 17). It contributes to the implementation of the BiH Physical Plan for 1981-2000 (expired, but still generally valid and not yet replaced by a new vision).

Annex 2: Major Related Projects Financed by the Bank and/or other Agencies

**BOSNIA-HERZEGOVINA:
FOREST AND MOUNTAIN PROTECTED AREAS PROJECT**

Sector Issue	Project	Latest Supervision (PSR) Ratings (Bank financed projects only)	
<u>Bank-financed</u>		Implementation Progress (IP)	Development Objective (DO)
Forestry	Forest Development and Conservation Project	U	S
Agriculture	Small-Scale Commercial Agricultural Development Project	S	S
<u>GEF financed</u>	Integrated Ecosystem Management of Neretva and Trebisnjica River Basins	planned	
<u>Other development agencies</u>			
USAID	LAMP (Linking Agricultural Markets to Producers)	ongoing	
	Cluster Competitiveness Activity (Wood & Tourism)	ongoing	
UNDP	Regeneration of the Forestry and Wood-Processing Cluster in the Srebrenica Region	ongoing	

Annex 3: Results Framework and Monitoring

BOSNIA-HERZEGOVINA: FOREST AND MOUNTAIN PROTECTED AREAS PROJECT

Results Framework

PDO	Outcome Indicators	Use of Outcome Information
<p>To strengthen the institutional and technical capacity for sustainable protected area management and expand the national network of forest and mountain protected areas.</p> <p>The project global environmental objective is to conserve globally significant biodiversity in critical forests and mountain ecosystems of BiH.</p>	<p>Increase in area under formal protection (using all IUCN categories)</p> <p>Increase in portion of recurrent management costs covered by PA income</p> <p>Number of PAs with new ecosystem approaches such as PA zoning, joint management, etc. implemented</p> <p>Increase in management effectiveness of PAs</p> <p>Increase in buffer zone areas supporting sustainable natural resource use and biodiversity conservation</p>	<p>Use project results for replication in other sites</p> <p>Evaluation of use of available budget resources to encourage more effective use of funds and/or determine revisions in PA financing strategies</p>

Intermediate Results One per Component	Results Indicators for Each Component	Use of Results Monitoring
<p>Component One: Existing PA operations improved and new PA established and capitalized</p>	<p>Legal designation of new PA status achieved</p> <p>Number of PA with management plans incorporating ecosystem approaches in land-use practices for forest and mountain protected areas adopted</p> <p>Number of PA management plans and under effective implementation</p> <p>Increase in number of PA visitors</p>	<p>Y01 and Y02 evaluate progress in establishment of new PAs; re-evaluate site selection if formal declaration is not achieved</p> <p>Y03 evaluate results of management plan implementation and initiate revisions if management not according to plan</p> <p>Y03 initiation of feasibility studies for additional priority sites</p>

<p>Component Two: Planning, management and leadership skills of institutions responsible for biodiversity conservation and sustainable land use increased</p>	<p>Number of PA staff that have completed training program</p> <p>Number of PA using the Protected Area Management Tracking Tool</p> <p>Number of public awareness initiatives for biodiversity conservation</p>	<p>Y02 revise training program and methodology and make necessary adjustments</p> <p>PAME Tracking Tool to be refined as needed, based on experience with implementation</p>
<p>Component Three: Environmentally and economically sustainable natural resource use and tourism development in protected areas and buffer zones promoted</p>	<p>SGP Eco-Activity Facility established and operational</p> <p>Increase in number of grant awarded to local entrepreneurs</p> <p>Number of proposals eligible for SGP funding that address biodiversity conservation</p>	<p>Y02 and Y03 evaluation of procedures and operational manual; revision if needed</p> <p>Y02 and Y03 evaluation of training programs for beneficiaries - revise training if quality of proposals, and/or implementation progress needs improvement</p>

Arrangements for results monitoring

Outcome Indicators	Baseline	Target Values				Data Collection and Reporting		
		YR1	YR2	YR3	YR4 (end of project)	Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
Increase in area under formal protection (using all IUCN categories)	0.55% formally protected	1.5% (addition of the Una River)	Approx. 3% with addition of Igman complex, Janj, and Lom		3% or approx. 150,000 ha of which approx. 50,000 IUCN categories I and VI, and the remaining mostly Category II National Park, and Category V protected landscape)	As areas are formally declared	Government reports	Entity Project teams
Increase in portion of recurrent management costs covered by PA income	<10% from budget allocation ,30% from fee (existing PA) - (new PA)	10%	12%	13%	Average 15%	yearly	PA financial reporting	Pa authorities, project teams, Bank
		30%	32%	35%	Average 40% of expenses covered by entry/service fees			
		15%	18%	20%	Average 25% of expenses covered by entry/service fees			
Number of PA with new ecosystem approaches such as PA zoning, joint management, etc. implemented		, 1 (Sutjeska)	2	3	At least 3 parks, including Sutjeska, fully implement new ecosystem approaches	As management plans are designed	Working group reports	PA authorities
Increase in management effectiveness of PAs	Baseline established at CEO endorsement (PAME Tracking Tool (TT) available at project start)	Indicator monitored in 4 PAs	Indicator monitored in all PAs	Indicator monitored in all PAs	Indicator monitored in all PAs	yearly	PA reporting	Pa authorities, project teams, Bank
Increase in buffer zone areas supporting sustainable natural resource use and biodiversity conservation		20,000 ha	50,000 ha	100,000	200,000 ha around existing and new PAs	Quarterly reports	SGP grant reviews and progress report PAME Tracking Tool	EAF administrators, PA authorities, Entity project teams, Bank

Results Indicators for Each Component	Baseline	YR1	YR2	YR3	YR4 (end of project)	Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
Component 1: Legal designation of new PA status legally achieved		1 new PA designated	1 new PA designated		2 new PAs legally designated	Yearly	Legal documents on establishment	Entity Min. of Environment, Physical Planning
Number of PA with management plans incorporating ecosystem approaches in land-use practices for forest and mountain protected areas adopted	1 PA	1 PA	2 PA	2 PA	All PAs adopt new management plans	Yearly	PA reporting	PA authorities, Ministries of Environment, project teams, Bank
Number of PA management plans and under effective implementation		1	1	2	Implementation of Management plans started in all PAs	Yearly	PA reporting, PAME Tracking Tool	PA authorities, project teams, Bank
Increase in number of PA visitors		2%	4%	7%	10%	Yearly	PA reporting	PA authorities
Component Two : Number of PA staff that have completed appropriate training programs	Current PA staff skills at varying levels	25% of staff complete training programs	50%	75%	All appropriate staff targeted for training by the project complete relevant coursework	Yearly	Yearly training program designs	Project training coordinators, Bank, PA authorities
Number of PA using the Protected Area Management Tracking Tool		4 PA use TT	All PAs use TT	All PAs use TT	All PAs use TT	yearly	PA reporting	PA authorities, project teams, Bank
Number of public awareness initiatives for biodiversity conservation		2	4	6	Comprehensive PA campaign completed, for all PAs individually as well as national PR on BiH's PAs	Yearly	Project monitoring reports	PA authorities, project teams, Bank
Component Three: SGP Eco-Activity Facility established and operational		EAF offices operational	EAF offices operational	EAF offices operational	EAF offices operational	Yearly	EAF management reports	EAF management, project teams, PA authorities, Bank
Increase in number of grant awarded to local entrepreneurs	N/A	5 grants awarded.	10 new grants awarded.	15 new grants awarded.	End of project. Total of 40-50 grants	Quarterly reports	grant reviews; Tracking Tool; Visitor feedback	EAF administrators, PA authorities, Entity project teams, Bank
Number of proposals eligible for SGP funding that address biodiversity conservation		30%	50%	70%	70%	Following each Grant tranche	Public reports on Grant recipients	EAF management, Bank, Ministries of Environment

Annex 4: Detailed Project Description

BOSNIA-HERZEGOVINA: FOREST AND MOUNTAIN PROTECTED AREAS PROJECT

The project will assist the protected area management authorities throughout Bosnia-Herzegovina to develop new operational approaches for sustainable land management and conservation in six priority sites identified through a participatory process. The Project will strengthen institutional and technical capacity and foster public support at all levels (local, Entity, State) to promote replication of best practices with the goal to assist in establishing a countrywide network of protected areas. The activities financed by the project will range from developing and implementing management plans in existing protected areas, and analyzing options for their expansion to establishing new protected areas. At the same time the project will build and improve capacity for PA managers and institutions, as well as civil society in the areas concerned, to achieve sustainability in the long term. In order to achieve local support, the project will provide incentives to either actively engage in conservation and sustainable land management or compensate for losses occurring due to necessary changes in management approaches and methodologies.

The Table at the beginning of Annex 4b shows the proposed six priority protected areas as well as possible alternatives, while the text of Annex 4b offers substantial technical detail about the areas.

Component 1: Physical Improvement of Existing Protected Areas, and Establishment and Operationalization of Critical New Priority Areas (total US \$2.76 million, of which US \$1.4 million is GEF). The project will finance development and implementation of new management plans, emphasizing ecosystem approaches, and approaches for participatory land use planning; new infrastructure, and limited small-scale building rehabilitation, necessary for improving the operations of existing PAs, and for capitalizing the newly created protected areas. Infrastructure is generally “soft”, e.g. trail improvements, new trail creation, signage, resting places, park boundary markings, etc. In addition, the project will finance some limited goods for park operations, as well as technical assistance. The dedicated training program is contained in Component 2.

In the first year of implementation, the project will focus its support on the development and implementation of land use management plans for the two existing National Parks (NPs) Sutjeska and Kozara, as well as for the Janj and Lom Forest reserves, and the Una River; new management plans for Igman will likely begin near the end of Project Year 1. At the same time the project will undertake feasibility studies regarding the potential to expand these already existing protected areas. Taking into account potential disagreement of expanding the current borders of the PAs, the project will work with all stakeholders concerned to develop and implement different models of PA expansion and management (e.g. PA zoning, joint management of adjacent areas, etc.).

The emphasis on establishment of new areas directly supports the ongoing efforts at the Entity level to bring additional areas under formal protection. In total, approximately 150,000 new

hectares are to enter formal protection status. These areas will be a mix of national park and protected landscapes, along with some areas managed as strict nature reserves.

The proposed new protected areas in the FBiH -- Igman/Bjelasnica/Treskavica, (hereinafter referred to as the Igman mountain complex), and Una River -- are both declared as National Areas of Special Interest. The Una River has a completed Feasibility Study, funded by the Government, which confirms the uniqueness of the area, and the very strong public demand for formal protection. Broad public support has also been confirmed during the social surveys undertaken during project preparation. Project investments are based on the recommendations of the Feasibility Study.

The Igman mountain complex, which was the site of the 1984 Winter Olympics, and has a tremendous potential as a demonstration of wise multiple use, has a new Feasibility Study underway, due to be completed by end-Summer 2006. Project investment priorities are based on previous feasibility studies, and modest expectations of basic levels of infrastructure which will be required to capitalize the park. There is broad consensus on establishing this area as a national park.

Both Una and the Igman mountain complex will be supported with development of site specific regulations, and preparation and subsequent operationalization of new management plans. Investments vary, but as noted above, comprise largely “soft” infrastructure, limited goods (IT and communications equipment), and targeted technical assistance.

For all areas the project will undertake baseline ecological surveys to assess biodiversity and resource use (timber harvesting, livestock carrying capacity, hunting, NTFP collection) and put in place a biodiversity monitoring system at site, Entity and State levels. The site specific activities undertaken under this component will be assisted by the development and operationalization of a strategy for establishing an effective protected area system (financed under the second component). This will also foster building public support for sustainable land use management approaches to in high conservation value forest and mountain ecosystems.

Component 2: Strengthening of Capacity at Local, Entity and State Levels for Biodiversity Conservation and Sustainable Land Use Practices (total US \$2.72 million, of which US \$1.6 million is GEF). The project will finance capacity building, learning and skill development at local, Entity and State levels in order to strengthen the institutions responsible for planning, establishment and management of protected areas throughout BiH and to ensure the sustainability of the expanded protected area network. Training will particularly focus on building new competencies for multiple use management of protected areas of all categories in BiH. Through targeted collaboration with the forest enterprises active in and around existing and proposed PAs, the project will help these enterprises to update their management plans to ensure that biodiversity conservation is promoted at the level of the ecosystem, rather than the forest management units.

At Entity and State level the project will finance capacity building for the Ministries in charge of protected area management and land use planning (including the National Biodiversity Committee), so that these institutions would be capable to provide leadership for biodiversity

conservation. This will include: (i) assistance with implementing parts of the UNEP-funded strategy for the establishment of an effective system of protected areas (and therefore partially fulfilling the criteria outlined in the EU directive for the Natura 2000 network); (ii) creating an outreach program to raise public awareness for biodiversity protection and conservation; (iii) establishing a biodiversity monitoring system at PA level; and (iv) strengthening cross-border initiatives to conserve high conservation value ecosystems in the Balkans, through targeted training with neighboring PA authorities.

At the local level the project will finance professional development in three areas: (i) protected area training (e.g. courses in forest and range management, visitor management and interpretation); (ii) ranger training, including patrolling and enforcement, working with local communities and user groups to build understanding and support for PAs; and (iii) business planning, which will include assistance in marketing, financial management.

Additional support would be aimed at building the institutional capacity to deepen the understanding for the use of different EU funding programs and instruments to finance nature conservation (including the Natura 2000 network) once BiH will become eligible to take advantage of these funds.

Since project implementation follows the principle of subsidiarity, it will be undertaken at the site level (by National Park Enterprises or Forest Enterprises). Oversight and implementation support (e.g. procurement and financial management) of all project activities in accordance with agreed monitorable indicators will be responsibility of project coordination teams in the Entity Ministries of Environment. To ensure close collaboration with all relevant governmental decision-makers, including Entity, canton, and state level institutions, a project steering group (PSG) will be established. The PSG will comprise, *inter alia*, members from the Entity Ministries in charge of Environment, Physical Planning, and Agriculture and Forestry, as well as the Ministry of Foreign Trade and Economic Relations at the state level (as it is the GEF focal point). The steering group will also play a liaison role to the state level Biodiversity Committee to (a) obtain technical guidance and (b) guarantee civil society engagement. The project would support the establishment and operation of the small grants program, promoted and administered by an “Eco-Activity Facility” comprised of a group of individual consultants in both entities.

M&E. The project will support the adaptation and use of the “Protected Areas Management Effectiveness (PAME) Tracking Tool”. This tool, developed by the World Bank/WWF Alliance for Forest Conservation and Sustainable Use³, would help in assisting the tracking and monitoring of management effectiveness in individual protected areas. The tracking tool, however, would not be expected to replace more thorough methods of assessments, should they be identified as necessary. In addition to the biodiversity monitoring system, the project will establish a Monitoring and Evaluation (M&E) system (developed during project preparation), which will help to track progress and demonstrate the impact of the project. M&E will assist in the process of project decision making by providing the parameters to support policy formulation and planning for both the existing and new protected areas. Monitoring procedures will be devised, principally, as a management tool but they will also record the progress of project activities. This will facilitate better selection, planning and management of areas for future

³ Reporting Progress in Protected Areas – A site Level Management Effectiveness’ Tracking Tool, 2003

protection. The improved sustainable management practices to promote biodiversity and project objectives will be monitored and feedback will be given to management and all involved ministries. Project actions, expenditures and progress towards identified objectives will be monitored by the implementing agencies and reported in a quarterly (and annual) report so that appropriate action can be taken. A focal point for M&E will be identified in each Entity to coordinate activities. The M&E budget makes provision for a series of case studies that will focus on particular topics of interest to management, planners and policy makers.

Component 3: Generation of Alternative Rural Livelihood Opportunities through Wise Multiple-use of Protected Areas (total US \$1.42 million, of which US \$0.5 million is GEF).

The Project will provide financing to establish and operate a Small Grants Program (SGP) in order to involve stakeholders living in and around protected areas in small-scale rural development activities which directly or indirectly contribute to biodiversity conservation. The underlying concept of the SGP is to provide incentives for stakeholders to change current land use practices that have an adverse impact on the natural resource base in or adjacent to the protected areas. Sub-projects funded under the SGP will be targeted towards developing new livelihood options which promote biodiversity conservation in the protected areas and their buffer zones.

The concept of providing financial assistance to local stakeholders through a small grant scheme is common EU practice in its pre-accession assistance instruments (IPA) such as LIFE-Nature or the Special Action Program for Pre-Accession Aid for Agriculture and Rural Development (SAPARD). Measures funded under these financing mechanisms include so called “agri-environmental” activities, which promote agricultural production practices that are compatible with environmental protection and landscape conservation.

Experiences from small grants programs show that they are a useful mechanism for engaging local communities, NGOs and other stakeholders, in particular in reaching out to a broader community and encouraging participation and support for the protected areas or conservation effort. They can also encourage better working relationships, e.g. between PA staff and local communities and provide resources for targeting particular groups, such as women and youth. Small grants to support cultural and educational events also increase goodwill and strengthen links between the PA and its neighbors. In addition, small grants can represent one of the main links between the park’s conservation objectives and economic opportunities for the local communities.

The SGP will be administered by an “Eco-Activity Facility”, an inter-entity group of individual consultants contracted by the project and overseen by the project steering group. The selection of the consultants would be based on their experience in biodiversity conservation, sustainable land use planning and management as well as poverty reduction. The eco-activity facility will (i) invite proposals, (ii) build understanding of the objectives and criteria for selection and administration; (iii) review proposals and provide recommendations to the small grants committee as final approver of the grants; (iv) monitor the implementation of individual grants; (v) report on the results of the grant competition; and (vi) report on grant progress and the dissemination of lessons learned.

The small grants program will provide grants to promote successful environmentally sound economic activities which are a precondition for sustainable land use planning and protected area management. The design of the program follows similar (and well established) approaches in Croatia, Georgia and Romania. Grants will be given to local communities and NGOs that own or use land in or adjacent existing protected areas. The underlying concept is to provide incentives for stakeholders to change current land use practices that have an adverse impact on livelihoods and the natural resource base in or adjacent to the protected areas. In addition the program will offset potential income losses and access restrictions. Individual grants would be made on a competitive basis, operating under transparent criteria and procedures (outlined in a publicly available Operational Manual). The eligibility criteria for individual grant projects would include direct contribution to biodiversity conservation and community development as well as a minimum (10%) contribution of the beneficiary to the project budget, which can be in-kind but would clearly show project ownership. Project activities must be within the protected areas and their defined buffer zones, eligible beneficiaries would be individuals, local communities (e.g. village councils, traditional associations, farmer's organizations, women's groups, etc.), private entrepreneurs and companies, NGOs that own or use land in the defined areas.

Annex 4b: Detailed Description of the selected PAs and some Alternatives

BOSNIA-HERZEGOVINA: FOREST AND MOUNTAIN PROTECTED AREAS PROJECT

Bosnia and Herzegovina: Located on the Balkan Peninsula in South-Eastern Europe, the territory of Bosnia and Herzegovina covers a land area of 51,209 km². The country is bounded to the north, west and southwest by Croatia (border length 932 km) and to the east and southeast by Serbia and Montenegro (total border length 606 km, of which 249 km with Montenegro and 357 km with Serbia). The country also has a 13 km long coastline along the Adriatic Sea.

The Dinaric Alps traverse the country from its western border with Croatia to the southeast creating two major watersheds, the Black Sea (75.7% of the territory) and the Adriatic Sea (24.3%). 62% of the land area of BiH is more than 700 m above sea level. The highest peak being Mt. Maglic which rises to 2,387 m and is located on the border with Serbia and Montenegro. The country also has 10 other mountain peaks higher than 2,000 m and 40 peaks between 1,500 m and 2,000 m. The mountains are intersected by numerous valleys and gorges, which offer an important refuge for biodiversity, especially glacial relicts.

Six main broadscale landscape types are identified. These are: (i) Mediterranean landscapes (Neum-Klek), (ii) supra-Mediterranean landscapes (lower flow of Neretva, southeast and southwest Herzegovina), (iii) Mediterranean highland landscapes (eastern and western upper Herzegovina), (iv) highland (hill) landscapes (central, eastern and western Bosnia), (v) mountain landscapes, and (vi) Pannonian landscapes (north Bosnia – Posavina). All of these landscape types include a great diversity of sub-types and kinds, and whilst many of the landscapes have been affected, and in some instances degraded by anthropogenic actions, in many instances large portions of the natural ecosystems remain in pristine natural or semi-natural form.

Approximately 50% of the country is classed as forest land. However, more than half the forest is classed as low forest or shrub land. State ownership of forest land is 81.3% whilst 18.7% is in private hands. Most of the low forests are in the lower oak region. The low forest and shrub land is also more prevalent in the karstic and sub-Mediterranean regions and whilst its production value is low it is important for biodiversity since it shelters a wide range of endemic species.

Table: Overview of Existing and Potential Protected Areas

Protected Area	Size (ha)	Biodiversity value	Threats	Activities (by GEF and/or associated IDA project)	PA Status	
					Existing	Expansion/proposed
Sutjeska	17,500	<ul style="list-style-type: none"> • 2,600 species of vascular plants (supplemented by about 100 species of edible fungi). • Mountain pastures, meadows; • 1,400 ha of preserved pristine forest (Perucica forest (UNESCO site)); 	<ul style="list-style-type: none"> • unsustainable exploitation of natural resources (including illegal extraction of firewood) 	<ul style="list-style-type: none"> • Implementation of multi purpose management plan (including biodiversity conservation, forestry management, cultural heritage conservation, tourism and socio-economic development.) • Support to capacity building 	X	Potential expansion towards Tara canyon
Kozara	3,400	<ul style="list-style-type: none"> • high number of endemic species (in particular medicinal plants); 		<ul style="list-style-type: none"> • Development/ implementation of multipurpose management plan • Support to capacity building • Promotion of eco-tourism 	X	Expansion possible
Igman-Bjelsnica	120,000	<ul style="list-style-type: none"> • About 3,000 plant species present representing 66% of all plant species recorded in BiH ; • Key transition between vegetation zones • 32 globally-threatened species; • montane/glacial relict species (of which 194 are endemic to BiH); • 50 ha of remnant virgin Montane mixed forests; • due to a wide range of karstic features (including limestone pavements and pinnacles) high number of bat species 	<ul style="list-style-type: none"> • unsustainable exploitation of natural resources, • unregulated tourist development, and waste dumping; • land mines 	<ul style="list-style-type: none"> • Piloting of procedure for a comprehensive consultation process for PA establishment • EA for proposed area, development of EMP • Declaration of NP • Develop/implemment management plan • Capacity building; • INF development • Awareness campaigns • Promotion of Tourism 		Declared area of Special Interest by FBiH Parl. in November 2004; goal to declare a NP by 2006; Feasibil. Study underway

Prenj-Cvrsnica-Cabulja	99,500	<ul style="list-style-type: none"> • Presence of series of endemic and relict plant associations due to glacial processes; • Large extent of high plateau areas (with glacial lakes,) • Area proposed include parts of Neretva River Basin (one of the globally most endangered Karst Ecosystems) 	<ul style="list-style-type: none"> • unsustainable exploitation of natural resources, • unregulated tourist development, and waste dumping; 	<p>If identified as priority area:</p> <ul style="list-style-type: none"> • Awareness campaigns • Feasibility study and subsequently: <p>(a) Participatory consultation process (b) Declaration of PA (c) Development/implementation of mgmt. Plan (d) Capacity building</p>		X
Vranica	26,800	<ul style="list-style-type: none"> • High number of endemic and relict species associated with silicate and limestone ecosystems 	<ul style="list-style-type: none"> • unsustainable exploitation of natural resources (forests, non timber forest products, grazing, etc.) • land mines 	<p>If identified as priority area:</p> <ul style="list-style-type: none"> • Awareness campaigns • Feasibility study and subsequently: <p>(a) Participatory consultation process (b) Declaration of PA (c) Development/implementation of mgmt. Plan (d) Capacity building</p>		X
Zvijezda-Konjuh-Tajan	44,200	<ul style="list-style-type: none"> • Large extent of karst plateau areas with associated composition of species (watershed of Bosna river) 	<ul style="list-style-type: none"> • unsustainable exploitation of natural resources (forests, non timber forest products, grazing, etc.) • land mines 	<p>If identified as priority area:</p> <ul style="list-style-type: none"> • Awareness campaigns • Feasibility study and subsequently: <p>(a) Participatory consultation process (b) Declaration of PA (c) Development/implementation of mgmt. Plan (d) Capacity building</p>		X
Protected Area	Size (ha)	Biodiversity value	Threats	Activities (by GEF and/or associated IDA project)	Pa Status	
					Existing	proposed

Detailed Description of Proposed and Potential Alternate Areas

1. Igman-Bjelasnica-Treskavica-Visocica Protected Area

The proposed Igman-Bjelasnica-Visocica National Park is situated in central Bosnia and within the Federation of BiH at latitude 43°30'05" – 43°50'03" and longitude 17°58'12" – 18°24'33". It is located within the administrative boundaries of Sarajevo Canton and Herzegovina - Neretvanski Canton. The main entrance to the site is located 15 km South-West of Sarajevo. The area comprises three main mountain massifs (Igman, Bjelasnica, and Visocica) formed largely of Triassic limestone with dolomite to the west. The area lies between 495 m above sea level (Vrelo Bosne) and 2,067m (at the summit of Mt. Bjelasnica). The area is largely mountain plateau, with widespread karst features and some glacial phenomena. It is bordered and dissected by deeply incised river canyons including those of the Rivers Rakitnica and Neretva. The area proposed within this project will extend to approximately 85,000 ha and is located wholly within the boundary of the FBiH.

According to a study of European forest cover by UNEP-WCMC (2000) and CORINE II data five forests types occur on Igman-Bjelasnica-Visocica these are:

- F2 Mixed Oak-Ash forests (*Fraxinus excelsior*, *F. angustifolia*, *Quercus robur*, *Ulmus glabra*, *Quercus petraea*)
 - F3 Mixed Oak-Hornbeam forests (*Carpinus betulus*, *Quercus robur*, *Q. petraea*, *Tilia cordata*)
 - F5 Beech and mixed Beech forests (*Fagus sylvatica*, *F. moesiaca*, *Abies alba*)
 - K1 Pine forests and woodlands (*Pinus sylvestris*, *P. nigra*, *P. pinea*, *P. halepensis*, *P. brutia*, *P. pityusa*, *P. heldreichii*)
- C(DI) Dinarian Mountain Pine Scrub group

On a European scale, the Beech and mixed Beech forests (F5), and the mixed Oak-Hornbeam forests (F3) are still amongst the most extensive types despite having suffered the greatest absolute loss, which is also fairly high in proportional terms. They also have amongst the largest areas protected, but because of their large current areas, these proportions are low. Pine forests and woodlands (K1) are moderately extensive (although note that natural stands of *Pinus nigra* and *P. heldreichii* are fairly rare) and have undergone less loss, but they are also only moderately protected in absolute and percentage terms. Mixed Oak-Ash forests (F2) have undergone significant loss particularly in proportional terms (where only continental Willow alluvial forests (*Populus nigra*, *P. alba*, *Salix alba*) and Tamarisk alluvial scrub (*Tamarix ramosissima*) has suffered worse percentage loss) but the amount protected is still very low. Finally, Dinarian mountain Pine scrub (C(Di)) is naturally a very rare European habitat, which apparently has undergone no loss (although the area potentially afforested under this type is too difficult to be determined). Internationally only 24 km² is protected although because of its rarity, this is proportionally quite high (UNEP-WCMC 2000).

Located within the area are remnant virgin forest at Durmisvica amounting to 50 ha and areas of forest in Rakitnice Canyon and other areas with poor accessibility. Such virgin forests are rare in a European context and therefore of great value. The biological information base for the area is deficient with most available information centered on Igman and Bjelasnica Mountains and the

Rakitnica Canyon. Information for the wider area including Visocica is much less available. There is no large scale vegetation map available for the area. The fauna lists are incomplete in both the vertebrate and non-vertebrate groups and undertaking the necessary survey work is considered a priority. However, based on the information which is available, a list of 3,000 plant species is known to be present. This represents 66% of all species recorded in BiH. Of these species, the area does support at least 32 globally-threatened plants and at least 430 endemic species many of which are montane / glacial relict species. Of these, 194 are endemic to BiH and 61 endemic to the Dinaric Alps. Important fauna include a number of globally threatened bats and rodents, and larger mammals include Brown Bear, Wolf, Lynx and Chamois. A variety of birds including the globally threatened Corncrake, and European threatened species including Griffon Vulture, Golden Eagle, Peregrine Falcon, Eagle Owl, Rock Partridge, Capercaillie, Hazlehen and various woodpeckers; and the globally threatened Meadow Viper and Cave Salamander, both categorized as endangered.

The Igman-Bjelasnica-Visocica area has long been inhabited and contains remains from the prehistoric period onwards. There is evidence to suggest that the area was completely covered by forest up to the 14th century and that subsequent actions cleared land for grazing pastures, the Bjelasnica mountain plateau representing the farthest borderline of Herzegovina and therefore the furthest area utilized by the cattle breeders from Herzegovina. Evidence of Roman occupation is found along with tombs from II – VI centuries. Clearly by the medieval period the area was well populated given the number of necropolis dating from that period. All present settlements of this area are young in their origin and they date from the period of the second half of the 19th century. They were created by gradual transition of temporary settlements of farmers into permanent settlements. The area was significantly affected by the 1990's conflict and many villages sustained heavy damage. However, many archaeological remains and artifacts remain which make the area important in cultural terms and requiring added protection.

The area under consideration for designation as a PA has a history extending back through approximately thirty years of previous feasibility studies and proposals. A National Park Igman-Bjelasnica-Visocica appears on a list of potential new national parks in the territory of Bosnia and Herzegovina made by the IUCN dated 1984 and this proposal was re-affirmed in the Physical Plan of Bosnia and Herzegovina dated 1986 which is still currently in force. In 1986, the City of Sarajevo adopted the Physical Plan for the period 1986 – 2000 (extended to 2015). Within the Plan it was proposed to designate a 'Regional Park SARAJEVO'. This comprised of the mountainous area around the city and totaled 1,092 km². This Regional Park included (according to the nomenclature of the period) National Park Treskavica (5.810 ha), Nature Park Bjelasnica (25.402 ha), Visocica (2.625 ha), Nature Resort Rakitnica (2.137 ha). However, due to hostility from the forest industry at that time, these proposals were largely unaccomplished. Various other studies have been undertaken by specialists in Bosnia to propose and define protected areas within the vicinity of Igman-Bjelasnica, most notable of these was a proposal to include an area comprising of Igman, Bjelasnica, Treskavica, the Rakitnica Canyon and the northern edge of Visocica (Lakusic et al. 1986). Redzic et al. provided justification for protecting an area whose southern boundary was defined by the border of Sarajevo Canton and thereby omits the Rakitnica Canyon (Redzic et al. 1999), and Fukarek suggested a wider area including the Rakitnica Canyon and parts of Treskavica but draws the southern and eastern boundaries according to the entity boundary with the Republika Srpska (HTS 2001).

In 2001, the European Union / World Bank National Forestry Programme undertook the preparation of a Feasibility Study for Igman-Bjelasnica National Park. This study proposed a larger area than previously considered which measured 117,700 ha and included the mountains of Igman, Bjelasnica, Visocica and Trescavica. The boundary selection was based on the premise that the integrity of eco-systems should not be compromised by artificial political boundaries. This approach was based on the IUCN criteria for maintaining the integrity of eco-systems and by defining the proposed parks borders by physical attributes. Thus the area proposed in the 2001 study provided a continuous area of mountain massifs and forest eco-systems not significantly fragmented by human infrastructure and activities. These boundaries further extended the ecological network in Bosnia by abutting, in the southeast, the Zelengora and Lelija plateaux, which were protected as a hunting zone under the management of the Sutjeska National Park, and in the southwest bounded by the Prenj and Cvrsnica massifs. Also in June 2001, the World Bank / EU funded 'Study on the Effect of Forestry on Biologically Sensitive Areas' was published by the Institute for Protection of Cultural, Historical and Natural Heritage. This institute is responsible for proposing protected areas within the Federation. As part of this study a proposal was made to establish a National Park Igman Bjelasnica covering an area of 62800 ha. The boundaries given for this proposal broadly follow those of the 2001 Feasibility Study insofar as the proposed area is within the Federation. Land is excluded within the Republika Srpska, and the boundaries have been pulled back from recognizable natural and physical features, thus the 'on ground boundaries' for this proposal will be unclear. The final boundaries for the National Park will be determined through the participatory process during the development stages of the proposed National Park and Natural Resources Management Plan.

In 1984 the Winter Olympics were held in Sarajevo. The Igman-Bjelasnica area hosted a number of events and ski runs and cableways were constructed on Bjelasnica Mountain. This required the felling of areas of forest for their construction. The reconstruction of the 1984 Winter Olympics tourism resort center on Igman and Bjelasnica is ongoing. This includes the construction of new hotels and apartment buildings within the main skiing center at Babin Dol.

According to FBiH Law, because the proposed PA extends across two Canton areas, designation of the PA will be undertaken at Federal State level, the requirement for a feasibility study to be undertaken prior to designation has been complied with, and a statement of intent has been made by the Federal Parliament to declare Igman-Bjelasnica- Treskavica-Visocica as a protected area. According to estimates, about two thirds of the land in the proposed park area will be in state ownership, and one third in private ownership. The arable land, meadows and orchards are almost completely in private ownership. The pastures, forests and infertile land are mostly in state ownership. The designation of the National Park will not affect the current ownership pattern of private land. It is intended that State land be passed to the National Park for management purposes after an initial two year interim period from declaration of the National Park Law.

There are no plans to privatize land within the proposed park area and no data exists regarding land previously nationalized and which may be subject to privatization laws in the future.

The following development scenario for the PA is considered achievable:

The PA Igman-Bjelasnica-Treskavica-Visocica (Landscape Park) will be categorized overall as IUCN V with other categories protecting individual natural and cultural sites. A zoning plan will be developed as part of the management plan process which will identify, where appropriate, core areas etc. Emphasis will be placed on maintaining scenic landscapes and traditional land use patterns (cultural landscape). Within the PA, specific connecting corridors will be identified to link sites of high ecological value within the park. The PA will also serve as a cornerstone in the national / international network specifically linking the Sutjeska N.P. and associated hunting area Zelengora with the proposed PA Prenj-Cvrsnica-Cabulja. The proposed area is a “living landscape” with a large resident population.

As a landscape park, maintaining the cultural attributes as well as scenic value will be important. This will require, on the one hand, a development control structure to ensure that the erosion of cultural character as a result of building activities which do not conform to the local vernacular style is prevented and all building and other development activities such as skiing facilities are undertaken in a sensitive manner. To achieve a sensitive development approach and support local economic development the establishment of the Eco-Activity Incubator along with developing links and partnerships with existing NGO activities such as Foundation for the Protection of Bjelasnica, Igman Treskavica and Rakitnica and the Foundation for Sustainable Development are considered to be essential.

Overall there would be a continuation of normal land use activities but with some restrictions. For example, the identification and management of wildlife corridors may require some forest areas to be taken out of commercial production. Greater emphasis on sustainable forest management will be required in remaining commercial areas (these could be used as examples of good forest management.) Areas contaminated with mines will remain out of production for the foreseeable future. Encouragement will be given to maintain traditional farming activities and / or new farming activities which are “ecologically friendly” and which maintain landscape character. Support, regulations / local agreements to regulate livestock numbers in sensitive areas will be considered as a part of the management plan activities.

Igman Flagship Project will concentrate on activities that encourage maintenance of the land use practices, which have maintained the traditional landscape and its ecological richness. As a result of agricultural activities over a prolonged period, the pattern of the landscape has been shaped and cultural values created. The prolonged maintenance of traditional agricultural practices has created rich ecosystems such as wild flower meadows along with their associated invertebrate species, especially Lepidoptera of which there are 127 species recorded.

Within the Feasibility Study 2001 it was proposed that two centers would be established which would provide knowledge on traditional farming techniques needed to maintain the diversity of landscape ecology in the PA. These centers would serve as resource centers for the study of the traditional agriculture of the area, and associated ecology. They would provide a living ‘data bank’ of old varieties of agricultural livestock (Pramenka and Humnjacka sheep and Busha cows). Local people will be encouraged through seminars, courses and on farm visits to undertake tasks in their day to day activities which will ensure the conservation of nature for the future. This may include help with marketing organic products through eco-labeling or other means. Visitors, tourists, school groups etc. to the centers would be able to experience aspects of past rural life in the area through interpretation and a ‘living’ museum encounter. The center would also provide an outlet for local people to sell food products and crafts produced in the

local area. One center would be established in the village of Lukomir and a second in Ledici. These two centers represent the principal traditional farming types of the areas, transhumance farming in Lukomir and permanent farming in Ledici.

Historically the area is important for recreational activities, especially skiing. Redevelopment / refurbishment of existing facilities is not incompatible with the landscape park designation, but expanding secondary facilities such as guest houses etc. may have impacts that need to be determined. As a landscape park the area could absorb a significant number of “managed” visitors undertaking a wide range of activities. During the development of the management plan process, the various land uses and recreational activities with associated infrastructure will be linked to a zoning plan and carrying capacity study. A strategically placed visitor center will play an important role in visitor management, including spreading activities into specific areas, interpretation and education.

To assist setting up this PA the project will finance the following items within the subcomponent infrastructure:

- Refurbishment of an existing building, identified by the Government, within the PA to serve as the office and as a visitor information / interpretation center. Further basic infrastructure including gatehouses, information and signboards, trail construction and marking, marking PA boundaries, garbage collection containers and others.
- To prevent forest fires, chain saws, fire prevention barrels, shovels, a pickup with 500 litre cistern and water pumps.
- Infrastructural improvements like baskets, benches, hand holds along trails and resting places.
- IT equipment like GPS, GPS software, internet access, notebook, PC, PC - software, printers, printer-copy-scanner, professional copy machine, projector, TV set + video and literature in local language will be provided. Furthermore TA and walky-talkies for inexpensive communication within the PA.
- Office furniture.
- Ranger equipment like backpack sprayers, shovels, binoculars, digital cameras, field clothes and shoes, horses and relevant equipment, off-road motorbikes and others.
- Research equipment like a cyto-genetic laboratory, photo laboratory, mobile microclimate measures station and others.
- Reconstruction of necessary barns and buildings associated with the flagship project
- Tourism related infrastructure such as photo-belvedere construction, horses, horse and oxen barns, hunting lodges also for overnight stays, Rakitnica camping places, studies about forestry and tourism potential, training of rangers, wildlife watching hides.
- For transport facilitation, a 4x4 pick-up, a minibus (15-22 people) and a few snowmobiles.
- TA is foreseen for the cadastral survey, feasibility study (update of the existing one) and a management plan.

As with each PA, but excluding the two virgin forests, an Eco-Activity Incubator will be established as a focal point and ideas generator for the local population to gather information regarding the development of new ecologically based livelihood activities and receive development support.

2. Una Protected Area

The proposed PA Una is located in the North-West of BiH near Bihac and comprises in general the upper flow of the Una River. Una springs from the northeast side of the Strazbenica Mountain in Croatia and flows through the following places and towns in BiH: Martin Brod, Kulen Vakuf, Ripac, Bihac to Dubica. Then Una leaves BiH and flows into the Sava River near Jasenovac in Croatia. The main tributaries are the Unac, Sana, Klokot and Krusnica rivers. The highest Mountain in the area is Pljesevica that rises up to 1,657 m above sea level and straddles the border between BiH and Croatia. The area of PA Una is approximately located as follows: Longitude 15°52' – 16°19' and latitude 44°49' –44°23'. The area covered is approximately 16,000 ha and lies within the Una Sana Canton (mostly in the municipality of Bihac) and a small part in Livno Canton; the zone around the Unac spring.

The biodiversity value of PA Una is characterized by a high number of endemic and relict species. Unsustainable exploitation of natural resources such as forests, non-timber forest products, grazing, land mines and planned hydropower stations with dams endangered this unique biodiversity which contains over 170 types of medicinal herbs; a rare plant, *Campanile unensis*, the Una blue-bell, was named after the Una Rivers bright blue colors. The particular value of this area is "Strbacki buk", a unique waterfall and cascades arising from the effects of biological, chemical and physical factors.

Furthermore Una is famous for Tufa, a mineral deposit formed by the deposit of calcium carbonate from mineral rich water. Calcium carbonate is the same mineral that makes up limestone. Deposits are formed around springs that can range from cold to hot. Tufa is described as spongy or cellular and is characterized by numerous, irregular, open spaces resulting in a relatively lightweight rock. Minute amounts of other minerals result in colors of grey, buff, yellow and red. A layered or bedded appearance is not uncommon resulting from the precipitation of calcium carbonate in shallow pools on terraces. The calcium that forms tufa originates from two primary sources. The first is from areas underlain by limestone rock. In areas where groundwater dissolves the limestone forming calcium rich solutions that upon surfacing become springs that can rapidly precipitate calcium carbonate and form tufa deposits. The second source is from springs that can originate from considerable depths and derive their calcium from dissolution of minerals from virtually any rock type. Tufa Rock was utilized for thousands of years and is now almost extinct. Many buildings in Rome, Bosnia and elsewhere in Europe are still standing that have utilized this rock for construction because it is light weight and easy to cut and handle. This porous rock creates insulation from hot weather as well as cold weather.

Additionally the area is rich in cultural heritage and within the boundaries of the foreseen PA will be the historical sites of Ostrovica and Havala and Rmanj monastery in Martin Brod. The area also includes important karst features, including submerged karst cave systems.

In the 1960's the Former Yugoslavian Government, supported by the initiative of the association "Unski Smaragdi" (the Una Emeralds), tried to register a part of the Una valley in the UNESCO World Heritage List but did not succeed due to missing environmental assessments and studies. Later, the Institute of Cultural, Historical and Natural Heritage Protection of Bosnia and

Herzegovina made a proposal for starting the procedure for the Una river area to be established as a Nature Park.

Today the creation of the Una PA still has the full backing of the FBiH Government and the two houses of FBiH Parliament have declared Una as an “area of specific interest”. A feasibility study, as required by FBiH law, is under preparation and results should be available by summer 2005. Beside proposals for , study will come up with a legislative part to generally enable establishment of PAs in FBiH. A positive feasibility study will result in declaring Una a PA. Also the Municipality Bihac is a strong supporter of the PA idea and is willing to provide premises for administration and a visitor center.

Development scenarios foresee the declaration of the PA Una on FBiH level, if the area can be extended into Canton Livno or if Una will be a Category I (Nature Protection Areas) or II (National Park) project.

PA Una could also be declared PA on Cantonal level, if the area covers only Una Sana Canton and is classified as Category III (Natural Monument) or Category IV (Landscape Protection Area). Its size would be almost the same as if PA Una included the area of Unac spring.

The boundaries of the proposed PA will encompass an area reserved for the establishment of an ecological corridor covering an area of approximately 5,000 ha to create a link towards the Plitvice National Park in Croatia. Currently there is no corridor from Plitvice NP extending to meet with the Una. However, co-operation does exist between the two governments with regard to these PAs and establishing the links is considered to be feasible by both parties. The project will increase the co-operation between the managers of both protected areas. A first phase could integrate the water catchment area west of Bihac and a second phase the remaining area on both sides of the border.

The project will provide support for the establishment of the PA by:

- Providing support for the development of the PA management plan; refurbishment of office space and providing necessary technical equipment for effective management including GPS;
- Refurbishment of existing buildings in Kulen Vakuf to create a visitor interpretation center and study facilities. This could be developed in co-operation with the fauna - flora department of Bihac Museum.
- Construction of gates and ranger stations at the entrance to the PA; there are three main access roads;
- Field equipment and transport for rangers including, wet weather gear, basic fire fighting equipment, motorcycles, communications equipment, binoculars and cameras;
- Improvements to basic infrastructure such as trail signing and improvements, construction of wildlife watching / hunting hides and platforms.
- A public awareness campaign will be initiated which will include information talks to local communities and schools, development of a web site, development of corporate identity and marketing tools.
- Staff training on all levels will be undertaken.

- An Eco-Activity Incubator, independent from PA management and the visitor center will be initiated to support the local population in developing new, environmentally friendly activities; at least 16 NGOs are actively supporting the PA idea and willing to assist wherever required.
- Reactivating the former steam train as a tourist panorama train between Martin Brod - Kulen Vakuf and Strbacki Buk; this train will attract additional visitors and make the access to Una valley environmentally acceptable. In a next phase this train could run from Martin Brod all the way to Plitvice NP in Croatia.
- Building wooden bridges and lookout points near the river in Martin Brod and Strbacki Buk.
- Reconstruction of road and trial infrastructure.

A flagship project based on river fauna and underwater biodiversity will be supported. It is foreseen that an otter conservation project will feature strongly in this approach as, due to well-developed hydrography, Una is also a habitat of the Eurasian otter (*Lutra lutra*), which is a rare species in Europe and is globally threatened.

Una has a long tradition in water based activities, such as canoeing, kayaking and rafting and developing the water theme will be a strong component of management. Small water mills have an old tradition in Una Canyon. To conserve this tradition and to attract visitors to the park a number of these will be restored by the project and brought back into use. The Una is also considered to be an important rafting center and this is a major business in the area. The project will work with the rafting operators to develop activities which are compatible and promote the PA conservation activities.

2. Sutjeska National Park

SNP is situated in the forest, mountain region, in the South East of entity Republic of Srpska, in the border between Bosnia and Herzegovina and Monte Negro. By car it is two hours to SAA and 3 hours to Dubrovnik. The Park is extended on about 17.250 ha of hilly terrain and is situated at approximately 43°19' north latitude and 18°37' east longitudes. Mountains that surround the Park are: Maglić (2.386 m-the highest peak in B&H), Volujak (2.337 m), Zelengora (2.014 m), Lelija (2.032 m) and Vučevo (400-1.700 m), and they are part of Dinaridi mountain range (or Dinaric Alps). East from the Park are Piva mountains and canyon of Piva river, as well as canyon of Tara.

During forest inventory activities on the slopes of Maglić in 1938, the foresters found out beautiful stands of fir, beech and spruce in which standing volume had reached up to 1000 cubic meters per hectare, with some trees height over 50 meters. Not only according to volume and trees height, but also according to structure, appearance, and beauty in general, these stands in Perućica stream basin didn't have equal in the forest stands of Dinaric Mountains. Those were the main reasons for these forests, surface of 1.234 ha, by the decision of the Government of the People's Republic of Bosnia and Herzegovina from 17th of May 1952 to be "extracted from the regular forest management as forest object for scientific research and education purpose", and by the decision of the State Bureau (Zemaljski zavod) for the Protection of Culture Monuments and National Rarities of B&H from 3rd of June 1954 to be "put under the State protection as nature reserve", with surface of 1.434 ha.

In 1962 SNP was established in today's size with 17.250 ha and it is the most important PA of BiH. A Management Plan was done in 2003 but due to limited resources by manpower and finances, just part of this plan have been implemented so far. The project will assist in implementing many issues outlined in the management plan.

Tara Canyon is the deepest, longest and visually the most spectacular canyon in Europe. Proposals to extend boundaries of Sutjeska N.P. along the line of the Tara Canyon and thereby linking with Durmitor N.P. in Montenegro to create an international cross border link is recommended in the Management Plan for the Park published in 2003 and funded by the WB. The extension is also a stated IUCN priority in the strategic plan 'Conservation without frontiers – towards a new image for the Balkans'. This new area will be approximately 7,500 ha. As part of the expansion process, a management plan for the extended area will be developed and assimilated into the existing park plan.

Biodiversity, flora and vegetation: Natural characteristics of this area have direct impact on the appearance and distribution of flora and vegetation. In the floristic view here on the same space we meet the representatives of continental (hilly and mountain) and sub-Mediterranean (karst) landscapes. In vegetation view, transitional climate character of this area is suitable for the mix structure of forest vegetation communities, assigned into 4 height vegetation belts: hilly (with beech forests and stands of hop-hornbeam), highland (with beech, fir and spruce forests), pre-mountain (with beech and spruce forests) and mountain (with mountain pine). Twelve basic vegetation zones that are determined in SNP are shown on the special map (see the folder SNP MAPS).

Flora of SNP and surroundings are very well researched. From river Sutjeska valley up to the highest tops of Maglić, in the height span of almost 2.000 meters, are spread numerous communities of meadow and forest ecosystems, and ecosystems of lathes, rocks, and mountain turfs too. One can find in this area almost all flora species of high mountains within Dinaric mountain system. In SNP appear more than 2.600 vascular plant species classified in 670 genus, 123 families, 52 orders and 7 classes. Of this number, 21 species in 11 genres are steno endemic species. Ninety-nine flora species are poisonous and 436 edible. The park is situated in mountain area well known on huge number of endemic species and sub species (*Crepis bosniaca*, *Crepis dinarica*, *Achillea serbica*, *Acer heldreichii*, *Orchis bosniaca*, *Eryngium palmatum*, *Oxytropis dinarica*, *Lonicera borbasiana*, *Amphoricarpus autariatus*, *Viola zoysii*, *Teucrium arduinii*, *Sorbus chamaemespilus*, *Iris bosniaca*, *Cerastium dinaricum*, *Knautia sarajevoensis*, *Hesperis dinarica*, *Geum molle*, *Edroianthus sutjeskae*, *Berberis illyrica* etc.). Within SNP there are localities overgrown with relict Arcto-Alps specie *Dryas octopetala* that points on tracks of glaciations on Dinarids. Especially are interesting fragments of the community of glacial relict – *Salix serpyllifolia* on the height above sea level 2.100-2.300 meters, where beside stated specie we find also rare orchid specie *Gymnadenia friwaldii*. On most outstanding ranges of Maglić there are endemic species *Silene balcanica* and *Aubrietia croatica* and in the cracks of vertical rocks Sniježnica there are communities of *Daphne maliana* with number of rare and endemic species. Beside extraordinary flora resource, SNP contains also a list of 100 species of edible mushrooms. **According to the IUCN Red Data List in SNP appears great number of endangered, sensitive and rare species (Table: 1).**

Table 1: Flora species included on the IUCN Red Data List

1. IUCN CATEGORY		
Endangered	Sensitive	Rare
Number of genus: 18	Number of genus: 3	Number of genus:
Number of species: 20	Number of species: 4	Number of species: >200
<i>Listera cordata</i>	<i>Picea abies</i>	
<i>Potentilla palustris</i>	<i>Fagus moesiaca</i>	
<i>Cypripedium calceolus</i>	<i>Acer visianii</i>	
<i>Ophris sp.</i>	<i>A. pseudoplatanus</i>	
<i>Orchis sp.</i>		
<i>Menyanthes trifoliata</i>		
<i>Corylus colurna</i>		
<i>Juniperus sabina</i>		
<i>Taxus baccata</i>		
<i>Trollius europaeus</i>		
<i>Narcissus radiiflorus</i>		
<i>Rhododendron hirsutum</i>		
<i>Daphne cneorum</i>		
<i>D. laureola</i>		
<i>Campanula slavnicii</i>		
<i>Edaianthus jugoslavicus</i>		
<i>Visianella sutjeskai</i>		
<i>Aquilegia dinarica</i>		
<i>A. smiljajae</i>		
<i>Valeriana braunii-blanquettii</i>		

The most valuable object for studying undisturbed development of natural ecosystems is virgin forest Perućica that grasps the whole basin area of river Perućica and is considered to be among the biggest virgin forests in Europe. Inventory project on vegetation biodiversity in virgin forest, which is in progress, will certainly complete knowledge on already rich biodiversity in SNP

Biodiversity, fauna: The most eminent group of invertebrate in SNP is the order of Lepidoptera. Their diversity in the Park is the reflection of diversity of wild flora, which represents their food source. Though there is no comprehensive research, recent observations points to exceptional number of species (over 30 species of butterflies) within the mentioned order.

In SNP naturally appears four fish species from two families: *Salmo trutta*, *Salvelinus alpinus*, *Tymallus tymallus* (family Salmonidae) and *Phoxinus phoxinus* (family Cyprinidae). Fish population was not carefully studied and so scientific data on life of fish species are rather poor. In the Park also appears many species of amphibians and reptiles of which as endemic are most interesting *Proteus anguinus* and three lizard species: *Lacerta horvathi*, *L. mosorensis* and *L. oxycephala*.

114 bird species was recorded in SNP what makes 36% of the total number of known species in B&H. Of these, 61 species live and nest in the Park, 32 species inhabit the Park only during the summer time but they also build their nests there. 16 species belong to migratory birds passing through the Park in the spring and autumn on their way towards North/South. 5 species usually

appears only in the winter. It is assumed that with systematical observation throughout the year, the final list on bird species in the SNP could reach the number of 150 species. In the beech and fir forests (the middle height above the sea level around 1.150-1.600 m) was registered the largest number of species, while the smallest number was registered on the petrified habitats (the high height above the sea level). Very recognizable group of species, which is linked to high height above the sea level and petrified terrains, includes *Alectoris graeca*, *Montofringilla nivalis*, *Prunella collaris*, *Pyrrhocorax graculus*, *Sitta neumeyer* and *Monticola saxatalis*. Bird specie with very specific requests concerning the habitat (vertical rocks blocks) is *Tichodroma muraria*. Two species, *Tetrao urogallus* and *Crex crex*, could be set aside due to specific needs related their respective management. *Tetrao urogallus* is on the list of game that can be hunted in the Park, and *Crex crex* is on the list of endangered species in various parts of Europe and is necessary to be protected with special protection measures (IUCN Red List). The list of birds in the SNP includes also nine species from the family *Picidae*. That number represents 90% of this family in Europe and could be explained by favorable habitat conditions, namely forest ecosystems. Bird species within this family depends on old, ill and dead trees as a source of food as well as environment for building nests and reproduction.

Six orders of mammals founded in the SNP include 36 species and 18 families (Table: 2).

Table 2: Mammals in SNP

Order	Family	Specie
INSECTIVORA	Erinacidae	<i>Erinaceus europaeus</i>
	Soricidae	<i>Sorex minutus</i> <i>S. araneus</i> <i>S. alpinus</i> <i>Neomys fodiens</i> <i>Crocidura leucodon</i>
	Talpidae	<i>Talpa europaea</i> <i>T. caceca</i>
CHIROPTERA	Rhinolophidae	<i>Rhinolophus hipposideras</i> <i>R. ferrumequinum</i>
	Vespertilionidae	<i>Plecotus auritus</i>
LAGOMORPHA	Leporidae	<i>Lepus europaeus</i>
RODENTIA	Sciuridae	<i>Sciurus vulgaris</i>
	Microtidae	<i>Clethrionomys glareolus</i> <i>Dinaromys bogdanovi</i> <i>Pytimys subterraneus</i> <i>Microtus nivalis</i> <i>M. arvalis</i>
	Muridae	<i>Apodemus flavicollis</i> <i>A. sylvaticus</i> <i>Rattus rattus</i> <i>Mus musculus</i>
	Spalacidae	<i>Nannospalax hercegoviensis</i>
	Gliridae	<i>Glis glis</i> <i>Dryomys nitedula</i>
CARNIVORA	Canidae	<i>Canis lupus</i> <i>Vulpes vulpes</i>
	Ursidae	<i>Ursus arctos</i>
	Mustelidae	<i>Mustela nivalis</i> <i>M. putorius</i> <i>Meles meles</i> <i>Lutra lutra</i>
	Felidae	<i>Lynx lynx</i>
ARTIODACTYLA	Cervidae	<i>Capreolus capreolus</i>
	Bovidae	<i>Rupicapra rupicapra</i>
	Suidae	<i>Sus scrofa</i>

Mammal species registered in SNP are considered as typical for forest, Sub-Alps and Alps habitats of mountain regions of the South-East Europe. Two mammal species that live in SNP, *Canus Lupus* and *Ursus arctos*, are protected in the whole Europe and are on the CITES list –

Appendix II. Both species are hunted in SNP. The population of *Canis lupus* and *Ursus arctos* in SNP is estimated about 25 and 70 respectively.

In Sutjeska N.P. the flagship project will focus on big mammal conservation, focussing primarily on the large carnivores and bear population as endorsed in the Sutjeska N.P. Management Plan 2003. Experience will be drawn from the work of the WWF Large Carnivore Project in Romania and the European Union LIFE projects from other European countries, including Croatia, Slovenia, Greece and Spain. BiH is an eligible LIFE Third Country and additional support assistance will be sought especially in targeting research and implementation for improving the human-carnivore relations. Developing a project of this nature will provide a catalyst for the exchange of ideas through meetings, conferences and research among national and international ecologists and scientists to improve the sustainable management of mammal populations throughout the Balkans, and encourage the protection of internationally threatened species. Furthermore, the wider benefits of establishing conservation based projects of this kind will provide opportunities to develop nature based tourism activities, similar successful projects which provide benefits to the PAs and local populations have been undertaken other European countries. These tourism activities will have a strong educational component for both the domestic population and international tourists, utilizing both educational interpretation and providing viewing opportunities to promote the conservation message.

4. Kozara National Park

The Park is located in the North-West part of the Republika Srpska, around 50 km West of Banja Luka. It stretches over the territories of municipalities of Prijedor, Kozarska Dubica and Gradiska, bounded with rivers Sava on North, river Una on the Western side, river Vrbas on the Eastern side and river Sana on the South. Proclaimed as “Historical Forests of Kozara” in 1957 by the Government of National Republic of Bosnia and Herzegovina, the Park extends to a total area of 3,494 ha; 3,049 ha are dedicated to commercial forestry, 429 ha are reserved for a tourist development zone and 17 ha for a general development zone. Additional to this is a special hunting area of 16,728 ha exists.

The development of the Park was based on the historical events of World War II. With the memorial complex Mrakovica is one of the tourist attractions. Shifting emphasis towards nature conservation will be the primary task of management over the next ten years. Apart from the WWII interest, the area does have important cultural and archaeological remains from pre-historic times, and interesting monasteries and churches that are frequently visited by worshippers and tourists.

The area has not been well researched for either flora or fauna, however, a wide range of endemic species have been recorded within the Park boundaries. Less is known about fauna species in zoogeographic terms, Kozara belongs to the Middle-European bio-geographic area and only the Occurrence of Viper *smodytes* is represented from Mediterranean bio-geographic area. There are no large carnivores permanently resident in the Park.

There is currently no active management plan for the National Park, The existing plan dates from 1971, and covers the period from 1971 – 1990. A Forest Management Plan (Sumskoprivredna

osnova) covering the Park area for the period 2002 –2012 has been adopted by the RS Government and a Hunting Management Plan (2002 - 2012) for the hunting area. The plans do not take full account of the conservation interest and follow the traditional forestry utilization approach. The project will fund a ‘New Management Plan for Kozara National Park’. This will refocus activities further towards conservation, education and recreation and will set out a 10 year Action Plan for the Park taking into account the necessity to move away from the reliance of the Park on timber sales and hunting fees towards receiving income from conservation compatible activities such as sustainable forms of tourism. Within the context of the management plan will be a feasibility study for the extension of the park.

Nevertheless the first step must be an extension “within the existing borders” as Kozara NP actually uses 3,049 ha for commercial forestry activities. A reduction of these commercially used forests by 50% was discussed and would be a start to increase the fully protected area and its biodiversity value.

Because of the Parks proximity to urban areas, there is an opportunity to develop both educational and recreational activities. Existing within the Park are a number of recreational facilities including a hotel complex and lodges, although current use is low and investment is required, to refurbish and market these facilities.

The flagship project for Kozara N.P. will be the development of a National Center of Excellence for Nature Protection and Environmental Education. This project will assist with the renovation and conversion of an existing building to a Nature Education Center for schools, further education establishments and a Visitor Interpretation Center. The center will consist of classroom space and indoor nature study area, a small conference facility and public display areas incorporating interactive display and materials. Because emphasis is placed on education and ‘nature’ recreation activities, facilities within the park to pursue nature based activities will be upgraded, interpretation boards, signed tracks, bird / mammal watching hides and platforms will be developed, marketing and information materials produced and a web page for information and events promotion. To further encourage an appreciation of nature in young people, an area will be set aside for ‘land art’ activities where school children can work with local and sponsored international artisans.

To assist setting up this PA the project will finance within the subcomponent infrastructure the following items:

- The administrative office located within the Park will be renovated and necessary office equipment provided.
- N.P. boundary marking and cadastre study.
- Visitor / Education center refurbished and fitted.
- Scientific / monitoring equipment.
- Mini-bus / motorbikes for Ranger staff.
- Waste collection facilities.
- An Eco-Activity Incubator will be established to assist local communities located on the periphery of the Park.

5. & 6. Janj & Lom Virgin Forests

Janj and Lom forest areas are located in the RS, within the Western Bosnian Mountains of the inner Dinaric Alps chain. Remnant virgin forests such as these are rare in a European context and therefore of great ecological interest. They have been primarily protected for their scientific value and provide examples of natural forest processes which can offer examples for future research into sustainable forest management techniques for beech / spruce / fir forests in BiH.

Lom virgin forest was declared in 1956 and extends to 298 ha. Janj was declared in 1954 and extends to 295 ha, the core zone is 57 ha. Both forest areas are located on the Entity border with the Federation and forestry activities have impinged on the forest from the FBiH side. Developing co-operation between the two managing forest enterprises to ensure the undisturbed conservation of these areas will be a significant output of this project.

Approximately sixty different plant species have been recorded in Janj and Lom. The inventory is incomplete and it is reasonable to expect this number to be considerably higher; therefore seed collection is one of the opportunities for Janj and Lom. The forests also represent permanent or occasional habitat of different mammals and birds, such as Ermine (*Mustela erminea* L.), Squirrel (*Sciurus vulgaris* L.), occasionally Lynx (*Lynx lynx* L), Brown bear (*Ursus arctos* L.), Roe deer (*Capreolus capreolus* L) and Hare (*Lepus europaeus* Pall.), Dormouse (*Glis glis* L.), Wolf (*Canis lupus* L.), Fox (*Vulpes vulpes* L.), Grouse hen (*Tetrao urogallus* L.), Hazel hen (*Tetrastes bonasia* L.), Hawk (*Accipiter gentilis* L.) and Peregrine Falcon (*Falco peregrinus* T.). There are a large number of different insects and micro-fauna. In virgin forests around 30 different fungi are found. It is considered that virgin forest reservations contain a significant amount of genetic variability and therefore additional research will be undertaken as part of the development of the management plan proposed in the BCP.

The forests are sensitive to anthropogenic activity. Developing attractions for visitors is very limited. The project will provide assistance to the local forest enterprises to train and equip forest rangers, ensure that the forests remain undisturbed from illegal activities and offer a guide service to limited groups. Also studies will be supported to evaluate extension opportunities of these two virgin forests.

The above mentioned PAs are the priority areas for the BCP. Just in case one PA cannot be realized, the project may come back to earlier proposals of the Institute of Protection of Cultural, Historical and Natural Heritage of BiH.

Alternative: Zvijezda-Konjuh-Tajan

The area is located as follows: Longitude 18°08'22" – 18°37'02" and latitude 44°04'02" – 44°19'48". The maximum size of this potential PA is 44,200 ha and would cover parts of Sarajevo and Zenica-Doboj cantons. The biodiversity value of this region is characterized by a large extent of karst plateau areas with associated composition of species (watershed of Bosna river). Presently the area is threatened by unsustainable exploitation of natural resources (forests, non-timber forest products, grazing, etc.) and land mines.

Alternative: Prenj-Cvrsnica-Cabulja

The area is located as follows: Longitude 17°25'00" – 17°58'12", latitude 43°21'25" – 43°43'12". The maximum size of this potential PA is 99,500 ha. The region of mountains Prenj-Cvrsnica-Cabulja and Vran (Cabulja and Vran belong to Cvrsnica massif) is situated in the central part of the Dinarides. Within Bosnia and Herzegovina the region is situated in the north part of Herzegovina. The biodiversity value of this region is characterized by the presence of many endemic and relict plant associations that could be found in the area due to glacial processes; furthermore by a large extent of high plateau areas (with glacial lakes,) and by important parts of the Neretva River Basin (one of the globally most endangered Karst Ecosystems). Presently unsustainable exploitation of natural resources, unregulated tourist development, and waste dumping threaten the area. First steps would be that the Government proposes this area as an area of specific interest.

Alternative: Vranica

The area is located as follows: Longitude 17°36'11" - 17°55'02", latitude 43°53'04" - 44°02'29". The maximum size of this potential PA is 26,800 ha. Vranica is located around 40 km west of Sarajevo, includes the interesting area of the glacial Lake Prokosko Jezero and could comprise a part of the municipality of Fojnica, Gornji Vakuf, Novi Travnik and Vitez i.e. a part of central Bosnian canton. It is characterized by a high number of endemic and relict species associated with silicate and limestone ecosystems, unsustainable exploitation of natural resources (forests, non- timber forest products, grazing, etc.) and land mines. The biodiversity value of the Vranica Mountain is a "specific endemic center" of siliceous flora.

Alternative: Sator

The area is located as follows: Longitude 16°27'11"- 16°44'27", latitude 44°03'18"- 44°13'30". The maximum size of this potential PA is 22,400 ha. Sator is located around 50 km west of Virgin Forest Janj and the area covers both entities. A hard climate is predominant. In the BiH Red Book there is a long list of species found in this area which are, due to scarcity on the habitats, endangered either by the change of ecological conditions or by human impact. The list of typical plants for Sator shows the distinctive biodiversity.

Beside these areas the project may also return to the long list of project locations elaborated by the working group during project proposal preparation; for example also Klekovaca, Vitorog and endemic relicts in the Vrbas Canyon. In the case that all these alternatives do not work out, the project may initiate a new study to find suitable project locations.

Annex 5: Project Costs
BOSNIA-HERZEGOVINA:
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Project Cost By Component and/or Activity	Local US \$million	Foreign US \$million	Total US \$million
1) Establishment, Expansion and Physical Improvement of Sustainably Managed Protected Areas:			
a) Physical Investments	1.12	0.92	2.04
b) Management Planning	0.37	0.3	0.67
TOTAL	1.50	1.21	2.71
2) Strengthening of Capacity at Entity, State, and Local Levels for Biodiversity Conservation and Sustainable Land Use Practices			
a) Training Programs	0.98	1.14	2.12
b) Project Management	0.20	0.10	0.30
c) Monitoring and Evaluation	0.15	0.05	0.20
TOTAL	1.33	1.29	2.62
3) Improvement of Local Benefits Originating from Protected Areas			
a) Grants	1.12	0.1	1.22
b) Grant Management (EAF)	0.1	0.1	0.2
TOTAL	1.22	0.20	1.42
Total Baseline Cost	4.05	2.7	6.75
Physical Contingencies	0.05	0.00	0.05
Price Contingencies	0.10	0.00	0.10
Total Project Costs	4.2	2.7	6.90
Interest during construction	0.00	0.00	0.00
Front-end Fee	n/a	n/a	n/a
Total Financing Required	4.2	2.7	6.90

Annex 6: Implementation Arrangements
BOSNIA-HERZEGOVINA:
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Structure for Project Management. The project would be implemented over a 48 month period starting in the first quarter of calendar year 2007. Project Effectiveness is expected by January 2007, and the Mid-Term Review would be completed by the end of 2008. The project is expected to be completed by December 2011.

BiH represented by the Ministry of Finance and Treasury would be the recipient of GEF grants and would transfer the proceeds to the FBiH and RS Governments by opening two special accounts. Since project implementation will follow the principle of subsidiarity, it will be undertaken at the site level (by National Park Enterprises, Forest Enterprises or Eco-Activity Facility). Oversight and implementation support (e.g. procurement and financial management) of all project activities in accordance with agreed monitorable indicators will be responsibility of project implementation teams in the Entity Ministries of Environment and Physical Planning. To ensure close collaboration with all relevant governmental decision-makers, including Entity, cantonal, and state level institutions, a project steering group (PSG) will be established. The PSG will comprise, *inter alia*, members from the Entity Ministries in charge of Environment, Physical Planning, and Agriculture and Forestry, as well as the Ministry of Foreign Trade and Economic Relations at the state level (as it is the GEF focal point). The steering group will also play a liaison role to the state level Biodiversity Committee to (a) obtain technical guidance and (b) guarantee civil society engagement. The project would support the establishment and operation of the small grants program, promoted and administered by an “Eco-Activity Facility” comprised of a group of individual consultants in both entities.

Aside from providing advice and guidance for project implementation, the project steering group will facilitate the implementation of the small grants program, supported by the Eco-Activity Facility (EAF). While the first screening of activity proposals will be carried out by the group of individual consultants forming the EAF (who will also monitor the implementation phase), the PSG would lead the evaluation process for small grants proposals. To that extent, a project evaluation committee would be established on an ad hoc basis at least two times per year. Aside from the project steering group members of the evaluation committees would include representatives from relevant protected areas, local community/municipality, financial, sector and legal experts.

The project intends on leveraging the MoEPPs existing institutional capacity in the ministry “project implementation teams”. Additional training of MoEPP staff in financial and procurement procedures will be completed by project effectiveness, as determined by the needs assessment to be carried out prior to Negotiations..

Monitoring and evaluation

The M&E system has been designed to provide information to those responsible for project implementation and to assist those involved in planning future land use and natural resource planning that will lead to the eventual expansion of the area under protection and sustainable management. Initially, there will be four main components to the M&E system:

(i) Monitoring global and regional objectives. The data describing the present (baseline) situation in both existing and proposed new PAs, is well documented in Technical Annex 4b). Therefore to measure the impact of the project at this level will rely largely on subsequent reports produced by scientific researchers, the project authorities and Government, which describe the changes in the biodiversity of the selected areas. A GIS biodiversity database to be maintained jointly between the Entity Ministries of Environment, and the Entity Ministries of Agriculture, Water Management and Forestry will provide much relevant information. Monitoring will be reported annually in the Annual Project Report of the of project coordination teams that should include full detail regarding the areas gazetted and under improved management, changes in PA legislation, scientific regulations and procedures for acquisition and management of PAs. Also to be reported will be those areas identified under the project (or elsewhere in BiH) for the expansion of protected areas. Any international linkages that have been established or reinforced will also be documented. Information should also be reported on the achievements of the proposed protected areas to the Project Steering Group. The proposed reporting will embrace most elements of project components 1 and 3 well as non project-specific developments and outputs such as the National Bio-diversity Strategy, Forest Inventory implementation and NEAP activities. If any of the global and regional targets are not being achieved, the constraints should be identified and solutions proposed. Monitoring of this element of the project will therefore be the responsibility of the project coordination teams which will annually collate and report the relevant information according to an agreed format.

(ii) Monitoring of the process of project implementation. The progress of the implementation of each of the four main Components will be reported quarterly by the project coordination teams according to a straightforward report format. A quarterly report format should be devised, based upon the annual implementation plan. The quarterly report will contain details on the activities / actions achieved during the quarter with a brief explanation. Content will include information on all the current activities and will include expenditure against budget, progress with procurement of equipment and consultancies. The report will identify necessary corrective action, the person responsible and the date by which the action should be achieved. The quarterly report of the project coordination teams will incorporate information from the management teams (also in the form of quarterly reports) in charge of the proposed protected areas and the teams in charge of the eco-activity facility and small grants program. It is important that the reporting does not encumber management and a simple system should be introduced at the outset and amended as necessary as the project proceeds. All involved must submit to the basic discipline of reporting on time to ensure that the information is useful to management both at the level of the Entity as well as for the six area managers. The quarterly reports should be submitted (March, June, September and December – the last should be accompanied by the proposed timetable for the coming year) within two weeks of the end of the quarter to which they refer.

(iii) Monitoring and evaluation of national and local objectives. The principle areas identified for this part of the M&E program are:

- (a) Institutional strengthening (training program). While a substantial part of project costs (see Budget table) is spent on training, the major resulting benefit will be the better management and capability of the biodiversity management teams at Entity and area level. The project targets specific number of staff to be trained in different ways –

management training, accountancy, study tours and various workshops. These achievements, against targets, will be monitored and reported in the quarterly report described above. However, the outcome of the training can be assessed by examining the success of the associated project objectives.

- (b) Stimulation of the local economy. To monitor the impact of the project at the local level requires baseline, benchmark data against which to measure change. The population directly affected by the six project areas is estimated to be around 20,000 and the SA has identified the key socio-economic characteristics of this group, through a rigorous household survey utilizing stratified random sampling according to current income group/occupation. Data collected includes: demographic features, educational standards (including languages) and vocational skills, economic livelihood, family income and the source of income, current use of the forests, nutritional habits (possibly), wealth indicators, location of house, knowledge of biodiversity / conservation issues plus other socio-economic factors against which to compare the impact of the project. In addition the SA evaluated the local businesses that might be focused on tourism (Bed and Breakfast establishments, hotels etc.) and other subjects that might be affected by the project. The results of this work are incorporated into the Participation Plan, covering the remainder of project preparation, as well as implementation, and the Process Framework.

(iv) Specific Case Studies. The subjects for some possible investigations have been identified as follows: (a) the source and use of fuel wood and other forest products (b) the impact of access trail construction and signage (c) encroachment into protected areas (d) Human Resources development, staff redeployment and the effectiveness of training. Other topics will emerge during project execution. Case studies will only be implemented if sufficient interest is expressed by project management and / or local stakeholders. The details of case studies will be revised and programmed with specific TOR for the agreement of the project coordination teams prior to implementation.

Staffing and organization: The project coordination team in each Entity will be accountable for the implementation of M&E. Experience in the FDCP has indicated that the work load of the Director is such that additionally it is not possible to fulfill the demands of even a limited M&E program. Focal Points for FDCP have been nominated by the Ministers in charge of Forestry and in their first year they are supported by an International TA. It would be possible to extend the workload of the present Focal Points to cover the M&E program of this Protected Area Project. A budget has been prepared for M&E to include the operational costs of two Focal Points – no salary has been included. To ensure that the concepts of M&E are well understood, and to more clearly formulate the methodology, support will be provided by a M&E expert. The TA would be responsible for establishing the framework for M&E and for training the managers in the associated principles and methodology.

Annex 7: Financial Management and Disbursement Arrangements

BOSNIA-HERZEGOVINA: FOREST AND MOUNTAIN PROTECTED AREAS PROJECT

The total project expenditures for RS and the Federation would be US\$ 6.9 million equivalent, of which US\$ 3.4 million would be financed from the GEF Grant, co-financed with US\$ 2.5 million from bi-lateral sources and US\$ 1 million from the two Entity Governments, as "in kind" contribution. The counterpart contributions would be transferred to a separate counterpart account managed by the Implementation agency.

Financial management. Responsibility for financial management of the project will rest with the MAWFs. The Bank conducted a financial management assessment of the ministries and confirmed that they satisfy the Bank's minimum financial management requirements. The MAWFs will put in place an adequate project financial management system that can provide, with reasonable assurance, accurate and timely information on the status of the project (PMRs) as required by the Bank for PMR-Based Disbursements. During project negotiations, the recipient will confirm if it wishes to consider a move to PMR-based disbursements and if so, agreement will be reached on an action plan to develop further the project's financial management arrangements during the course of project implementation.

Two grant special accounts will be established for the Ministries of Environment and Physical Planning (MoEPPs). These special accounts will be held in commercial banks acceptable to the World Bank and GEF. The MoEPPs will each maintain local currency accounts for both foreign currency payments as well as local 'transaction' accounts for payment in local currency. In principle, local bank balances of more than 2 weeks GEF expenditure are not permitted. Entity government contributions to the project would be held in separate accounts. Charts detailing the Flow of Funds and Documents form the basis for the project accounting procedures and describe all work tasks involved in the flow of funds and accounting. The administrative procedures for the flow of funds would be established by the MoEPPs and documented in the Project Accounting. The procedures will be included in the respective Financial Management Manuals. Each work task would be linked to a specific individual in the MoEPPs.

Financial management capacity. The Bank conducted a Financial Management Review of projects currently under supervision in BiH and concluded that project financial management capacity is being progressively developed, inter alia, as a result of reforms in accounting and auditing. However, systematic capacity building in project financial management is needed.

Audit arrangements. External audits by an independent private auditor (PriceWaterhouseCoopers) as part of BiH's blanket policy has been accepted by the Bank based on terms of reference acceptable to the Bank. The annual audited financial statements of the project will be provided to the Bank within six (6) months after the end of each fiscal year and also at the closing of the project. The contract for the audit will be extended from year-to-year with the same auditor, subject to satisfactory performance. Projects managed by the two implementing agencies in the past have submitted satisfactory audited financial statements on time. The format of the Financial Management Reports (FMRs) has been agreed.

During negotiations, agreement will be reached with the government on the draft small grants program manual and the Project Accounting and Financial Management outlined in the PAD/PIP, including the GEF grant disbursement and flow of funds mechanisms, internal controls, audit and reporting requirements.

Annex 8: Procurement Arrangements
BOSNIA-HERZEGOVINA:
FOREST AND MOUNTAIN PROTECTED AREAS PROJECT

To be completed

[The following standard text should be used. Insert additional text as needed per the instructions in brackets]

A. General

Procurement for the proposed project would be carried out in accordance with the World Bank's "Guidelines: Procurement Under IBRD Loans and IDA Credits" dated May 2004; and "Guidelines: Selection and Employment of Consultants by World Bank Borrowers" dated May 2004, and the provisions stipulated in the Legal Agreement. The various items under different expenditure categories are described in general below. For each contract to be financed by the Loan/Credit, the different procurement methods or consultant selection methods, the need for pre-qualification, estimated costs, prior review requirements, and time frame are agreed between the Borrower and the Bank in the Procurement Plan. The Procurement Plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

Procurement of Works: Works procured under this project would include: *[Describe the types of works]*. The procurement will be done using the Bank's Standard Bidding Documents (SBD) for all ICB and National SBD agreed with or satisfactory to the Bank. *[Indicate any special requirements specific to the project.]* *[If the project involves procurement carried out by communities, indicate where details can be found in the Project Implementation Manual or similar documents.]*

Procurement of Goods: Goods procured under this project would include: *[Describe the types of goods]*. The procurement will be done using the Bank's SBD for all ICB and National SBD agreed with or satisfactory to the Bank. *[Indicate any special requirements specific to the project.]*

Procurement of non-consulting services: *[Provide a general description of non-consulting services to be procured under the project and information on the bidding documents to be used for the procurement.]*

Selection of Consultants : *[Provide a general description of the consulting services from firms and individuals required for the project.]* Short lists of consultants for services estimated to cost less than \$_____ equivalent per contract may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines. *[If applicable, provide any information regarding engaging universities, government research institutions, public training institutions, NGOs, or any special organizations.]*

Operating Costs: *[Describe the operating costs which would be financed by the project and procured using the implementing agency's administrative procedures which were reviewed and found acceptable to the Bank.]*

Others: *[Describe if any special arrangements for scholarships, grants etc.]*

The procurement procedures and SBDs to be used for each procurement method, as well as model contracts for works and goods procured, are presented in the *[name the Project Implementation Manual or the equivalent document.]*.

B. Assessment of the agency's capacity to implement procurement

Procurement activities will be carried out by *[name of the Implementing Agency]*. The agency is staffed by *[describe the key staff positions]*, and the procurement function is staffed by *[describe the staff who will handle procurement]*.

An assessment of the capacity of the Implementing Agency to implement procurement actions for the project has been carried out by *[name of the procurement staff]* on *[date]*. The assessment reviewed the organizational structure for implementing the project and the interaction between the project's staff responsible for procurement Officer and the Ministry's relevant central unit for administration and finance.

The key issues and risks concerning procurement for implementation of the project have been identified and include *[describe the risks/issues]*. The corrective measures which have been agreed are *[Describe the corrective measures]*.

The overall project risk for procurement is *[give the risk rating]*.

C. Procurement Plan

The Borrower, at appraisal, developed a procurement plan for project implementation which provides the basis for the procurement methods. This plan has been agreed between the Borrower and the Project Team on *[date]* and is available at *[provide the office name and location]*. It will also be available in the project's database and in the Bank's external website. The Procurement Plan will be updated in agreement with the Project Team annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

D. Frequency of Procurement Supervision

In addition to the prior review supervision to be carried out from Bank offices, the capacity assessment of the Implementing Agency has recommended *[frequency]* supervision missions to visit the field to carry out post review of procurement actions.

E. Details of the Procurement Arrangements Involving International Competition

1. Goods, Works, and Non Consulting Services

(a) List of contract packages to be procured following ICB and direct contracting:

1	2	3	4	5	6	7	8	9
Ref. No.	Contract (Description)	Estimated Cost	Procurement Method	P-Q	Domestic Preference (yes/no)	Review by Bank (Prior / Post)	Expected Bid-Opening Date	Comments

(b) ICB contracts estimated to cost above [fill in threshold amount] per contract and all direct contracting will be subject to prior review by the Bank.

2. Consulting Services

(a) List of consulting assignments with short-list of international firms.

1	2	3	4	5	6	7
Ref. No.	Description of Assignment	Estimated Cost	Selection Method	Review by Bank (Prior / Post)	Expected Proposals Submission Date	Comments

(b) Consultancy services estimated to cost above [fill in threshold amount] per contract and single source selection of consultants (firms) for assignments estimated to cost above [fill in threshold amount] will be subject to prior review by the Bank.

(c) Short lists composed entirely of national consultants: Short lists of consultants for services estimated to cost less than [fill in threshold amount] equivalent per contract, may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.

Annex 9: Economic and Financial Analysis
BOSNIA-HERZEGOVINA:
FOREST AND MOUNTAIN PROTECTED AREAS PROJECT

Economic. Since technical grants do not require a detailed economic analysis, this section only estimates incremental costs and evaluates environmental benefits in qualitative terms.

Project design assumes environmental and economic benefits arise through physical investment, development of new strategies, capacity building and training. The project will assist PA authorities (and where needed, forest enterprise authorities) to increase their management efficiency, develop new ways of sustainably funding their operations, capitalize important physical investment, and improve harvest management. The project will also implement a Small Grants Program to assist communities in and around PAs in developing sustainable and alternative revenue generation.

Through the expansion of protected areas covered and shareholder capacity enhancement activities, the project will generate significant mutual economic and environmental benefits by: (i) creating the opportunity for creating jobs from better utilization of non-timber values of these forests, particularly from tourism and recreation, including hunting, gathering of berries, mushrooms and herbs; (ii) securing conservation of biodiversity in internationally important critical forest habitats including HCFFs; and (iii) conservation and improved management of globally significant endemic biodiversity and landscape values of sensitive ecosystems. The incremental costs are for those activities that achieve country and regional benefits by (i) supporting protected areas planning; (ii) establishing PA management and building public awareness of biodiversity conservation and IUCN categories in the region; and (iii) increased national capacity to manage the protected areas' natural resources sustainability and conserve their globally important biodiversity. The GEF assistance will help to mainstream biodiversity conservation in landscapes where the primary emphasis is on economic uses, thus this project emphasizes all IUCN categories.

Finally, this project will provide small grants to stimulate local enterprise and to enable new revenue sources. The result will be improved sustainable revenue generation through improved management, i.e. harvest, operational activities; and the utilization of the area in alternative means such as tourism. Therefore, the social and economic impact of the project activities is expected to be positive including the generation of employment in rural areas.

Parallel Forest Sector Economic Framework: This project focuses on the process of PA development in forest and mountain ecosystems. BiH has great potential for forestry - however, if current harvest practices and illegal logging continue, the long-term prospects will not exist. Currently, much of the timber harvesting in BiH is done without permission and subsequently there is little or no reforestation. Improved forest harvest management practices will result in improved economic sustainability.

The government of BiH has taken some steps to this end. As part of recent reform processes of varying degrees in the different parts of the country, economic and administrative control functions have been separated in the parallel forestry sectors, a step towards more transparency in forest management. Consolidation of the current achievements through implementation of the

new legal frameworks has also begun under the FCDP. The FCDP is also developing a national action plan to help reduce illegal activities. Implementation of this action plan should help the forest enterprises to capture a more proper level of revenue from timber harvesting, than that which they achieve at present.

This project also looks at the tourism potential of forests. One aspect of the project invests in infrastructure such as ticket booths, gates, and visitor centers as well as in a local and state public relations program. The main benefits of these investments will actually be in the PA-related buffer zones.

Another aspect of the project looks at safety concerns. Mines are a reality left over from the wars, and some remote areas, as well as areas near human activity in especially the Igman mountain complex still contain minefields. While this potential danger has some effect on the utilization of these areas for tourism activities, this is not a significant concern. Demining efforts are ongoing, with clear “Do Not Enter” areas (marked in red tape with “skull and crossbones”), some of which are in remote locations, and some of which are in locations close to current/potential future, recreation areas. The project does not propose to directly support any demining. Nevertheless, project support for new management plans will take direct account of demining activities.

Assuming the forests in protected areas become safer through trail management, the net benefit of investments for alternative tourist utilization has significant potential. Recently conducted studies analyzed the potential economic benefits of tourism. An assessment of opportunities for tourism found that the natural and cultural landscapes in BiH provide medium to high potential as a tourism destination. The areas with the highest potential among the project sites are Sutjeska NP and Igman-Bjelasnica-Treskavica-Visocica. As airfares to BiH are rather high, many European tourists come by car, along routes near the protected areas. There are hundreds of thousands of tourists visiting the Adriatic coast for their vacations annually. However, the tourism season is only the three summer months of the year. Naturally the season could be expanded to include skiing in winter for mountain areas such as the proposed PA Igman-Bjelasnica-Treskavica-Visocica near Sarajevo.

Financial. Due to the government budget constraints, the proposed biodiversity conservation activities could not be implemented without GEF support. Nevertheless, while project protected areas will strive to generate a greater contribution to their annual budget from park activities in the long term, experiences from other parts of the world show that self-financing cannot always be expected. As a result, and assuming the Government’s commitment to increase the area under formal protection and secure sustainable management, future budget provisions need to be made which will impact the financial plans at different levels.

At present, the policy framework for revenue sharing between entity governments and protected areas is under revision. The PAs have argued persuasively for greater budget support from the central authorities, and it appears that this will be given. By project Appraisal, the final formulas for revenue sharing in the PAs should be completed. This will partly be based on recommendations from an ongoing international consultancy focused on providing options for financial sustainability for the overall PA system. In particular, the study will demonstrate to the Bosnian authorities the normal level of central budget support typical in the rest of Europe, with

clear recommendations on how to sustainably provide resources for PA operations and management. Additional financial benefits are expected from increased tax revenues generated by tourism activities and more broadly from the watersheds (and ecosystems) that they protect.

Project expenditures on the integrated components will generate global, BiH and local benefits with non-recoverable incremental costs. The GEF project aims to generate strategies for long term sustainability. Finally, the project does not include any budget to purchase private land. The project is designed to address concerns of financial sustainability of the protected areas including two current National Parks identified by enhancing their management and revenue alternatives such as increasing the tourism capacity and developing a financing strategy for the PA system. BiH has considerable experience in attracting significant number of tourists to its protected areas, and deriving limited revenues from user fees. The rebounding of tourist inflows to the country after a decline in the 1990s caused by the war provides opportunity to derive revenues from tourists to build on this experience in the NPs supported by the project. The project will fund promotion and marketing activities. A financing strategy will develop a standardized visitor fee structure for individual NPs and associated protected areas.

To support protected area development and financial sustainability, the project would help finance investments in basic PA long-term infrastructure (establishment and maintenance of marked, safe hiking trails, visitor shelters and information centers) and development of related services (advertising campaigns, training of protected area staff to provide interpretation services to visitors, informational materials for visitors) to promote tourism in the priority protected areas, as determined by feasibility studies and local participation. The project would benefit local communities by providing opportunities for obtaining new income from increased visitor use of the protected areas (e.g., through sale of food, room services, handicrafts, and employment of locals as park rangers or wildlife guides to visitors).

Financial projections assume completion of protected area infrastructure and the capacity to manage the protected areas and revenue from protected area visitors. Currently, infrastructure is missing and staff lacks the skills and other resources needed to ensure that visitor use of the protected areas occurs in a sustainable manner and is consistent with the protected areas' biodiversity conservation objectives. The project would build this capacity through TA and monitoring programs. During the project period, visitor use, and therefore revenues are projected to increase modestly, as the skills to ensure environmental sustainability of tourism are developed.

As tourism and especially eco-tourism is getting more popular in BiH, the proposed protected areas have a good potential to cover their annual operations and maintenance costs from tourism revenues in the long term when the project has been completed. The increasing importance of eco-tourism has been analyzed by a JICA project "Sustainable Development through Eco-Tourism in Bosnia and Herzegovina". In 2004 JICA interviewed tourists in the southern area of BiH and 23.9% of them mentioned that their motive for visiting BiH was eco-tourism; in the northern area with less cultural heritage it has been even 52.5%.

In the light of the severe fiscal difficulties that the BiH Government is experiencing, this financial sustainability would be crucial in ensuring long term conservation of biodiversity in the protected areas.

Fiscal Impact: Owing to the financial constraints of Government, every effort has been made to minimize the fiscal impact of this project on the national budget. Even so, it will be important to establish clear expectations for reliable government financing. This will become even more important in the coming years, as BiH moves towards full EU membership. As just one example, the project will contribute to the identification of Natura 2000 sites, which need to be verified prior to EU membership. And beyond simple identification, the EU will require that these sites have reliable funding for ongoing maintenance. Clearly, many of the Natura sites will be inside the PAs, so such longer-term financing is crucial. Tourism potentials will be greatly enhanced when the PAs are able to actively market their natural assets as part of the Natura 2000 network, as this is an important “quality indicator” for environmental tourists in Europe.

The Government total contribution is estimated at US \$1 million or about 15% of project financing, and would come mainly in the form of providing office space, services like cadastre surveys and salaries, among others for PA rangers. The long-term fiscal impact of the project is likely to be positive.

The project's support to existing and would-be local enterprises in setting up and expanding environmentally friendly businesses in tourism services, farming and crafts production, will help expand the Government's tax base. To the extent employment is enhanced, fiscal expenditures for social protection may be less than would otherwise be the case. It is expected that spread over the project life, the fiscal impact of the project will be negligible. More revenues through ticket sales would be used to improve PA management.

Annex 10: Safeguard Policy Issues

BOSNIA-HERZEGOVINA: FOREST AND MOUNTAIN PROTECTED AREAS PROJECT

The project is classified as Category B. The project will have overall positive environmental impact by conserving biodiversity and improving natural resource use. The project would improve management practices in vulnerable ecosystems and reduce unsustainable use of natural resources in those areas. Positive impacts are expected from the expanded system of protected areas, which would include additional recreation areas, provide employment opportunities from watershed protection and maintain gene pools for forests products harvested and used by the local population (berries, mushrooms, snails, etc.).

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment (OP/BP/GP 4.01)	[X]	[]
Natural Habitats (OP/BP 4.04)	[]	[X]
Pest Management (OP 4.09)	[]	[X]
Cultural Property (OPN 11.03 , being revised as OP 4.11)	[]	[X]
Involuntary Resettlement (OP/BP 4.12)	[X]	[]
Indigenous Peoples (OD 4.20 , being revised as OP 4.10)	[]	[X]
Forests (OP/BP 4.36)	[X]	[]
Safety of Dams (OP/BP 4.37)	[]	[X]
Projects in Disputed Areas (OP/BP/GP 7.60)*	[]	[X]
Projects on International Waterways (OP/BP/GP 7.50)	[]	[X]

Project Compliance with applicable safeguard policies:

Environmental Assessment (EA). With the B classification the project requires the undertaking of a EA and the preparation of an Environmental Management Plan (EMP). This work is underway and will be completed, including full public disclosure, by Appraisal.

Involuntary Resettlement. Any establishment of new protected areas will need to involve local communities in broad and sustained participatory processes. Thorough participation is critical because, while there will probably be little or no actual resettlement, it is likely that there will be some restrictions to traditional access as a result of PA formation. The project will assist the government to undertake thorough social assessment exercises in any potential PA. Where access restrictions are an issue, a Process Framework will be used to mitigate the impact of these restrictions. If the social impacts of PA formation are too difficult for mitigation, the PA would not be established.

A Process Framework to mitigate potential negative aspects (which, again, are expected to be minimal) is being prepared as part of project preparation. This Process Framework, appropriate for all existing and to-be-created PAS, will be prepared and disclosed as a condition for appraisal. The Process Framework will describe the participatory process by which project

* By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas

affected people will be consulted with in order to agree on the limits and scope of activities in the protected areas, the criteria for eligibility, mitigation measures to assist the affected population, potential conflict resolution mechanisms, etc. It will also describe the arrangements for implementing and monitoring the process.

It should be noted that for the Una River PA, a preliminary Social Assessment (SA) has been carried out, indicating broad support for park establishment. The SA work is now being undertaken in largest area proposed for PA status – the Igman-Bjelasnica area. This follows an initial detailed SA that had been carried out during preparation of the FDCP. This assessment indicated broad support for this PA, with the vast majority of respondents/participants emphasizing the opportunities that the park could create, vs. the potential threats. The initial results of the new SA again indicate overwhelming local support for the PA.

Pest Management. The project will promote (through component 3) the use of biological or environmental control methods and is not expected to finance any pesticide. Integrated Pest Management issues will be analyzed in the context of the project's environmental assessment.

Forests. The project will (in a positive way) contribute to the improvement of livelihood of stakeholders depending upon or interact with forests. Specifically, and consistent with OP 4.36, the project aims to harness the potential of forest ecosystems to reduce poverty in a sustainable way integrate forest conservation effectively into sustainable development and protect vital local and global environmental services and values of forests.

Projects on International Waterways. The project is likely to establish a National Park to protect the Una River, which is an international river. However, the activities to be supported are unlikely to trigger the safeguard policy. This will be investigated further as the activities under the project are refined

Annex 11: Project Preparation and Supervision
BOSNIA-HERZEGOVINA:
FOREST AND MOUNTAIN PROTECTED AREAS PROJECT

	Planned	Actual
PCN review	03/02/2004	03/02/2004
Initial PID to PIC		03/26/2004
Initial ISDS to PIC		03/26/2004
Appraisal	05/20/2006	
Negotiations	07/06/2006	
Board/RVP approval	09/20/2006	
Planned date of effectiveness	012/20/2006	
Planned date of mid-term review	10/15/2008	
Planned closing date	12/31/2011	

Key institutions responsible for preparation of the project:

Bank staff and consultants who worked on the project included:

Name	Title	Unit
David Bontempo	TTL	ECSSD
Christian Peter	Sr. Forest Specialist	AFTS2
Jessica Mott	Sr. NR Economist	ECSSD
Nikola Kerleta	Procurement Analyst	ECSPS
Mark Walker	Lead Counsel	LEGEC
Agi Kiss	Lead Ecologist	ECSSD
Marjory-Anne Bromhead	Sector Manager	ECSSD
Serena Arduino	Consultant	
Martin Mautner Markhof	Consultant	

Bank funds expended to date on project preparation:

1. Bank resources:
2. Trust funds: US\$220,000
3. Total:

Estimated Approval and Supervision costs:

1. Remaining costs to approval:
2. Estimated annual supervision cost:

Annex 12: Documents in the Project File
BOSNIA-HERZEGOVINA:
FOREST AND MOUNTAIN PROTECTED AREAS PROJECT

- 1) BiH National Environmental Action Plan, March 2003
- 2) Igman Feasibility Study, 2001
- 3) Una River Feasibility Study, 2005
- 4) Sutjeska National Park Management Plan, 2004
- 5) « Study about Influence of the Forestry on Biologically Sensitive Areas in B&H », June 2001
- 6) Social Assessment (under preparation, to be completed by end-April 2006)
- 7) Environmental Assessment/Framework Environmental Management Plan (under preparation, to be completed by end-April 2006)

Annex 13: Statement of Loans and Credits
BOSNIA-HERZEGOVINA:
FOREST AND MOUNTAIN PROTECTED AREAS PROJECT

Project ID	FY	Purpose	Original Amount in US\$ Millions				Cancel.	Undisb.	Difference between expected and actual disbursements	
			IBRD	IDA	SF	GEF			Orig.	Frm. Rev'd
P071004	2003	SOC INS TA	0.00	7.00	0.00	0.00	0.00	6.81	-0.04	0.00
P055434	2003	SM SC COM AGRIC	0.00	12.00	0.00	0.00	0.00	12.04	-0.58	0.00
P079161	2003	FOREST DEVT/CNSRV TA	0.00	3.75	0.00	0.00	0.00	3.82	-0.10	0.00
P070243	2002	PRIVATE SECTOR CREDIT PROJECT	0.00	10.00	0.00	0.00	0.00	5.58	1.07	0.00
P071001	2002	BUS ENABLG ENV SAC	0.00	44.00	0.00	0.00	0.00	29.51	-20.02	0.00
P057950	2002	SOLID WASTE MGMT	0.00	18.00	0.00	0.00	0.00	20.05	-0.85	0.00
P071347	2002	ROAD MGMT SAFETY	0.00	30.00	0.00	0.00	0.00	27.09	0.77	0.00
P070650	2001	SOTAC	0.00	3.55	0.00	0.00	0.00	2.01	1.54	0.65
P070917	2001	PRIV TA	0.00	19.80	0.00	0.00	0.00	20.40	15.46	0.00
P070995	2001	COMM DEVT	0.00	15.00	0.00	0.00	0.00	11.48	11.56	0.00
P058521	2001	ELEC PWR 3 REC N	0.00	35.00	0.00	0.00	0.00	32.59	24.29	0.00
P066169	2001	LOC INIT 2	0.00	20.00	0.00	0.00	0.00	7.81	11.10	1.89
P070079	2001	TRADE & TRANS FACIL IN SE EUR	0.00	11.00	0.00	0.00	0.00	3.20	4.84	0.00
P057951	2000	MOSTAR WS & SAN	0.00	12.00	0.00	0.00	0.00	4.57	-2.88	0.00
P058512	2000	EDUC 3	0.00	10.60	0.00	0.00	0.00	3.30	1.06	0.00
P070146	2000	EMG LABOR REDEPLOYMENT PILOT	0.00	15.00	0.00	0.00	0.00	4.23	7.89	-1.40
P059763	1999	CULTL HERITAGE PILOT	0.00	4.00	0.00	0.00	0.00	1.83	1.68	0.28
P056192	1999	LOCAL DEVT	0.00	15.00	0.00	0.00	0.00	9.29	8.39	-1.04
P044523	1999	BASIC HEALTH	0.00	10.00	0.00	0.00	0.00	0.33	0.32	0.00
Total:			0.00	295.70	0.00	0.00	0.00	205.94	65.50	0.38

BOSNIA-HERZEGOVINA
STATEMENT OF IFC's
Held and Disbursed Portfolio
In Millions of US Dollars

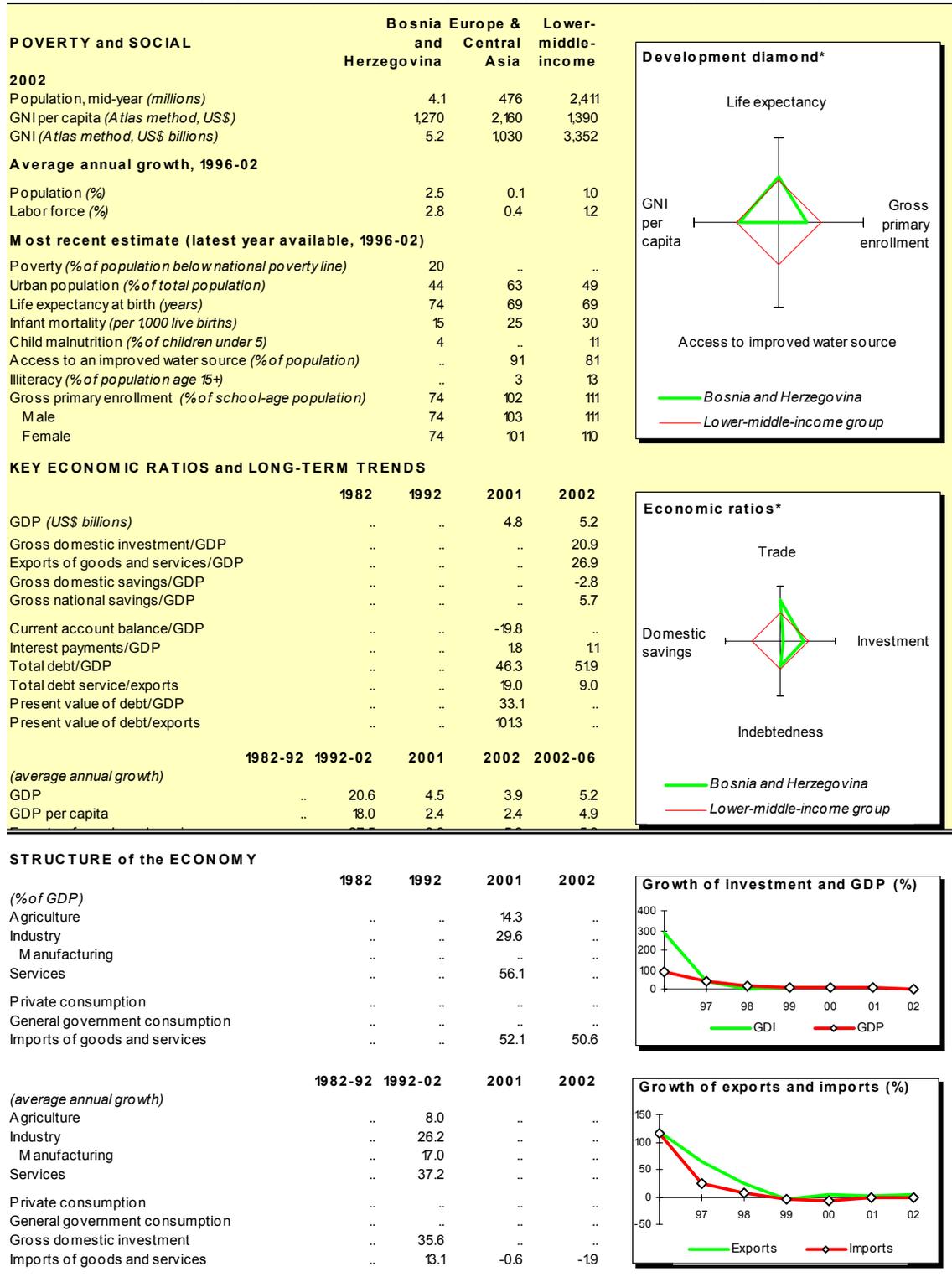
FY Approval	Company	Committed				Disbursed			
		IFC				IFC			
		Loan	Equity	Quasi	Partic.	Loan	Equity	Quasi	Partic.
1997/99/01/02	Bosnia Micro	3.64	0.00	0.00	0.00	3.64	0.00	0.00	0.00
2001/04	CPB	12.13	7.28	0.00	0.00	0.00	2.31	0.00	0.00
1997	Enterprise Fund	0.00	1.92	0.00	0.00	0.00	1.26	0.00	0.00
2002	FCL	12.13	0.00	0.00	3.03	12.13	0.00	0.00	3.03
2001	PBS-SPV	13.13	0.00	0.13	0.00	12.42	0.00	0.13	0.00
2002	Raiffeisen-BOS	17.60	0.00	0.00	0.00	10.33	0.00	0.00	0.00
1998	SEF Akova	1.18	0.00	0.00	0.00	1.18	0.00	0.00	0.00
1999/01	SEF Bosnalijek	1.66	0.00	0.00	0.00	1.66	0.00	0.00	0.00
1998	SEF Lignosper	2.57	0.00	0.00	0.00	2.23	0.00	0.00	0.00

1999	SEF Lijanovici	1.40	0.00	0.00	0.00	1.40	0.00	0.00	0.00
1997	Sarajevska	0.80	0.00	0.00	0.00	0.80	0.00	0.00	0.00
1998	Wood Agency-AL	5.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Inga	1.95	0.00	0.00	0.00	0.39	0.00	0.00	0.00
	Wood Konjuh	2.78	0.00	0.00	0.00	2.47	0.00	0.00	0.00
	Wood Kozara	1.95	0.00	0.00	0.00	1.64	0.00	0.00	0.00
	Wood Podgradci	1.34	0.00	0.00	0.00	1.09	0.00	0.00	0.00
	Wood Vrbas	1.95	0.00	0.00	0.00	0.39	0.00	0.00	0.00
	Total portfolio:	81.75	9.20	0.13	3.03	51.77	3.57	0.13	3.03

		Approvals Pending Commitment			
FY Approval	Company	Loan	Equity	Quasi	Partic.
2002	Lukavac	0.01	0.00	0.00	0.00
	Total pending commitment:	0.01	0.00	0.00	0.00

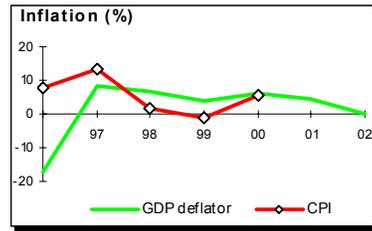
Annex 14: Country at a Glance

BOSNIA-HERZEGOVINA: FOREST AND MOUNTAIN PROTECTED AREAS PROJECT



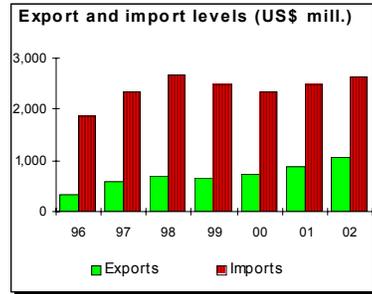
PRICES and GOVERNMENT FINANCE

	1982	1992	2001	2002
Domestic prices				
<i>(% change)</i>				
Consumer prices
Implicit GDP deflator	4.3	0.0
Government finance				
<i>(% of GDP, includes current grants)</i>				
Current revenue	33.4	37.9
Current budget balance	-0.6	0.7
Overall surplus/deficit	-7.2	-8.1



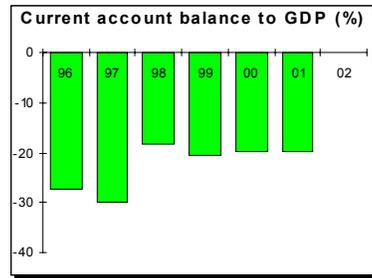
TRADE

	1982	1992	2001	2002
<i>(US\$ millions)</i>				
Total exports (fob)	877	1070
n.a.
Manufactures
Total imports (cif)	2,485	2,619
Food
Fuel and energy
Capital goods
Export price index (1995=100)
Import price index (1995=100)
Terms of trade (1995=100)



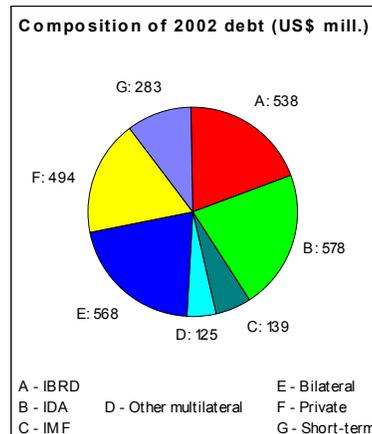
BALANCE of PAYMENTS

	1982	1992	2001	2002
<i>(US\$ millions)</i>				
Exports of goods and services	1,274	1,471
Imports of goods and services	2,617	2,809
Resource balance	-1,343	-1,338
Net income	223	252
Net current transfers	168	204
Current account balance	-952	..
Financing items (net)	953	..
Changes in net reserves	-1	-38
Memo:				
Reserves including gold (US\$ millions)
Conversion rate (DEC, local/US\$)	2.2	2.1



EXTERNAL DEBT and RESOURCE FLOWS

	1982	1992	2001	2002
<i>(US\$ millions)</i>				
Total debt outstanding and disbursed	2,225	2,725
IBRD	540	538
IDA	443	578
Total debt service	299	165
IBRD	36	45
IDA	3	4
Composition of net resource flows				
Official grants	431	..
Official creditors	-109	72
Private creditors	4	6
Foreign direct investment	222	..
Portfolio equity	0	..
World Bank program				
Commitments	124	102
Disbursements	62	97
Principal repayments	5	23



Annex 15: Incremental Cost Analysis
BOSNIA-HERZEGOVINA:
FOREST AND MOUNTAIN PROTECTED AREAS PROJECT

The Project Development Objective is to strengthen protected area management of forest and mountain ecosystems through an improved management framework, an increased area under formal protection, and mechanisms and capacity to conserve these ecosystems in the long term.

The GEF Alternative will: (i) support PAs via financing infrastructure and fundamental planning studies for the establishment of new PAs; (ii) build management capacity and public awareness of biodiversity conservation; and (iii) strengthen the capacity to conserve and manage biodiversity at local, national and trans-boundary levels and establish a regional cooperation for Forest Ecosystem Conservation. This will include establishing ecologically effective PAs, integrating biodiversity conservation into forestry inside and outside of PAs, improve monitoring of threatened flora and fauna, and effect their recovery, and improving public awareness of BiH's biodiversity.

The GEF Alternative intends to achieve these outputs at a total incremental cost of US \$7 million, to be financed by the GEF (US \$3.5 million), and co-financing from government (US \$1 million), and bilateral and other project sources (US \$2.5 million). The proposed GEF Alternative should be viewed as complementary to ongoing activities in the target regions of BiH.

2. Project Context

The recently completed National Environmental Action Plan (NEAP) identifies the sustainable development of forest areas together with the improvement of environmental management and the protection of biological landscape diversity as priorities, which are in line with the new project. Forest resources are amongst the richest in Europe in terms of their extent and variety relative to the size of the country, covering almost 50% of the land area, and as such, are one of Bosnia's main natural resources. This compares with 24% for pasture land, much of it close to forest areas, and only 10% for arable land. About 80% of forest and other wooded land is State-owned. The remainder is owned by a large number of individual private owners that will not be within the scope of this project

BiH's biodiversity is currently insufficiently protected and under-valued. At present there are more than 20 PAs covering only about 0.55% of the territory. The categories of these PAs range from Bird Reserves to Strict Nature Reserves with two National Parks (NPs) in RS (Kozara and Sutjeska). The recently published NEAP recognizes the importance of biodiversity, natural and cultural heritage, the threats and the need for expansion the area for conservation and protection. The ratification of the Convention of Biological Diversity can be seen as one step in this direction, since it will facilitate access to GEF grant funds.

A new legal framework has been set up with a new Law on the Protection of Nature for RS, which was adopted in July 2002. It stipulates the revitalization, protection, preservation and sustainable development of landscapes, units of natures, plants, animals and their habitats as well

as other components of nature that are part of the environment. A similar law is currently under review to be passed in the Federation. Also the protection of forest biodiversity is regulated by the applicable Law on Forests, as well as by the Hunting and Fishing Laws. The RS Constitution and the Law on Forests stipulate that forests and forestland are a public good which enjoys the special care and protection of the state.

The challenge is to manage existing and proposed PAs effectively, to develop participatory approaches to PA management, create new and or expand the system of PAs and to incorporate biodiversity conservation into the production landscape.

3. Baseline Scenario

The primary objective of the forest organization and management reform currently underway in BiH with IDA support is to increase revenues from forest resources, improve forest management, and enhance developmental benefits through participatory approaches in forest land use planning. Regardless of the Government's commitment to biodiversity conservation, without the establishment of an extended network of PAs, biodiversity-rich natural ecosystems would not be sufficiently protected from the major transition-related threats that are anticipated over the short and medium term. Government would be unable to commit sufficient budget to establish new PAs and strengthen the management of existing National Parks, and existing Government and NGO groups concerned with conservation would remain weak, ineffective, uncoordinated, and isolated. In the absence of this project, expected impacts (resulting from changing land use, including forestry and tourism) would result in loss of biodiversity, and ecological corridors necessary to maintain viability of populations and ecosystems may be irreversibly disrupted.

As a consequence of the current course of action, regarded as the Baseline Scenario, BiH's diverse and abundant forest biodiversity will likely continue to suffer from unsustainable timber and fuelwood harvesting and associated disturbance; unmanaged hunting; and all resulting in habitat loss and fragmentation. The project will, therefore, lead the way to establishing more PAs in BiH and constantly improving the network of PAs.

Costs

The cost of the Baseline Scenario is approximately US \$1 million, which is the average annual total budget contribution from central and local authorities for all PAs in Bosnia-Herzegovina at present. This budget is already insufficient for proper management of existing parks. If comparable formulas are used to determine budget support for new parks, it is clear that they will be significantly under-funded. One particularly important cost of the baseline is that in the absence of sufficient budgets, existing PAs are somewhat reliant on forest enterprise revenues to fund their operations. This leaves the PA management in a position of relatively less bargaining power regarding harvesting operations.

Benefits.

Under the Baseline Scenario, the main observable benefit would be in some forest enterprises, particularly the Sarajevo Sume. With the establishment of a PA in the Igman mountain complex, this forest enterprise could see some of its harvesting potential restricted. That said, the enterprise management is preparing itself for this eventuality, and strongly supports a PA.

Certain activities being undertaken through the FDCP will also contribute to improved management in the PA system. This will come from implementation of the participation plan, and, through recommendations from the PA financing study, strategies for improved financing for park operations. Ongoing activities to identify and manage High Conservation Value Forests would continue, but without the opportunity to significantly increase either the area of HCVF under proper protection, or undertake needed training to manage whatever areas are identified

4. Global Environmental Objective

BiH ratified the Convention on Biological Diversity in 2002. A National Biodiversity Strategy / Action Plan (NBSAP) is being developed. It identifies the project regions as centers of biodiversity, and the project activities as the highest priority for improving the protection of the threatened forest ecosystems. The Forest Sector Strategy, prepared as an input for the NEAP, identifies the need to develop interdisciplinary forest planning, including through the integration of biodiversity conservation.

The Global Environmental Objective of this project is to preserve the globally significant biodiversity, critical forests and mountain ecosystems located in the territory of BiH. The project will support in-situ conservation and sustainable use by strengthening and expanding PAs in BiH, the project is consistent with the objectives of the GEF Operational Program Number 3 Forest Ecosystems and Operational Program Number 4 Mountain Ecosystems.

Project Scope:

The total cost of the GEF alternative is estimated at US \$6.9 million:

- (i) Establishment, Expansion and Physical Improvement: Budget 1 US \$2.72 million
- (ii) Capacity Enhancement and Training: Budget 2 US \$2.76 million
- (iii) Small Grant and Outreach Program: Budget 3 US \$1.42 million

Benefits:

The GEF Alternative would build on the baseline scenario and make possible activities and programs that would not be undertaken under the Baseline Scenario. This would include strengthening capacity at the field and national levels for planning and managing land-use for conservation and sustainable use of biodiversity; establishing effective inter-sectoral participatory planning and sustainable management of natural ecosystems and associated landscapes at selected project sites and thus protecting key forest and mountain supporting participatory approaches to sustainable natural resources conservation in key protected areas; supporting environmental education and awareness programs; developing mechanisms to reduce non-sustainable resource use; and promoting eco-tourism development.

The GEF Alternative would provide the means (above and beyond the Baseline Scenario) for expanding the existing Nature Reserves and National Park and drafting and implementing of management plans. The specific objectives of these management plans are: i) conservation of the biodiversity of the ecosystems within the project region through protection and management;

ii) improved monitoring and applied research on biodiversity and effectiveness of conservation efforts; iii) establishment of infrastructure for improved biodiversity protection and development of nature-based tourism in the region; (iv) preparing and supporting PA administration and management; (v) strengthening public education and awareness; (vi) improving the integration of biodiversity conservation and agricultural activities, especially pasture management, outside of the proposed Parks; and (vii) improved coordination in the protection of biodiversity with the neighboring countries.

The project will significantly build and strengthen the institutional bodies responsible for planning and managing protected areas on a national level. It will ensure the development, coordination and sound working relations between the two Entity Governments, in order to achieve the creation of a viable and balanced biological network throughout the country. The national beneficiaries receiving assistance will be the Ministry of Ecology in the FBiH and RS and at a regional level, the individual protected area management organizations and the regional / cantonal forest enterprises. Through the project, the national appreciation of the ecological and landscape diversity of BiH will be increased and improved opportunities for environmental and conservation education will be gained.

The project will also build mechanisms and capacity to assist local stakeholders, community members, local authorities and NGOs to participate in the preparation and implementation of conservation management plans. The rural communities will benefit from the inclusion of natural resource management and local economic development into the protected area management framework. Other benefits will result from the stimulation of sustainable and compatible economic development activities such as eco-tourism within and adjacent to the protected areas. Additional assistance to local stakeholders will be provided by the establishment of a Small Grants Program to assist small business development compatible with the objectives of PAs and sustainable development as a whole. Focused training and advice to the local stakeholders will be coordinated through local Eco-Activity Incubators established by this project.

Global Benefits:

Implementation of the GEF Alternative would provide the means for establishing effective PAs and integrating biodiversity conservation objectives into regional and local development activities. Global benefits would include the recovery of forest habitats and protection of endemic threatened flora and fauna and their recovery. Benefits generated from the project would also include the promotion of local and regional cooperation in biodiversity conservation.

The global benefits of the project include the sustainable conservation and management of some of the last remaining areas of pristine and relatively undisturbed mountain / forest landscapes in Europe, the expansion of the countries' protected area which will increase the area of Illyric Mountain Deciduous Forest and extend the protected areas along the Dinaric Alps which extend from Mount Olympus National Park in Greece, to the south to Triglav National Park in Slovenia, to the north.

The project will establish trans-boundary links with PAs and relevant institutions in Croatia and Montenegro, thereby expanding the network of ecological corridors beyond its borders. Through the collaborative process involved, BiH will benefit from conservation initiatives undertaken in

these adjacent countries. Establishment of the protected areas will also ensure the protection of sites of international cultural and archaeological significance.

5. Incremental Costs

The difference between the cost of the Baseline Scenario US \$ 1 million and the cost of the GEF Alternative US \$6.9 million, US \$5.9 million represents the incremental cost of achieving sustainable global and local environmental benefits. Of this amount, the Government of BiH has committed to financing US \$ 1 million. US \$ 2.5 million is leveraged as parallel financing from bilateral donors, and US \$ 3.4 million is requested from GEF.

Incremental Cost Matrix

	BASELINE	ALTERNATIVE	INCREMENT
Benefits			
Component 1: Establishment, Expansion and Physical Improvement of Sustainably Managed Protected Areas	Limited, or no, further development of the PA system in the short-medium term (3-5 years)	At least 150,000 new hectares brought into protected status, of which approx. 50,000 will be IUCN categories I and VI, and the remaining will be mostly Category II National Park, and Category V Protected Landscape	150,000 hectares of new PAs (comprising approx. 3% of BiH territory, in line with government strategy to work towards a 7-10% coverage within 10 years, in line with EU norms)
Cost	\$0.7 mil	\$2.7 mil	\$2.0 mil
Strengthening of Capacity at Local, Entity and State Levels for Biodiversity Conservation and Sustainable Land Use Practices	Limited technical skill development, particularly in the adoption of new management techniques, both in forest and PA	Broad-based training program implemented for technical staff in all relevant sectors	New techniques to incorporate ecosystem approaches in land-use practices for forest and mountain protected areas and buffer zones developed, adopted and applied in management plans
	\$0.3 mil	\$2.8 mil	2.5 mil
Generation of Alternative Rural Livelihood Opportunities through Wise Multiple-use of Protected Areas	Limited or no opportunities to incentivize behavior change for local inhabitants in and around PAs	Implementation of the Small Grants Program	SGP, through provision of new skills, technical advice, and financial incentives, demonstrates to local inhabitants how protecting biodiversity is beneficial to the environment and can also improve their livelihoods
	0	\$1.4 mil	\$1.4 mil
Total	US\$ 1.0 million	US\$ 6.9 million	US\$ 5.9 million
Global Environmental Benefit	Government continues limited status quo and both ability and quality of PAs decreases. Forest Management and	An integrated forest management and conservation strategy will be designed and implemented that will draw attention to biodiversity conservation needs and	Endemic biodiversity of global significance will be preserved in the forest landscapes of BiH

	Regional Development Plans would not take into account biological diversity under threat	opportunities. Without GEF funding the critical biodiversity conservation efforts would drastically constrained as the BiH government is forced to act in favor of short term horizon rather than long term sustainability.	
		US\$ 3.4 million	US\$ 3.4 million
Domestic Benefit	Minimal alternative income opportunities	Integration of biodiversity conservation into forest management strategy will preserve sustainable use options for economically important endemic forest species and enable access to new sources of income, such as eco-tourism.	Increased revenues from forest resources, improved forest management, and sustainable developmental benefits through participatory approaches in forest land use planning.
	US\$ 1.0 million	US\$ 3.5 million	US\$ 2.5 million

Annex 16: STAP Roster Review
BOSNIA-HERZEGOVINA:
FOREST AND MOUNTAIN PROTECTED AREAS PROJECT

**Review of Project Appraisal Document for a
Forest and Mountain Protected Areas Project in Bosnia and Herzegovina**

STAP Reviewer: Jeffrey A. McNeely, Chief Scientist, IUCN

1. Scientific and technical soundness of the project

Generally speaking, this project is scientifically and technically sound. But I did find some issues that were inadequately considered. The major issues are discussed in the following paragraphs.

Lack of a systems plan

While the areas that have been selected for attention under the project all sound very important, and probably are the most appropriate sites for the project, it still would seem to have been useful to include in the project the preparation of a protected areas systems plan for Bosnia and Herzegovina. A protected areas system plan is the design of a total reserve system covering the full range of ecosystems and communities found in Bosnia and Herzegovina. The systems plan should identify the range of purposes of protected areas and help to balance the different objectives. It should also identify the relationships among the components of the protected areas system, including between individual areas, between protected areas and other land uses, and between different sectors and levels of the various stakeholders in Bosnia and Herzegovina. It should help demonstrate important linkages with other aspects of economic development, and show how various stakeholders can interact and cooperate to support effective and sustainable management of protected areas. A protected areas systems plan can help establish priorities for a workable national system of protected areas. It would provide the framework within which the various areas proposed for attention under the GEF project would relate to the larger picture.

A national protected areas system plan can also be an invaluable tool for communicating with decision makers, the private sector, and the various other interest groups in various parts of the country. The process of preparing a systems plan will also offer an opportunity for building a stronger constituency to support protected areas. Much of the necessary work has already been done in preparing the project appraisal document, so preparing the national systems plan should not be a terribly time consuming and expense process. A useful tool for guiding such a document is Davey, Adrian G. 1998. **National System Planning for Protected Areas**. IUCN, Gland, Switzerland. This document is available on the internet at www.iucn.org/themes/wcpa/publications. Hard copies are available directly from IUCN's World Commission on Protected Areas. (WCPA).

***Response:** Bosnia-Herzegovina (hereinafter in the responses, Bosnia) is in the process of preparing a national protected area systems plan. At the time the project was originally proposed, it was expected that such plan would have been already well-advanced, as this was*

to be done through the World Bank-funded Forest Development and Conservation Project (FDCCP), as a cornerstone aspect of the development of the National Biodiversity Strategy (NBS). However, a decision was taken in 2004 by the government to utilize instead UNEP financing NBS. Unfortunately, for a variety of reasons, this has taken a very long time to be started. Even so, the areas proposed for inclusion in the project were derived by a high-level, inter-ministerial, and inter-entity, Working Group. In its deliberations, the Working Group took account of numerous existing proposals for a future PA network.

The UNEP-funded work is now underway, and is expected that the national PA system plan will be completed by mid-2007. Although this will be too late to alter the existing proposals, the team believes that the areas proposed for inclusion in the project represent a strong technical consensus on the highest priority areas for immediate protection. The team is further highly confident that all areas proposed will be part of any future national plan. Here it should be noted that four of the six areas are already protected; one of the remaining two (Una River) has a completed Feasibility Study, paid by the Bosnian government, and the last, the Igman mountain complex, has a Feasibility Study underway.

Action. The Project Brief will more fully reflect the ongoing work through UNEP funding, to develop an integrated national PA system plan, and make more explicit ways in which the project will support that plan.

Small Grants

The small grants component of the project is excellent, and an essential element in the success of the overall project. But I was a little surprised that the project document did not even mention the concept of payments for ecosystem services. The Millennium Ecosystem Assessment has strongly supported the concept of ecosystem services, in other words, the benefits that nature provides to people. A full discussion of ecosystem services is available in the reports of the Millennium Ecosystem Assessment, but they cover provisioning services, which are the goods produced or provided by ecosystems; regulating services, such as regulation of pollinators, climate, nutrients, and extreme natural events; cultural services, the non-material benefits from ecosystems, including recreational, educational and inspirational; and supporting services, such as primary production, carbon sequestration, soil formation and so forth. The approach taken by the MA implies that ecosystem services have value to people, which in turn implies that these ecosystem services have an *economic* value that can be internalized in economic policy and the market system. Some of these services are relatively easy to quantify, though in the past they have been considered as public goods and hence have suffered from market imperfections. But the value of carbon sequestration in forests, for example, is substantial, and at a global scale, some US\$ 11.3 billion worth of carbon credits were traded on the international market in 2005. The economic value of water catchments have also been demonstrated. It would seem to be useful to explore the various options for payments for ecosystem services provided by protected areas, as a means of providing long-term financial security to the protected areas. In those that support production of forest products, including non-timber forest products, eco-labeling would both enhance the value and the credibility of their sustainable harvesting. The World Bank is deeply involved in the process of building markets for ecosystem services, and actively

promotes environmental fiscal reform (see, for example, World Bank. 2005. **Environmental Fiscal Reform: What should be done and how to achieve it.** IBRD, Washington D.C.).

The project is also seeking to reach out to the private sector, and in many parts of the world, the private sector is an active player in the market for ecosystem services, including cultural services such as natural beauty. The private sector can use ecosystem services to create direct financial income; ensure that the firm receives necessary supplies of natural resources; captures the demand for the service from clients (for example, tourists); may enable it to compensate for any negative impacts on biodiversity on a voluntary basis; improve its public image; and simply act in an ecologically responsible manner that requires it to invest in ecosystem services. A global information service on developments in new ecosystem service-based markets is available at www.ecosystemmarketplace.com. A service where providers and beneficiaries of ecosystem services can work together to capture the benefits associated with ecosystem services is available at www.katoombagroup.org.

None of this is meant to replace the Small Grants Facility component of the project, which remains well conceived. But sustainability for the existing and planned new protected areas may well depend on developing new streams of revenue, and payments for ecosystem services should at least receive an appropriate degree of attention in the project.

***Response.** The team wishes to emphasize that the Project does intend to support payments for environmental/ecosystem services (PES) as an important element of longer-term financial sustainability mechanisms. However, it has been suggested that PES be de-emphasized, because the project has a limited lifetime, it will take some time to develop this relatively complex mechanism, and in any case, such payments will likely not make a large contribution to PA revenue streams until the longer-term. Nevertheless, (PES), will be developed, as part of both the Small Grants Program (SGP), and in terms of new funding sources for PAs.*

***Action.** Preparation/Appraisal activities will continue to refine the SGP, and will focus renewed attention on early development of mechanisms for testing payment for environmental services.*

IUCN Categories

The project document mentions in several places that the full range of IUCN protected area categories will be used. This sounds like a good idea, but I do not think that this strategy should be applied too strictly. In a country where so many people are occupying the rural areas, it may be extremely difficult to establish a Category I protected area, and given the economic situation in the country, Category V areas may be much more appropriate. Perhaps a few of the core zones which are providing critical habitat to threatened species could receive strict protection, but as a zoning measure rather than a category for the entire protected area.

The project emphasizes the importance of multiple-use management of protected areas, but the IUCN category system has variable uses that are permissible. Multiple-use management is more likely under Categories IV, V and VI.

Response. *The above approach, especially the idea of zoning, is exactly what is foreseen. The only areas which are now planned for strict protection are the two small forest preserves, which already exist in this status. The other areas are clear multiple use areas which will fall, as noted, most likely under Categories IV, V and VI.*

Action. *New management plans, taking into account Feasibility Studies, Environmental Assessments, and Social Assessments, will create the specific distinctive zones within any given PA.*

2. Identification of the global environmental benefits and/or drawbacks of the project

Bosnia and Herzegovina is a sparsely-populated keystone in the Balkans, and thereby plays an important role in providing global environmental benefits, including providing habitats for endemic species of plants. Its karst ecosystems are substantial, and significant at a global scale. The fact that so little of the landscape is yet included as legally-established protected areas indicates that Bosnia and Herzegovina is a prime candidate for expanding its protected area system in a way that can contribute to conserving the globally important biodiversity of the Balkan region.

Some of the proposed protected areas are outstanding on a global scale, such as the Tara Canyon, which may be the most spectacular canyon in Europe, and the Perucica Forest, which may be one of the least-disturbed forests in the Balkans, if not all of Europe.

Response. *The team appreciates the above comment, particularly in that it reflects the client's strong belief in the opportunities presented by Bosnia's significant natural assets.*

3. Project's context within GEF goals, operational strategies, programme priorities, GEF Council guidance and the provisions of the relevant Conventions

This project is particularly relevant to the Convention on Biological Diversity, and specifically its efforts to implement Articles 8(a) and 8(b) on Protected Areas. Decision VII/28 on protected areas provides guidance on protected areas, and the programme of work on protected areas in the Annex provides additional guidance that is well reflected by the project.

Numerous CBD COP decisions on forest biological diversity also relate, including Decisions II/9, III/12, IV/7, V/4, VI/22, and VII/1. This project as designed will be entirely consistent with the guidance provided by the COP.

COP Decision VII/27, on mountain biological diversity contains a programme of work on mountain biodiversity, which covers protection, sustainable use of mountain resources, and

institutional elements that are all relevant to this project. Additional elements on information sharing may need to be incorporated in the project design.

Response/Action. *The team appreciates this confirmation of the project's conformity with key international provisions on biodiversity. Continuing preparation efforts, particularly as part of the ongoing Social Assessment, will ensure that additional methods of information sharing are reflected in project design.*

4. Regional context

As part of the former Yugoslavia, Bosnia and Herzegovina is surrounded by other countries with whom they do not always have cordial relationships. While it certainly seems sensible to have regional cooperation in protected areas, and especially trans-boundary protected areas, such regional cooperation is far from simple under the current conditions. That said, a more optimistic perspective is that protected areas could provide a means of promoting trans-boundary cooperation on shared ecosystems or on wide-ranging species, such as wolves and brown bears. The karst ecosystems shared between Croatia and Bosnia-Herzegovina would also seem to be prime targets for enhancing regional cooperation. Training of staff for protected areas may also be more effective if several of the GEF projects in the region combine their efforts, including sharing of curriculum materials. On transboundary protected areas, the project might wish to consider another IUCN publication: Sandwith, Trevor, *et al.* 2003. **Transboundary Protected Areas for Peace and Cooperation.** IUCN, Gland, Switzerland. This volume is available on the internet at the same site mentioned above.

Response/Action. *The team agrees with the above view of the potential difficulties in establishing transboundary activities. We further agree that the training programs should be designed to enable experience from other Balkan PAs to be brought into Bosnia; this strategy will be incorporated in the first year design of the training program. It should be noted that particularly in Sutjeska National Park, there is ongoing cooperation with the the Durmitor National Park in Montenegro; the project design explicitly seeks to strengthen this cooperation, especially in terms of better coordination of recreation activities between the two parks.*

5. Replicability of the project

Virtually all countries in the world now have protected areas, though Bosnia and Herzegovina have one of the weakest national systems. But the proposed project will build institutional capacity, staff competence, and new approaches to protected areas. Using the new approaches and institutional frameworks and building on the expanded technical competence of staff, it may well be expected that additional protected areas will be established. As accession to the EU becomes more likely, EU funding may lead to expanded support for protected areas. However, given the point made above about a national systems plan, replicability would seem to be most likely if there is a solid framework on how to proceed with any additional protected areas. Some of the alternative sites mentioned in the project document might be considered for such replication.

An essential element of any such replicability will be ensuring that appropriate staff are engaged, put in place, and given real career opportunities within the protected areas of the country. Replicability will also depend on building a constructive and positive relationship with other sectors, especially tourism and forestry. It will also be useful to learn lessons from other European countries who have faced similar challenges. Croatia is relatively advanced in its protected areas, with an outstanding karst ecosystem that has been recognized on the World Heritage List, namely Plitvice National Park. Plitvice is able to recover virtually all of its running costs through various forms of revenue generation.

If the Government of Bosnia and Herzegovina provides the necessary policy support to enable the protected areas to retain a reasonable share of the value of the ecosystem services they provide, then replication may be far more likely.

Response/Action. *As noted above, the national PA system plan is underway. Certainly, the central government authorities, as well as local administrations and non-governmental organizations, are increasingly aware of new funding sources (e.g. the EU). Staff in existing parks are already quite well-trained for their specific roles; the challenge will be to bring their knowledge to a higher level. This is particularly true in cases where the forest enterprises will need to take an active role in PA management (in the small forest reserves of Janj and Lom, and in Kozara National Park, especially). In addition, the project will undertake a significant effort in training new staff for new areas. Even in this case, however, it should be noted that project implementation/PA management teams are already being formed – and trained from government resources – for new skills.*

It is absolutely clear that neighboring countries' experiences will need to be leveraged, and the team especially appreciates the suggestions to look more closely at Croatia's experience. This has been done to some extent, but further collaboration/information sharing with the Croatian experts will be pursued prior to Appraisal.

At this time, the policy framework for revenue sharing between entity governments and protected areas is under revision. The PAs have argued persuasively for greater budget support from the central authorities, and it appears that this will be given. By project Appraisal, the final formulas for revenue sharing in the PAs should be completed. This will partly be based on recommendations from an ongoing international consultancy focused on providing options for financial sustainability for the overall PA system. Project design and indicators will be modified based on the final policy agreements.

6. Sustainability of the project

Most of the comments made above can be applied to the issue of sustainability of the project. The Small Grants Facility, a very important element of the project, is unlikely to be sustainable without project funding. But if the small grants are used to develop commercially viable ways of managing the benefits from ecosystem services provided by the protected areas, then sustainability is far more likely. An additional element in the project to

examine the economic benefits of the multiple ecosystem services provided by the proposed protected areas would be a significant contributor to the sustainability of the project.

The fact that other donors are also active in Bosnia and Herzegovina, including the Government of Italy, USAID, and JICA, indicate that further possibilities for support of protected areas may also be possible, and this project may help to improve the design of subsequent projects.

***Response.** To-date, project design has focused on the modalities for executing the SGP, with less focus on longer-term sustainability. However, the Bank team, and the client, agree with the above comment that the SGP will have a difficult time being sustainable without project funding. It is expected that experience gained from the project will enable Bosnia to leverage additional sources of finance for similar grant-making activities in the future. This might be from bilateral sources. Importantly, such grants are regular features of a number of EU pre-accession instruments which will become available to the country during the project implementation period.*

***Action.** Remaining preparation will place greater focus on the long-term sustainability of the Small Grant Program. Additionally, the financial sustainability consultancy noted above is expected to make recommendations on this topic.*

7. Linkages to other focal areas

One of the most obvious links of the project is to climate change, which is both a challenge to protected areas (because the climatic conditions may influence the distribution of the species that the protected areas are established to conserve) and an important justification for protected areas (because they may offer opportunities for enabling ecosystems to adapt to changing climatic conditions). As discussed above, many of the forested areas may be important in terms of carbon sequestration. It is possible that some of the habitat restoration issues may benefit from the Clean Development Mechanism under the Kyoto Protocol. The threat to endemic plant species, particularly in the mountain areas, will require particular attention as climates change.

In terms of international waters, some of the rivers in Bosnia and Herzegovina do flow into neighboring countries, and the protected areas may help ensure that the quality of water is at an acceptable level. But it must be recognized that this is a minor link.

In terms of land degradation, the biggest problem is with land mines, which still are a problem in several hundred thousand hectares and provide a significant threat to developing such areas for the conservation of biodiversity. On the other hand, they also hamper other forms of development, and may serve as de facto reserves. But land mines are also a significant source of pollution as they degrade, so efforts at de-mining should continue and expand. The project addresses all four of the strategic priorities of the GEF operational strategy on biodiversity. The project is directly addressing protected areas (SP1); the work that it is doing to mainstream forests and agriculture into the new protected areas address SP2

on mainstreaming biodiversity; the project includes a significant element of capacity building (SP3), and the project will seek to develop best practices for protected areas (SP4).

The project will also address OP2 on coastal, marine, and freshwater ecosystems, though in Bosnia and Herzegovina the coastal and marine component is miniscule, while the freshwater ecosystems are very important. The project also addresses OP3 on forest ecosystems and OP4 on mountain ecosystems. In terms of OP13 on conservation and sustainable use of biological diversity important to agriculture, the project document contains relatively little discussion of non-timber forest products. But medicinal plants and edible fungi are likely to be significant components in many of the proposed new protected areas. This might require some further attention.

Response/Action. *The team is in full agreement with these comments. With particular reference to climate change and carbon sequestration, this is something which might be able to be developed in the future, depending on what kinds of habitat restoration ultimately occurs in a given PA. However, our present understanding is that carbon sinks projects are not highly favored, even under the Clean Development Mechanism. The Bosnian government is aware of some opportunities to leverage carbon funding, and our ongoing dialogue will continue to engage on this point.*

It is certainly the case that landmines remain an important challenge. We note that overall, the only park with any significant remaining landmine issues is the Igman mountain complex outside Sarajevo. Demining efforts are ongoing there, with clear “Do Not Enter” areas (marked in red tape with “skull and crossbones”), some of which are in remote locations, and some of which are in locations close to current/potential future, recreation areas. The project does not propose to directly support any demining. Nevertheless, project support for new management plans will take direct account of demining activities.

Non-timber forest products (NTFPs) are an important source of livelihood enhancement for some of the population, including both those living in/near PAs, and locally-based tourist visitors. At present, the two existing national parks (Sutjeska and Kozara) have well-established procedures for collection of NTFPs. As the project will primarily strengthen their management capacity, and provide some much-need asset capitalization, no conflicts are foreseen about this topic. In the new parks, feasibility studies provide evidence of some utilization of NTFPs, but they do not suggest that this is a barrier to park establishment, nor do they indicate any serious conflicts. By project Effectiveness, a Process Framework tool will be put in place, to mitigate effects of any potential restrictions which might arise in any PA.

8. Linkages to other programmes and action plans at regional or sub-regional levels

Bosnia and Herzegovina forms part of the Pan-European Biological and Landscape Diversity Strategy (PEBLDS), and has the potential to expand its participation in this important programme. Significant European Union funding supports this effort, and a PEBLDS meeting was held at the end of February 2006 in Croatia, which was attended by colleagues

from Bosnia and Herzegovina. Along with Natura 2000, such pan-European efforts can offer considerable support to this project.

Response. *Bosnian experts in multiple fields related to forestry and biodiversity are active in a number of fora, including those above. This has expanded the authorities' understanding of other programs, and is expected to continue. Further, the project will indeed provide support for initial identification of sites for inclusion in Natura 2000. This will be clarified in the Project Brief.*

9. Other beneficial or possible environmental damaging effects

The concern about landmines has already been mentioned. A potential conflict with the wood-processing industry could be addressed through seeking appropriate certification, such as the Forest Stewardship Council (www.fsc.org).

Another issue that will require some attention is the relationship between the various ministries and level of government, including between the entities. The governance complexity will provide some management challenges that will need to be addressed. The fact that the project will be executed by the Ministries of Agriculture, Forestry and Water Management, without the Ministry of Environment, may complicate relationships.

Some attention will also need to be given to the balance between patrolling and enforcement on one hand, while building understanding and support from local people on the other hand.

At least some of these protected areas have considerable potential for winter tourism, as evidenced by the 1984 Winter Olympics held in Sarajevo. The possibility of over-development will need to be considered, especially if large areas of forest are cleared in order to make more ski runs. The distribution of endemic species will need to be particularly considered.

The project document says nothing about invasive alien species, but this is a problem for protected areas throughout the world, and certainly should be considered as one of the important management issues, especially given the importance of the endemic Balkan flora.

Response. *The project design has tried to be sensitive to the competing claims between conservation and forest utilization, in some of the areas. It is indeed the case that in the existing national parks, an important revenue source is fees from timber extraction. This process is long-standing, and in these parks, there is very good coordination between park management and forest enterprises, and this is expected to continue. In the parks proposed for establishment, the final management arrangements are still being determined. It is likely that in both Una and the Igman mountain complex, timber harvesting will continue to play an important role. That said, the forest enterprises are supportive of park establishment, as it is not expected that they will "lose" significant assets in the process.*

The Bank, through the FDCP, is very heavily engaged in overall governance improvements in the forest sector, including harvesting and wood processing. These improvements will have numerous positive implications for the management efficiency of the PAs.

The complexity of the implementation arrangements is due to the reality of the complex administrative structure in the country. However, we note that the ministries of agriculture will not be the primary implementation authority; this will rest with the entity ministries of environment and physical planning. The ministries of agriculture currently contain the project implementation units for ongoing projects, and preparation has utilized their expertise. During implementation, even procurement and financial management is planned to be organized in dedicated “project implementation teams/units” in the ministries of environment. Importantly, most of the day-to-day operations will be undertaken at the PA level, which is most appropriate.

- *Action. The Project Brief will be revised to make these arrangements more clear.*

The point on winter tourism and potential overdevelopment of the Igman complex is important. However, no “large clearing” is foreseen, even taking into account current development of the high-density tourist areas. Bosnia’s environmental regulations, assisted by the Environmental Management Plan Framework being developed at present, will help to guide new construction so as to minimize environmental disruption (including endemics). Even so, we would emphasize again the multiple-use nature of these parks, and the reality that especially for Igman, the country sees increasing tourism there as an important potential driver for economic growth in the area.

10. Capacity building aspects

The project clearly intends to include a significant element of capacity building, but this has not yet been fleshed out to much detail. In addition to appropriate training for all categories of protected area staff, it might also be worth considering to incorporate conservation elements in the school curriculum at all level. It would also be helpful to support appropriate elements in the non-governmental sector, including youth groups; these are often the strongest supporters of protected areas and their capacity is well worth considering.

***Response.** It is indeed correct that the capacity building is not yet well-defined. The full training program for the first year will be designed by project Appraisal. Subsequent needs will be determined on a yearly basis. The team very much welcomes the suggestion on inclusion of NGOs and youth groups; the Bank is actively engaged with youth groups in the Balkans, and ongoing preparation will make a more concerted effort to collaborate with those efforts.*

11. Innovativeness of the project

The innovativeness of the project comes from its location in a country that is emerging from a war between 1992 and 1995; has a very small amount of its territory in the protected area

system; and is seeking to use protected areas as a foundation for its further economic development. The fact that many European tourists drive to the Balkans for vacations may offer some innovations for linking protected areas to European tourism. The fact that protected areas are run by “National Park Enterprises” may offer creative opportunities for developing new funding mechanisms, especially if these are linked to payments for ecosystem services. The Small Grants Facility will also offer multiple opportunities for innovation, and it is important to ensure that the allocation of these small grants does not become overly bureaucratic.

***Response.** The team appreciates this understanding of the significant tourism potential in Bosnia. As noted before, payment for ecosystem services will be explored further, and will be included as one of the SGP themes. Present design of the SGP is intended to be reasonably straightforward, and efforts will be made to ensure that the specific operational modalities are not overly bureaucratic.*

CONCLUSION

This project is an extremely important one for Bosnia and Herzegovina, offering it an opportunity to join other European countries with an appropriate system of protected areas. The sites that have been identified are likely to be the most important ones, but a comprehensive system plan for the country would be helpful in showing how the various protected areas relate to each other. In terms of the sustainability of the protected areas system, the concept of payment for ecosystem services is well worth considering and would offer the project a new dimension of innovation. Such an approach may be especially relevant in establishing a new system when many options are still open.

