UNDP Project Document

UNDP-GEF Medium-Size Project (MSP)

Government of Turkey
United Nations Development Programme

PIMS 1988: Enhancing Coverage and Management Effectiveness of the Subsystem of Forest Protected Areas in Turkey's National System of Protected Areas

Brief description

Forests are among the most significant of Turkey's ecosystems in terms of biodiversity but are under-represented in the PA system. Despite their significance, the total extent of forest areas benefiting from some form of protection is less than 4% of the national forest cover. As part of a regional Mediterranean forest gap analysis aimed at identifying ecologically representative forest areas not covered under the protected area system, 9 important 'gaps' or 'hot spots' were found in Turkey in terms of forest protection. In 1999, as Turkey's Gift to the Earth, the Government made a commitment to establish or extend protected areas at the nine identified forest hot spots.
It is estimated that nearly half of Turkey's forests are degraded due to intensive use of resources. Turkey's forest biodiversity faces several threats including overgrazing, cutting, and encroachment. The root causes behind these threats include poverty in forest villages and lack of clear land tenure, which lead to ongoing disputes among stakeholders. However, the national system still does not include the 9 'hot spots'. The inclusion of these areas in the PA system, and the institution of effective conservation regimes geared to threat mitigation are fundamental to securing long term protection. The combined effect of inadequate PA coverage and management approaches that are not geared to effective threat abatement constitutes an over arching barrier to enhancing the management effectiveness of the PA system. The commitment to addressing the coverage gap and improving management effectiveness is clearly articulated in GoT's decision to designate KMNP, and extend this effort to the other 8 forest hot spots in the country. While the Government is committed to expanding the PA estate to improve bio-geographic representation, it needs support from the international community to establish management systems and approaches attuned to conservation needs in these areas. The normative solution proposed by this project will fulfill this need, working to develop and demonstrate the efficacy of new management approaches.

The project aims to enhance coverage and management effectiveness within the Forest Protected Areas sub system by demonstrating cost-effective management approaches in Kure Mountains National Park (KMNP) and then replicating to the remaining 8 forest hot spots. KMNP has been chosen as a demonstration site because: (i) it represents the best remaining example of the 'deciduous and coniferous forests of North Anatolia' ecoregion as well as the best remaining example of the highly endangered karstic mountain areas of the "Black Sea Humid Forests" ecotype; (ii) it is broadly representative of different socio-economic, ecological and institutional conditions at the other intended forest PAs, implying that the management paradigm developed there can easily be adapted for employment at the other sites once it has been tried and tested; and (iii) GoT has already taken several important steps in the recent past to secure the PA, including by establishing an on-site management presence.

The project will contribute to achieving global environmental benefits by enhancing the management effectiveness and sustainability in 117,000 ha of land newly designated as forest protected areas in Turkey and indirectly influencing approximately an additional 1,076,838 ha of future forest protected areas covering globally significant forest ecosystems, through up-scaling and replication of best management practices. Expected project outcomes are as follows: Outcome 1: Cost-effective conservation management approaches for forest protected areas are designed, piloted and adopted; Outcome 2: Sustainable natural resource management approaches demonstrated in buffer areas; and Outcome 3: Lessons learned from demonstration work in the first established forest PAs are disseminated to the other forest hot spots in Turkey, contributing to the maturation of the PA system of Turkey.

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List of Acronyms

APR	Annual Project Report
AWP	Annual Work Plan
BNRMP	Biodiversity and Natural Resources Management Project
DHKD	Turkish Society for the Conservation of Nature
DHKV	WWF-Turkey
EIA	Environmental Impact Assessment
FLR	Forest Landscape Restoration
FPA	Forest Protected Area
GDAEC	General Directorate of Afforestation and Erosion Control
GDEIAP	General Directorate of Environmental Impact Assessment and Planning
GDF	General Directorate of Forestry
GDFVR	General Directorate of Forest-Village Relations
GDNCNP	General Directorate of Nature Conservation and National Parks
GEF	Global Environment Facility
GoT	Government of Turkey
HCVF	High Conservation Value Forest
IUCN	The World Conservation Union
IR	Inception Report
KMNP	Kure Mountains National Park
LC	Local Committee
LIU	Local Implementation Unit
LTDP	Long Term Development Plan
METT	Management Effectiveness Tracking Tool
M&E	Monitoring and Evaluation
NBSAP	National Biodiversity Strategy and Action Plan
NGO	Non-Governmental Organization
NPAS	National Protected Areas System
PA	Protected Area
PDF	Project Development Facility
PIR	Project Implementation Review
PMU	Project Management Unit
PSPA	Presidency of Specially Protected Areas
RAPPAM	Rapid Assessment and Prioritization of Protected Area Management
RCU	Regional Coordinating Unit
SC	Steering Committee
TPR	Tripartite Review
UNDP	United Nations Development Program
WWF	World Wide Fund for Nature

SECTION I: ELABORATION OF THE NARRATIVE

PART I: Situation Analysis

Environmental Context

1. Turkey is shaped by the Anatolian Mountains in the north and the Taurus Mountains in the south, with the two ranges running parallel to each other. It has a total land area of 779,452 km^2 and is surrounded by seas on three sides: the Black Sea, the Marmara, the Aegean and the Mediterranean. Due to its highly strategic bio-geographical position at the crossroads of three continents, Turkey is one of the most important countries in the temperate world in terms of floristic diversity. The number of vascular plant species in the country is about 9,0001 of which one third is endemic, nearly 1,700 are rare and 12 are extinct. 75% of the 12,000 plant species that occur in the whole of Europe are in Turkey. The global importance of Turkish ecosystems to nature conservation has been proved by the existence of two terrestrial (Caucasus and Mediterranean) and one marine (Mediterranean) Global 200 Ecoregions, which are recognized by WWF as the most important ecoregions on earth in terms of biodiversity conservation.

2. The national network of protected areas in Turkey consists of 1,712 protected areas covering a surface of 4,085,378 ha, representing 5.0% of the national landmass (Table 3). However, the protected areas designated and managed according to the National Parks Law (No. 2873) with a primary objective of biodiversity conservation (Nature Reserves, National Parks, Nature Parks and Nature Monuments, corresponding to IUCN management categories I-IV) – cover a mere 1% of the national territory.

Table 2: Categories of protected areas in Turkey and coverage

Type of protected area	Number	Coverage (ha)	% of national territory	Legislation
1. National Parks	36	808,172	0.99%	N. Parks Law 2873
2. Nature Parks	17	69,505	0.09%	N. Parks Law 2873
3. Nature Reserves	34	81,861	0.10%	N. Parks Law 2873
4. Nature Monuments	102	52	0.00%	N. Parks Law 2873
5. Wildlife Conservation Areas	--	Under prep.	--	Terrestrial Hunting Law 4915
6. Wildlife Development Areas	88	1,600,000	1.96%	Terrestrial Hunting Law 4915
7. Protective Forests	56	210,192	0.26%	Forest Law 6831
8. Gene Conservation Forests	188	25,703	0.03%	Forest Law 6831
9. Seed Stands	337	45,858	0.06%	Forest Law 6831
10.Specially Protected Areas	14	1,083,935	1.33%	Barcelona Convention
11.Ramsar Sites	9	160,000	0.20%	National Regulation for Protection of Wetlands
12.Natural Sites	831	Not available	--	Law for Protection of Cultural and Natural Assets 2863
TOTAL	1,712	4,085,378	5.02%	

3. About 27% of the land area of Turkey is officially recognized as forest land. Forests are among the most significant of Turkey's ecosystems in terms of biodiversity. A variety of forest ecosystems from lowland alluvial to high mountain forests can be found in the country, altogether covering 21 million hectares. However, the total extent of protected forest areas is less than 4% of the national cover. The regional Mediterranean forest gap analysis organized by WWF's Mediterranean Programme Office,

[1] For comparison: UK has 2,000 vascular plant species and the entire European continent 12,000.

aiming at identifying and protecting ecologically representative forest areas not covered under existing national PA system2, listed 40 important 'gaps' in forest area protection, a list which was later reduced to nine 'hot spots.' These are:

Table 3: Forest Hot Spots Identified by WWF Gap Analysis

	Forest hot spot	Area (ha)	Status (protected or not)	Management authority	Type of forest ecosystem
1	Kure Mountains, Kastamonu	117,000	37,000 ha National Park	GDNCNP	Black Sea Humid Karstic Forest
			80,000 ha managed forest	GDF	
2	Forests of Istanbul	240,000	3.000 ha Polonezkoy Nature Park	GDNCNP	Temperate mixed deciduous forest, heathland habitats, sand dunes
			46 ha Beykoz Goknarlik N. Reserve	GDNCNP	
			329 ha Kasatura Korfezi N. Reserve	GDNCNP	
			345 ha Ataturk Arboretum	Forest Research Institute	
			35.829 ha Cilingoz Wildlife Reserve (Roe Deer)	GDNCNP	
			1.451 ha Sarıyer Wildlife Reserve (Roe Deer)	GDNCNP	
			100 ha Sariyer Deer Breeding Station	GDNCNP	
			650 ha Research and Education Forest (Belgrade Forest)	University of Istanbul, Faculty of Forestry	
			The rest: Managed Forest – part of which are managed/protected for drinking water supply	GDF	
3	Ibradi-Akseki Forests Antalya	56,500	There are small protected zones: - Protection Forest Zone: 7,000 ha. Protection zones are designated to restrict timber cutting for certain reasons such as soil protection, water supply, etc for a period of time. Gene Reserves and Seed Orchards: 200 ha. The remaining areas are unprotected and managed for timber production.	GDF	Mediterranean karstic forests, maquis and shrublands
			Note: The existing Altinbesik Magarasi N. Park (550 ha) is adjacent to Ibradı-Akseki Forest. This can be extended to create a larger PA or a corridor.	GDNCNP	
4	Amanos Mountains – Hatay	411,000	Tekkoz-Kengerliduz Nature Reserve:172 ha	GDNCNP	Combination of Mediterranean forest ecosystems, maquis and relict mixed deciduous forests of the Black Sea Region
			Iskenderun Arsuz Wildlife Reserve (26.077 ha)- Wild Goat, Roe Deer	GDNCNP	
			Altınozu Wildlife Reserve (35.811 ha)- Hyaena	GDNCNP	

[2] Regato, P. 1998. Mediterranean Forest Gap Analysis (unpublished study), WWF Mediterranean Programme, Rome.

	Forest hot spot	Area (ha)	Status (protected or not)	Management authority	Type of forest ecosystem
			The rest is Managed Forest without protection status.	GDF	
5	Karcal Mountains, Artvin	99,536	25.000 ha Biosphere Reserve declared in 2005 thru the ongoing GEF-II project (there are two Strict N. Reserves: Camili Efeler 1453 ha; Camili Gorgit: 490 ha – within the Biosphere Reserve)	Protected areas are managed by GDNCNP	Temperate mixed forests of the Caucasus eoregion
			The remaining area is Managed Forest without protection status.	GDF	
6	Datca Peninsula and Bozburun	153,752	The entire area has Specially Protected Area (SPA) status (since 1990) and Natural SIT (since 1995).	Authority for SPA Ministry of Culture and Tourism	Mediterranean forest and maquis
			Marmaris National Park (33.350 ha)- declared in 1996	GDNCNP	
7	Firtina Valley, Rize	15,000	The area has Natural SIT status since 1998.	Ministry of Culture and Tourism	Temperate mixed deciduous forests of the Caucasus ecoregion
			It is adjacent to the existing Kackar Mts N. Parks (51.550 ha) which was declared in 1994.		
8	Babadag Mountain, Fethiye	26,815	Small parts of the area are under protection. The Gemile and the Butterfly Valleys are "Natural SITs". Olu Deniz (The Dead Sea) is a "Nature Reserve".	GDNCNP	Mediterranean forest and maquis, very rich in endemics
			The rest of the areas are unprotected and managed by the state for timber exploitation.	GDF	
9	Yenice Forests, Karabuk	74,235	2 small PAs: Kavakli N. Reserve (334 ha) and Citdere N. Reserve (721 ha) – both declared in 1987.	GDNCNP	Temperate mixed humid deciduous forest of the Black Sea Region with diverse tree species
			The rest of the area is managed forest.	GDF	
Total		1,193,838			

4. As a first step towards addressing these gaps in the national system of protected areas, GoT declared Kure Mountains as a National Park in 2000. The Küre Mountains fall in one of the Global 200 Ecoregions identified by WWF and the IUCN, namely the Caucasus and N. Anatolia temperate forest. They are an extension of the Eastern Black Sea Mountain system to the west. The western section of the Küre Mountains, which lies in the western Black Sea region, has been identified as one of the 122 Important Plant Areas (IPA) in Turkey, by a recent WWF-Turkey study jointly carried out with forty scientists (IPA No.25). The global significance of the Küre Mountains' biodiversity has been highlighted by its inclusion in WWF's list of European forest hotspots for conservation. According to a WWF report, the site represents the best remaining example of the sub-eco-region identified as *'deciduous and coniferous forests of North Anatolia'* as well as being the best remaining example of the highly endangered karstic mountain areas of the "Black Sea Humid Forests" ecotype.3 Karstic areas are typically poor in vegetative cover, while the Küre Mountains, with their 1000 m thick Jurassic-Cretaceous era limestones not only demonstrate typical karstic properties, but are also covered with lush forests due to the humid climate.

[3] WWF. 2001. *Mediterranean Forests: A New Conservation Strategy*.

5. The highest point in Küre Mountains is Yaraligoz (2,019 m), located in the eastern part of the Küre Mountains (outside the KMNP). The highest point in the western sector is Ballidağ (1,746 m) in the SW (outside the KMNP). The other peaks are lower than 1,500. Temperate and humid oceanic climate prevails on the northern slopes facing the Black Sea, while semi-continental transitional climatic conditions are observed on the southern slopes. The average annual rainfall is above 1,000 mm. The rapid flowing rivers and streams (Devrekani, Aydos, Terme, etc) have opened up narrow and deep passageways (Valla, Aydos, Lorc, etc) through the limestone. Dolines, sinkholes and cave systems (Ilgarini, Kizilelma, Cumayani, etc) are typical features of the karstic system. The vegetation structure of Kure Mountains can be categorized into three main groups: (i) Temperate oriental beech and fir forests of Western Black Sea; (ii) Pseudo-maquis formations; and (iii) Mixed forests of the karstic area, rich in biodiversity. The Küre Mountains host 40 out of 132 mammals in Turkey, including large mammal species, such as gray wolf, brown bear, Eurasian lynx, red deer, roe deer and wild boar. It is in the western part of the Küre Mountains forest ecosystem that GoT has designated the KMNP (37,000 ha) and its buffer zone (80,000 ha), falling within the provincial boundaries of Kastamonu and Bartin (see map in Annex 1). The core area is delineated by a range of cliffs and canyons which include pristine or semi-pristine natural forests of mixed deciduous (oriental beech, hornbeam, chestnut, maple and ash) and coniferous forests (black and Scotch pine and the endemic *Abies bornmeulleriana*). More details on the biodiversity significance of KMNP are in Annex 2.

6. GOT has already begun background scientific assessments to determine the appropriate conservation status for the other 8 forest host spots. This includes field surveys, demarcation of boundaries, basic Management Plan, and declaration of the sites under appropriate status

Institutional context

7. The Ministry of Environment and Forestry has the following mission: (i) protection and improvement of the environment; (ii) use of land and natural resources; (iii) protection and development of flora, fauna and natural wealth of the country; (iv) prevention of environmental pollution; (v) conservation and development forests and expansion of forest areas; (vi) development of forest villagers living in and around forests; and (viii) meeting the demand for forest products and development of forest products industry. The Ministry implements its mission through the following General Directorates:

- Nature Conservation and National Parks
- Forests
- Forest-Village Relations
- Environmental Management
- Environmental Impact Assessment and Planning
- Afforestation and Erosion Control
- State Meteorology Affairs
- Presidency of Specially Protected Areas

8. *General Directorate of Nature Conservation and National Parks (GDNCNP)* is responsible for the selection, designation, planning, conservation, and management of national parks, nature parks, natural monuments, and nature reserve areas under the provisions of the National Parks Law No. 2863. The GDNCNP manages each protected area under the rules of its "long term development plan" (management plan) through a network of Park Directorates. The Directorate is also responsible for the conservation of game and wildlife species within their natural habitats by making necessary decisions on hunting control throughout the country.

9. *General Directorate of Forestry (GDF):* In Turkey, almost all forests (99%) are under State ownership and managed by it on behalf of the nation according to the Forest Law No. 6831. Turkey's forests are expected to meet the collective/ communal needs of Turkish society, e.g., by supporting ecological functions such as providing water, purifying air, protecting soil, etc., while also providing economic benefits and employment for the communities. According to the Law on the Structure and

Responsibilities of GDF (No. 3234), the GDF is responsible of maintaining biodiversity, productivity, regeneration capacity, vitality and potential of forests and forest lands to fulfill relevant ecological, economical and social functions and to support other ecosystems. Recently, considerable efforts have been made to develop and implement sustainable forest management with special attention to forest protected areas (FPAs) in the country. Thus, state forests that are critical mainly for water and soil protection are declared as "Protective Forests" by a ministerial decree. No intervention is allowed in the Protective Forest areas except measures against serious pests and diseases. Furthermore, managed forests that may be vulnerable to regeneration or harvesting activities are identified as "stands with protective characteristics" so as to ban or strictly limit most forestry activities. The forest areas around the KMNP (buffer zone) are managed by GDF. GDF is responsible for the preparation of forest management plans and their implementation, including silvicultural activities, protection and maintenance of forests, production and marketing of timber and non-timber forest products, and establishing forest boundaries. GDNCNP and GDF have the primary responsibility for activities taking place within and around the KMNP. Project activities around the KMNP will be coordinated with GDF, while GDNCNP will be responsible for the Park.

10. *The General Directorate of Forest-Village Affairs* (ORKÖY): Articles 13, 34, 37 and 40 of the Forestry Law no. 6831 as well as its Annex Article no. 3 and the Law no. 2924 on "Supporting the Development of Forest Villages" lay down the basis of measures to be adopted to arrange relations between forests, forestry management and people living in forest villages. Under these arrangements, the ORKÖY provides credit to forestry-related development activities through its peripheral units. This line of credit includes loans given for beekeeping, milk production and fattening of cattle and small-headed animals. Interest rates in ORKÖY credits are lower than those applying to loans given by banks and credit cooperatives and the repayment of loans depends upon the particular line of activity.

Policy and legislation context

11. Land within the boundaries of the national park are designated, managed, and protected under the provisions of the National Parks Law (no.2873). The Terrestrial Hunting Law (no. 4915), the Law on Forests (no. 6831), the Law on Environment (no. 2872), the Law on the Protection of Natural and Cultural Entities (no. 2863), the Law on Water Products (no. 1380), Law for Supporting Development of Forest Villagers, Organic Law of the Ministry of Environment and Forestry, Organic Law of the General Directorate of Forestry, Tourism Encouragement Law, and the Land Cadastre Law have implications for the protection and management of natural resources in and around protected areas. Details on relevant legislation are provided in Annex 8.

Socio-economic context

12. In Turkey, all forests are under the proprietorship of the State and managed by it on behalf of the nation. Rural people may provide for their fire and building wood needs from forests, derive income from various forestry activities and benefit from other forest products. In Turkey, about 7.6 million people live in 20,000 villages located in or near forested areas; they constitute the "poorest" segment of the entire rural population. The socio-economic situation in KMNP is similar to that observed in the other 8 hot spots. While KMNP itself does not contain any villages or other human settlements, the buffer zone that has been defined around the Park includes about 60 village communities. The inhabitants of these villages stand to be most affected by the project and are therefore considered key project stakeholders. A survey conducted under the PDF-A phase has provided a baseline picture of key issues facing these communities.[4] The study looked at eight districts within Kastamonu and Bartin Provinces, together covering KMNP, its buffer zone and additional areas beyond.[5] See Annex 3 for a detailed description of the socio-economic context.

[4] Karabıyık, Ertan and Çetinkaya Özgür. February 2003. "Socio-economy of the Kure Mountains National Park Area." Technical report prepared for the UNDP-GEF PDF-A project for Kure Mountains. Mimeo.

[5] Since KMNP and its buffer zone do not correspond to administrative boundaries, it has not yet been possible to generate disaggregated data for the project area only. Additional information will be gathered at project site level during the MSP.

13. The area covered by the study, i.e., the eight administrative districts in question, which included the district centre of Bartın province, had an estimated population of 231,000 in 2000. This total includes the population beyond the buffer zone boundaries, since district boundaries do not exactly fit the boundaries of the Park and buffer zone. Thirty percent of this population lives at province and district centres, while the remaining 70 percent reside in rural settlements. Main socio-economic activities around the KMNP are summarized below.

14. *Forest extraction*: All villages in the buffer zone are subject to Article 31 of the Forest Law no. 6831, which is about the "forest villagers" who live in or near productive forests, where forestry-related activities have to be carried out according to forest management plans. Accordingly, some people in these villages have normally been employed in forestry activities and have derived income from such employment. However, due to changes in the management plans of those villages remaining within the buffer area, wood harvesting has recently been stopped and consequently this source of income has been lost. In all forest villages where there are lime trees, flowers are collected for domestic consumption and sent to relatives in Istanbul. The people involved say that branches and in some cases even trees may be cut off while collecting lime flowers. Mushroom is the major undergrowth collected by rural people for fresh consumption or canned storage, but marketing is limited. Other forest products collected by rural households include cornel and rosehip, which are consumed either as marmalade or tea. In the villages where there are wild chestnut groves, local people collect chestnuts from trees and barter them for wintertime foodstuffs (flour, rice, margarine, sugar, tea, potato, etc.) brought in by itinerant traders. Chestnut yields depend on climate and is low in dry years. The average quantity of chestnuts annually collected by each household is 500 kg and the income derived is around 400-500 YTL (US$350). Chestnuts are then shipped to big traders in Ankara and Istanbul by local traders.6

15. *Agriculture*: Agricultural land is heavily fragmented. Cereals, fruits and vegetables are cultivated on tiny plots. Wheat is the major cultivated cereal and is used for domestic consumption and as animal feed. Crop farming is not a source of cash income in any of the villages. Households returning to their villages in summer engage in crop farming, and take their surplus back to cities, thus saving on their urban consumption expenditures. Crop farming does not display any expansion in terms of gaining new farmland. To the contrary, farmlands abandoned as a result of out-migration are covered by vegetation and used as grazing land. Some old farms near forests are even developing as forests.

16. *Livestock rearing*: On average, each household had 2-3 animals, mostly consisting of cattle. The genetic composition of these animals is: domestic breed (90 percent) and crossbred and culture (10 percent). Milk yield of domestic bred animals is, on average, 3-4 litres a day. Milk cow farming is more developed in those villages where young and active people still remain. Milk is mostly used for household consumption and newborn animals are sold out in the market. In winter, animals are fed with intensive feed, dry hay and roughage produced by farmers themselves. In summer, animals are left for free grazing in forests. However, small head animal husbandry is about to disappear, which will bring positive impacts on forests and ranges.

17. *Beekeeping* is practiced in all villages, though very few households are utilizing modern techniques of beekeeping. The output is either run or combed honey. Since their surplus product is rather limited, there is no marketing problem for the time being. Honey is sold mostly to relatives and fellow townsmen living in urban centres.

18. *Spoon carving*: Wooden spoon carving out of box-tree, hornbeam and poplar is an important source of income in some of the villages. This activity usually takes place "informally" at household level and "formally" in few workshops only. The most problematic issue in spoon carving is that wood is cut 'illicitly,' according to forest guards and local people, from nearby forests. In fact, local people state that

[6] It should be noted that these are for the most part wild chestnuts, as opposed to cultivated or improved form and that they are considered to be of a somewhat inferior quality. The Forest Research Institute, working with the forestry faculty from a major university has previously conducted a research study on the possibility of utilizing some chestnut forest for improved nut production as a source of supporting income for forest villagers.

they are disturbed and uneasy about their status as illicit producers and want this problem settled in some way. They have even taken some steps for solution by organizing an association covering the producers of Harmangerisi and other neighboring villages. There is no clear data on the extent of this practice or its potential sustainability. Local people in the villages around Küre NP state that 80 percent of households produce wooden spoons on 200 days in a year and their average daily output is about 15 spoons. These spoons are sold in bulk to wholesale traders at prices of 350-400,000 TL for each in box-tree spoons and of 150-200,000 TL in others. Assuming that the total annual spoon output of a household is around 2,500-3,000, this corresponds to 1 billion TL (600 $) as annual income from spoon making. Since 1 cubic meter of industrial wood is assumed to yield 300 spoons, it can be concluded that each household uses 10 cubic meters of wood a year for spoon carving. Further, assuming that there are 1,000 households engaged in this production, total wood used for spoon production turns out to be 10,000 cubic meters a year.7

19. *Tourism*: Starting in the early 1990s, people's growing interest in nature tourism and recent publicity concerning the Küre Mountains has increased the number of visitors to the area. Services like boarding and guides are being offered by some locals, who may be keen on what tourism may bring in, but without any plan or systematic arrangement. There is no reliable information on the social, economic and ecological implications of "nature walks" intensifying, especially in summer. Yet, relevant parties (local authorities, local people, environmental protection groups and organizations) agree that such information will be essential in the near future and that there is a need to approach "eco-tourism" in a systematic manner.

Threats and root causes of forest biodiversity loss

20. It is estimated that nearly half of Turkey's forests are degraded due to intensive use of resources through the centuries. Turkey's forest biodiversity is facing several threats including overgrazing, cutting, and encroachment. The root causes behind these threats and pressures include poverty in forest villages and lack of clear land tenure, which lead to ongoing disputes among stakeholders. To some extent conservation of Turkey's fores biome is being secured by virtue of the fact that the national system of protected areas includes forested areas. However, the national system still does not include certain critical forest hot spot areas, the exclusion of which jeopardizes long term conservation of Turkey's forests. Including these areas in the national protected areas system and instituting effective conservation regimes that can address the pressures facing forested areas are fundamental to securing long term protection. The situation in KMNP largely typifies the pressures faced by forest areas in the country. In the case of KMNP there are some threats to biodiversity within the boundaries of the national park, and others that originate in the buffer zone and beyond. A detailed description of threats, root causes and barriers is in Annex 4.

Threats within KMNP

21. *Road construction (current threat)*: Until 1999, KMNP had no roads passing through it. However, a new road is currently under construction, passing directly through and bisecting the Park with a 4-5 km length of roadway. Permission for construction of this road was given about ten years ago, and subsequent attempts on the part of local environmental groups to halt construction have been unsuccessful. The threat from road construction is exacerbated by the nature of the area's geology. In terms of impacts, this road will cause fragmentation of natural forest habitats, prevent free movement of species and enable human access to formerly inaccessible forest areas, thus increasing the threats to these areas from hunting or illegal logging. Finally, small mammals and reptiles will be accidentally killed by the traffic. Nevertheless, construction of new roads is widely believed, particularly by local authorities, to be essential to provide access for tourism.

22. *Hunting (current threat)*: Several recent reports have commented on the prevalence of hunting within KMNP.8 Animals such as brown bear, roe deer, wild boar and red deer are widely hunted by local people primarily because villagers perceive wildlife as a threat than a benefit. Wild boars in particular have been

[7] Data obtained from local people and forest engineers.
[8] See Turan 2003; Putney 1998.

known to cause substantial crop damages. A traditional belief in the medicinal properties of brown bear fat represents an important incentive for hunting that species. There are no wildlife management schemes in the area, and protected species continue to be hunted.

23. *Wild plant collection (current threat):* KMNP hosts rich orchid flora, which is under threat due to collection and trade of *Himantoglossum*, *Ophrys* and *Orchis*. There is little if any supervision of this trade. According to a DHKD report (dated 1997), titled "The wild medicinal plant trade in Turkey", Turkey ranks the third largest exporter of wild collected medicinal plant material. The list of the most widely exported material also includes Orchidaceae species. Kastamonu is identified as one of the 5 principle regions in Turkey for collection of Orchids. It represents the most important origin center, with up to 1 ton of dry salep powder out of 3,750-7,500 kg of dried powder produced in Turkey annually, which represents between 10-20 million tubers used every year. Orchid species typically occur as scattered individuals within a population and rarely occur densely. Continuous and uncontrolled collection has caused a decrease in numbers towards extinction for some species. Some Turkish species are endemics or very localized, including members of the genera Comperia, Barlia, Himantoglossum, Ophyris spp. Turkey has signed the CITES agreement and recently adopted necessary regulation; however there seems to be shortages in effective implementation, such as effective control at the borders. In terms of domestic trade of wild plant species; there is a significant demand in the Turkish market for certain species such as salep (orchid bulb powder). Therefore, possible solutions may be to propagate/cultivate these species or develop alternative synthetic forms of the same material.

24. *Uncontrolled tourism and recreation (potential threat)*: Intensifying recreational use may harm natural landscapes if it is not well planned and implemented. For example, there are numerous caves in the karstic limestones, which have not yet been sufficiently investigated. Some amateur groups have made some investigations but they are not satisfactory. Some degradation has already been noted in the major caves. Uncontrolled use is still going on. The degradation will become even more severe, unless a suitable visitor management system is established. Underlying causes include the increased interest in nature tourism among Turkish citizens; and increased interest among local residents in the potential to earn income from tourism against a backdrop of limited awareness on the part of tourists and limited capacities on the part of the existing KMNP management system to regulate ecotourism.

25. *Logging (potential threat)*: Prior to KMNP's designation as a National Park, there was always a chance that logging could have been approved there. However, the threat of officially sanctioned logging within the site has now been removed. A continuing threat, however, relates to the potential for illegal logging. Currently, this threat remains a potential one, with little evidence of illegal logging taking place in recent years. However, with improved access to the area resulting from the newly constructed road and perhaps even from the opening of the Park to visitors, it will be important to remain vigilant to the potential for illegal logging.

<u>Threats primarily emanating in the buffer zone and beyond</u>

26. *Erosion due to loss of tree cover (current threat):* The site area is mainly covered with very good quality forest. However, at certain locations, predominantly in the buffer zone, due to forest destruction and subsequent landslides, avalanches and other natural disasters in the rainy season, large quantities of sediment is carried down to the rivers in very short periods of time. If the rivers flow into the sea with such a heavy sediment load then the part of the coastal strip between Cide and Kurucaşile will be adversely affected from fish habitat and recreational use points of view. Limestones in the area are surrounded by loose materials. The groundwater, which is fed by dolines and sinkholes, flows through spaces and cavities in the limestone and discharges through permeable formations, as it cannot flow down further due to the presence of impermeable layers. When the surface flow of rainfall and melting of snow is added, the risk of erosion increases in these areas. Underlying causes include intensive tree felling, conversion of forest to agriculture, and inappropriate agricultural methods.

27. *Over-harvesting of non-wood forest resources (current threat):* People residing in villages in the buffer zone harvest a range of non-wood products such as lime flowers, mushrooms, cornel, rosehip, chestnuts, and collection of box-tree, hornbeam and poplar wood for spoon-carving. Extraction

techniques may well harm or even destroy regeneration of some natural resources. This is driven by the need for generating cash income or for self-consumption.

Barriers to forest biodiversity conservation

28. One of the fundamental limitations of the national system of protected areas is that currently this system does not have adequate representation of globally significant forest ecosystems in the country9. The commitment to addressing this coverage gap is clearly articulated in GoT's decision to designate KMNP, and extend this effort to the other 8 forest hot spots in the country. However, national capacity to effectively implement this commitment is lacking. The chosen project strategy is therefore to address the weakness of the national system by including a representative forest hot spot (viz, KMNP) in the national system and demonstrating successful conservation models with the objetcive of including and replicating to the other 8 hot spots.

29. The main management challenges or barriers confronting the government in extending effective protection regimes at the eight hot spots are: (i) Systemic lack of capacity: including (a) Poor definition of the optimum role of stakeholders in protected area management to optimize management effectiveness; (b) poor institutional organization and coordination - there is a degree of duplication and ambiguity, and lack of coordinated efforts between the Ministry of Environment and Forest Protection, the Ministry of Agriculture and the General Directorate of Environmental Impact Assessment and Planning (GDEIAP); and (c) limited and inadequate zoning of protected areas to facilitate multiple environment and development objectives; (ii) Institutional and individual capacities, including: (a) Weak capacity to develop a detailed strategic and operational plan to ensure cost-effective deployment of financial and human resources; (b) limited business planning and knowledge management; (c) GDEIAP does not have the capacity to assess ecological impact of allocating certain lands to agriculture preventing them from completing territorial land use plans and; (d) collection and trade of wild plants is under the authority of Ministry of Agriculture (MoA) by taking permission from MOEF which is responsible for species protection; however, MoA provincial directorates that should supervise collection and trade do not have proper mandate; do not have technical ability to put in place a sustainable harvest regime; do not have capacity to monitor collection and trade; (e) Capacity of locals and PA authority to work together to monitor and check illegal activity is weak; and (ii) Information/ knowledge gaps, including: (a) Biological information that can provide baseline data for developing appropriate management plans for the park and for forest areas, monitoring subsequent ecological changes, and a detailed sense of the intensity and location of threats facing biodiversity is missing; (b) there is no comprehensive understanding of the extent of harvest of non-wood forest resources, its potential to generate cash income and its potential to inflict harm; (c) no knowledge of alternatives to harvesting wood for sale or self-consumption.

Baseline conservation activities

30. Under the baseline scenario, GoT funds for supporting essential PA management and operations would continue to be inadequate to fully address threats to biodiversity in the nine forest hot spots, including KMNP. While not being sufficient in and of itself to fully realize conservation objectives this baseline is critical to achieving the GEF project's global environmental objective. In the case of the other 8 forest hot spots baseline level of conservation interventions by GoT are as follows:

- Amanos Dağları (Osmaniye-Hatay-Kilis): Field survey and demarcation of boundaries; basic Management Plan; background studies to declare the site as National Park; declaration of site under appropriate status.
- Akseki-İbradı-Ormanları (Antalya): Field survey and demarcation of boundaries; background studies to declare the site as National Park; declaration of site under appropriate status.

[9] There are other systemic barriers compromising effectiveness of the national system of protected areas such as deficiencies, conflicts and gaps across the Environment Law, Range Law, Hunting Law, and Tourism Encouragement Law. However, these national-level systemic barriers are being addressed under the ongoing World Bank/ GEF Biodiversity and Natural Resource Management project.

- Yenice Ormanları (Karabük): Field inventory and demarcation of boundaries; background studies to declare the site as National Park; declaration of site under appropriate status.
- Fırtına Vadisi (Rize): Field survey and inventory; demarcation of boundaries (with Kaçkar Mountains National Park); studies on determination of conservation status; declaration of site under appropriate status.
- Karçal Dağları (Artvin): Field survey and inventory studies; cooperation with GDF to designate surrounding areas as Protected Forest; studies on determination of conservation status; declaration of site under appropriate status.
- Babadağ (Muğla-Fethiye): Recreational sites at the Forest Area declared; field inventory and survey studies; studies on determination of conservation status; declaration of site under appropriate status.
- DatçaYarımadası-Bozburun (Muğla-Fethiye): Field inventory and survey studies; background studies to declare the site as National Park; declaration of site under appropriate status.
- İstanbul Ormanları (İstanbul): Field inventory and survey studies; background studies to declare the site as National Park; declaration of site under appropriate status.

31. In the case of KMNP, when it was officially established in 2000, it was foreseen to have a Park Headquarters and 4 district level offices where enough number of Park staff and equipment would be allocated in the short term. However, the park still suffers from insufficient number of qualified staff, equipment and offices and has been deprived of an effective management presence. This seems to be the case in the years to come unless a new momentum could be generated with such a project. It has been an idle period in terms of physical development, apart from construction of a symbolic entrance gate and several signboards. Boundaries are still not demarcated. Without a comprehensive approach of such a project, the park boundaries would remain unclear on site, and the Park values would remain exposed to external threats. Given current trends, it wouldn't be possible to ensure an effective patrolling and visitation control in the park territories even after many years. Staff would remain at inadequate numbers and improperly deployed, and would continue to be poorly qualified to deal with increasing pressures and demands. It is quite unlikely that the Park staff will have the opportunity to develop their skills and capacity to ensure effective biodiversity conservation. The chances for organizing volunteers and mobilizing their capacity for nature conservation in the area would remain low. In short, the KMNP would exist on a map and would not be an effective instrument of biodiversity conservation. This project would help institutionalize the KMNP.

32. The Küre Mountains are a large landscape with various ecosystems and habitats, hosting large numbers of flora and fauna species. Although there is some data available about the presence of important species in the area, this is not based on systematic biodiversity inventories. Comprehensive biodiversity information is essential for preparing the management plan and establishing a biodiversity monitoring program, which does not currently exist. However, unless an initiative is taken, such analysis utilizing Geographic Information Systems (GIS) and Remote Sensing (RS) methods would not happen and the managers would not have sufficient and reliable information on current and optimal population levels of key flora and fauna species. Although there are universities and a forestry research institutes in the region, no coordination exists between the park management and researchers in order to utilize efforts for effective biodiversity conservation. This trend will continue for years unless an intervention is made with a conservation project. Biodiversity and natural resource data would continue to be gathered by individual researchers according to their own interests. Existing information will not be updated in many instances and key gaps in biodiversity information would remain. Data would be rather rudimentary, such as presence and absence of species and estimated population numbers, and would not be ecosystem-based. Monitoring programs would not be comprehensive or well implemented and thus the contribution of monitoring results to decision-making would be minimal.

33. In 1999, with support from the UNDP-FAO, the General Directorate of National Parks and Game-Wildlife (former GDNCNP) prepared a draft development plan for KMNP, which sets generic principles

of management and draws the boundaries on a map.10 The draft development plan also distinguishes three zones within the national park boundaries. They are the strict protection zone, low-density recreational zone, and rehabilitation zone. The plan also distinguishes a buffer zone outside the national park, consisting of wildlife conservation zone, game management zone, landscape protection zone, and ecological restoration zone. Criteria for selection, legislative basis, types of usage, management objectives, and planning decisions for each zone are determined by the development plan. It should be noted that while the external boundaries defined within this plan were used by the Ministry of Forestry when it declared the establishment of KMNP, the internal zoning, and the overall plan itself, has never been finalized or officially endorsed. The site area was designated as a National Park in 2000 under the provisions of the National Park Law (no. 2873).11

34. KMNP is the first case in which the conservation of biodiversity and stakeholder participation was given top priority while developing a new protected area. The process leading to the declaration of the PA was participatory. Local stakeholders as well as scientists joined the process. Scientists and experts (biologists, ornithologists, botanists, ecologists landscape planners, foresters, etc) made their site observations, identified key species, defined intact habitats and prepared reports which helped in drawing the boundaries of the Park as well as the zones according to their data.12

35. However, this development plan has not been officially endorsed as a management plan, nor has it been implemented on the ground since 2000. Whereas the site boundaries proposed in the draft development plan were officially accepted, and became the legal boundaries of the new park, the plan itself and its remaining elements – zoning of KMNP, establishment of a buffer zone, etc. – have not been officially adopted by the Turkish Government. There is a definite need to have an officially endorsed management plan (by updating and completing the DDP) and sub-plans on an ecotourism strategy, visitor management, feasibility of certain recreational activities (rock climbing, rafting, etc) and planning and installing recreational infrastructure (paths, signboards, etc). If the same trend continues, the status of plans and their implementation would remain unchanged. The process of developing a sustainable financial mechanism for Park management wouldn't happen without this project's intervention.

36. The Terrestrial Plans, prepared by GDEIAP, are above national park management plans in the planning hierarchy. However they are not complete yet. In order to avoid future conflicts and ensure better coordination between the GDEIAP and GDNCNP as well as GDF, the Terrestrial Plans should be completed and the Park plan and its biodiversity concerns should be incorporated into it. The terrestrial plans of the region would remain incomplete, unless Küre Mountains area is prioritized with this project.

37. The park does not still have any visitor facilities (visitor center), although it was recommended to have more than one in the Draft Development Plan, when the Park was created 5 years ago. It seems to be the case for many years in the future unless an intervention is made towards establishment of a visitor center. Given current trends, the numbers of tourists and recreational users in the KMNP would increase over the summer months without proper guiding services. Under existing poorly regulated conditions, this would continue to lead to increased loss and degradation of important habitats as a result of poor facility, litter, fires, tree felling, pollution and other related impacts including the poaching of wildlife.

38. Environmental education and awareness raising would be carried out on a very limited scale. Many key decision-makers and resource users would not be sensitized to biodiversity concerns and resource depletion issues. PA staff would not be able to make a serious contribution to awareness raising due to their absent or poor facilities, and the limited capabilities of the protected areas' staff to work in this field.

[10] Ministry of Forestry. General Directorate of National Parks and Game-Wildlife. February 1999. Kure Daglari National Park Development Plan. Ankara.

[11] As approved by the Council of Ministers in Decision 744 of 18 May 2000 and released in the Official Gazette of 7 July 2000.

[12] It did not usually happen in this way at previously established protected areas. The usual practice was sending 2-3 foresters among the NP Dept staff for field observation and declaring a protected area based on their report, in some cases with little attention paid to the question of biodiversity.

Biodiversity conservation issues would remain of a relatively low priority.

39. Commitments were made during the protected area establishment process to ensure local participation in the decision-making process. However it has not been possible to establish an operating mechanism so far. The NGOs based in the districts and villages around the Park are few (five) and do not have the capacity to be actively involved in conservation and sustainable development activities. Unless an intervention is made with this project, local communities would continue to be uninvolved in PA management. Existing conflicts between PAs and local populations will continue to increase. This will in turn inevitably lead to greater pressures on biodiversity. Without increased community involvement, volunteer programs utilizing community members for assisting in monitoring and enforcement will not be realized. Effective coordination between different organizations wouldn't be possible, such as in cases of road construction or dam building in or around the park.

40. GDF is in the process of shifting forest management planning process and methodology towards multi-functional planning (from traditional timber focused planning) throughout Turkey. Defining the criteria and indicators (guidelines) for sustainable forest management at forest management unit level is also going on. The GDF has to prioritize preparation of the multi-purpose forest management and silviculture plans of Küre Mountains, including inventory, planning and sustainable management of non timber forest products. The proposed project could provide a unique opportunity and forests of KMNP's buffer zone could be a good case to demonstrate these innovative approaches; which wouldn't happen otherwise. Internalization of environmentally appropriate approaches by both natural resource managers and users wouldn't be possible.

41. While the national park was being created, commitments were made to develop alternative sources of income for local people who are dependent on consumptive use of forest resources. However, since the establishment of the park, there has been no significant progress, which caused growing disappointment among the local people. If the expectations of local communities are not met as soon as possible, their support towards the protected area would decrease and impact on biodiversity would increase.

42. Since the legal establishment of KMNP in 2000, the following have been the main steps taken by Government, in co-operation with WWF Turkey (DHKV):

- Forming of the Park Administration has been started as suggested in the so-called Development Plan (although it is not officially approved it is being used as a reference): A N. Park Engineer was assigned in downtown Kastamonu. Very recently, another Park Engineer was assigned in Bartın. However, these engineers are also responsible for other PAs as well as tasks within their provincial boundaries. They have taken control of the Park's land from the General Directorate of Forestry.
- At present, the protection of wildlife is the responsibility of the staff of the Ministry of Environment and Forestry and of the local Gendarmerie. However, these efforts are ineffective due to the large size of the area, difficulties to access, lack of capacity and equipment.
- WWF-Turkey (DHKV), in cooperation with the local governorship, established an eco-tourism center by re-constructing an old house in Pinarbasi, as a pilot exercise. The Center, with accommodation and training facilities is currently being run by a local partnership, through a lease agreement. It is jointly supervised by WWF-Turkey, the local governorship and the Park Directorate.
- Training of 20 local nature guides from various districts, in September 2002
- Seminars on wildlife protection in certain districts
- Supporting the establishment of a local NGO: the Küre Mountains Eco-Tourism Association
- Cooperation with a local Foundation based in Ankara (Kascetvak)
- Creation of a web site to introduce the eco-touristic potential of Pinarbasi
- The Association for the Conservation of the Turkish Nature supported certified training on the importance of biodiversity for education staff around the KMNP

- Publication of the Guide Map for the Park.

PART II: Strategy

43. While GOT recognizes the importance of addressing the poor representation of Turkey's forest biome within its national system of protected areas, in order to translate rhetoric into action it needs GEF support in taking a step-wise approach to bringing into the fold critical forest hot spots. GOT has already designated KMNP and is also committed to providing appropriate protected area status to the other 8 sites, with preliminary scientific studies having commenced to this end. In KMNP, GOT has even taken several important steps in the recent past towards securing better conservation of KMNP. However, these activities have been carried out without a systematic approach or a comprehensive strategy, especially in terms of utilizing KMNP as a springboard for strengthening the effectiveness and coverage of the national system of protected areas in conserving forest protected areas. Therefore, GoT aims to benefit from GEF support to catalyze such a long-term strategy.

Project Goal, objective, outcomes and outputs

44. The **Project Goal** is long-term conservation of the most representative range of globally significant biodiversity in Turkey by strengthening the national system of protected areas. The **Project Objective** is to enhance coverage and management effectiveness of the Forest Protected Areas (FPAs) through demonstrating cost-effective approaches for effective conservation and sustainable resource management at Küre Mountains National Park and taking initial steps towards the replication of this model at the remaining eight forest hot spots. The indicators of success and risks associated with each are presented in the project's logframe in Section II: Strategic Results Framework.

Outcome 1: Cost-effective conservation management approaches for forest protected areas are designed, piloted and adopted. Through Outcome 1 the project will address threats to biodiversity within KMNP boundaries by strengthening the capacity of local people, NGOs, KMNP management, GDF, and GDNCNP for implementation of biodiversity conservation measures. The experience generated under this outcome will be shared with key stakeholders from the other 8 forest hot spots (for instance some of the other 8 hot spots are managed by institutions other than GDNCNP and GDF -- Forest Research Institute, University of Istanbul, Authority for SPA, and Ministry of Culture and Tourism) and project resources will be set-aside for including them in these activities (as mentioned under Outcome 3, Outputs 3.3 and 3.4 below).

Output 1.1: Enhanced conservation management is implemented at KMNP

This output would include a series of strategic interventions aimed at providing support for the ongoing process of establishing a management presence at the site. These activities will take place in parallel with the development of a management plan for the site (see Output 1.3 below). Recruitment of permanent staff (based on an agreed staffing table) and construction of Park headquarters and district-level offices will be completed. Office equipment, vehicles, etc., will also be procured. KMNP staff will receive training in techniques of PA management and biodiversity conservation. Another early activity will be the demarcation of external Park boundaries. Interim arrangements will be devised and implemented for patrolling and management of park visitation, pending approval of patrolling and visitation sub-plans as part of overall management plan. A volunteer program will be developed and implemented for encouraging people to provide support in undertaking various park management activities, e.g., training, education and awareness raising, interpretation, capacity building, safeguarding of the site and key species. Together, the above steps will help to institutionalize KMNP in the minds of local people, for whom it has thus far existed mainly on paper.

Output 1.2: An established and operational system for biodiversity survey and monitoring is in place

This output will build on work undertaken during the PDF-A to produce baseline assessments of floral and faunal diversity and abundance. These assessments will in turn be used to refine initially developed project indicators, which will be produced in consultation with local people and other project stakeholders. The data produced by the biodiversity survey will also be used as baseline information in developing the national park management plan (see 1.3 below) as well as forest management plans (see 2.2 below) in which biodiversity will be incorporated. A related monitoring programme will have the following objectives: (i) to provide managers with an improved, geo-referenced picture of biologically critical areas within KMNP; (ii) to provide a useful baseline from which to monitor subsequent ecological changes, and; (iii) to provide a more detailed sense of the intensity and location of threats facing biodiversity within KMNP, which will be essential for formulating threat-reduction strategies to be incorporated into the site management plan.

Output 1.3: A comprehensive protected area management plan developed and implemented for Kure Mountains National Park

A management plan will be developed for KMNP in close collaboration with all the key stakeholders. The Plan will address issues such as threat removal, development of functional zoning schemes, job profiles and management structures, proposals for pilot ecological rehabilitation measures and investment plans. The management plan will also include specific components such as an ecotourism development strategy and a visitor management plan, as well as a hunting management plan. The management planning process will be highly participatory involving a broad range of stakeholders and will be based upon the lessons learnt in the ongoing World Bank/ GEF funded Biodiversity and Natural Resource Management Project (BNRMP) concerning international best practices in management planning. The management plan will be consistent with the territorial plan of the area, which is currently incomplete and which will be prepared in parallel by the General Directorate of Environmental Impact Assessment and Planning (GDEIAP). Following the development and approval of the management plan, implementation plans will take place. Wherever appropriate, internationally recognized tools and methodologies will be used in implementing various activities. The experience of the World Bank/GEF Bioidversity and Conservation Management Project will be used. The first step will be to undertake an assessment of the type of zoning required to meet biodiversity conservation objectives. This study will determine the necessity and feasibility of establishing core areas and buffer zones, and will also articulate the purpose of the various zones. This zoning study for KMNP will provide the basis for undertaking similar assessments for the other 8 hot spots.

Output 1.4: Business plan development for the KMNP

The business plan for KMNP will ensure a match between the type of management regime being proposed and associated costs of realizing this, with the available current and future sources of revenue. An economic and financial analysis will be undertaken in this output to assess the current and potential economic value of the KMNP. This analysis will: (i) estimate the economic value of the KMNP; (ii) analyze the cost-benefits of increasing investment; (iii) investigate options for improving financing; and (iv) develop a budget and roll-out program for a sustainable financing plan for KMNP. This will demonstrate for the other eight forest hot spots how to conduct an economic and financial analsys in order to develop the most appropriate business plan.

Outcome 2: Sustainable natural resource management approaches demonstrated in buffer areas

The threats analysis has demonstrated that many of the threats to biodiversity at the site area originate not within the National Park but rather within the buffer zone and even beyond. The primary current threat in the buffer zone relates to unsustainable harvest of non-wood forest resources and soil erosion due to loss of tree cover as a result of intensive felling. Therefore, a key focus of this outcome will be on establishing sustainable forest management. In addition, there are also other potential threats in the buffer zone such as the possibility of new water impoundment projects, the opening up of new roads, and a deterioration in water quality from waste and sewage discharge from the transient (tourists) and permanent population.

While these are not current threats, it will be important for local stakeholders to maintain pressure advocating against the implementation of any development projects that could jeopardize the health of the ecosystem. Therefore, Outcome 2 will also focus on developing local advocacy capacities to minimize the adverse impact of development projects in the buffer zone. The experience generated under this outcome will be shared with key stakeholders from the other 8 forest hot spots and project resources will be set-aside for including them in these activities (as mentioned under Outcome 3, Outputs 3.3 and 3.4 below).

Output 2.1: Sustainable forest management implemented in the buffer zone of KMNP

Sustainable resource use in the buffer zone is crucial for ensuring effective protection of biodiversity within the Park. However, putting the concept of sustainability into practice is the real challenge. This is a process which necessitates a shift from policy to implementation. The new forest management plans will have to be prepared according to the principles of sustainability. Environmentally-friendly approaches need to be internalized by both natural resource managers and users, to enable a shift from unsustainable to sustainable resource use. Capacity and understanding of local authorities need to be enhanced and an effective mechanism for monitoring of natural resource use should be established. Plans and guidelines prepared under this outputs will be internalized by the Forest Department which will then implement them as part of their regular work. Activities under this output include the following. Co-financing pertaining to each activity is highlighted and the amount is indicated below:

Output 2.2 Enhanced capacity of local communities to advocate for minimizing adverse impacts of development projects in the buffer zone

The project will utilize advocacy and a targeted public awareness campaign to ensure that development projects in and around the buffer zone remain of an appropriate scale and number to guarantee conservation of key site area values. In terms of water quality, additional actions will be taken within the buffer zone to ensure that water quality within the site area meets national standards associated with designated uses. This will require an assessment of key water quality issues and definition of hot spots, particularly those that may present a threat to globally significant biodiversity. In its latter stages, the project will seek to identify and leverage additional resources for long-term management of these threats.

Outcome 3: Lessons learned from demonstration work in the first established forest PAs are disseminated to the other forest hot spots in Turkey, contributing to the maturation of the PA system of Turkey

This outcome aims to leverage the experience of KMNP to enhance the effectiveness and coverage of the national system of protected areas in terms of conserving forest protected areas. Resources under this outcome will be used to include counterparts from the other 8 forest hot spots in training and experience sharing relating to protected area and buffer zone management envisioned under Outcomes 1 and 2.

Output 3.1: Enhance inter-sectoral coordination in the terrestrial planning

As threats originating in the buffer zone lie beyond the physical and political control of KMNP authorities, long-term conservation at the site area will therefore clearly require strong inter-sectoral co-ordination among all institutions that have a mandate in the wider landscape influencing the KMNP. One of the fundamental problems in Turkey is the lack of coordination between different plans and responsible organizations. Terrestrial Plans are prepared by GDEIP and they are above N. Park management plans in the planning hierarchy. However they are not complete yet. In order to harmonize various planning and land use in the area, the project will collaborate with the relevant local authorities, including, but not limited to the General Directorate of Environmental Impact Assessment and Planning (GDEIAP) with respect to integrating biodiversity concerns into development of the territorial plan of the area. These efforts at enhancing inter-sectoral coordination must be complemented by active advocacy by local civil society for development plans that are sustainable and that minimize the harmful impact on biodiversity.

Output 3.2: Monitoring and Evaluation

45. The detailed M&E plan is presented in above and in the PartIV M&E Plan of the project Document and the budget is in Annex 5.

Output 3.3: The experience gained in threat removal is shared with the other eight forest sites

46. The project preparation process has identified an important, cost-effective opportunity to support the extension and eventual replication of achievements being made at the project's demonstration site (see Outcomes 1 and 2) at the other 8 forest hot spots. Outcome 3 seeks to take advantage of this opportunity, while complementing efforts taking place under the BNRMP (Biodiversity and Natural Resource Management Project) to introduce and disseminate international best practices in PA management. Thus, Output 3.3 will support the sharing of thematic or threat-based experience with the target replication sites. For example, demonstration work at Küre Mountains is expected to address the issue of hunting, one which needs to be addressed at many, if not all, of the remaining GttE sites. Thematic working groups will be established to help co-ordinate, and to benefit from, a set of capacity-building activities, including site visits, training sessions, etc., focused on thematic issues (e.g., hunting, water quality protection, ecotourism management, sustainable financing, etc.). Beneficiaries will be stakeholders from the target replication sites, e.g., local-level officials, NGOs, etc. Key issues arising out of thematic working groups will be shared with BNRMP staff with two specific aims: (i) linking up Küre Mountains conclusions with those of best international practices and recommendations,13 and; (ii) raising the profile of institutional and policy barriers that may be preventing the removal of threats or barriers related to hunting or other management challenges.14

Output 3.4: Improved capacity of stakeholders in the eight forest sites to apply new conservation management planning tools and methodologies

One of the important characteristics of the approach being carried out at Küre Mountains is the introduction, with participation of NGOs, of a series of new methodological approaches in forest and PA management. These include: Buffer Zone Management, Rapid Assessment and Prioritization of Protected Area Management (RAPPAM), the METT - WB/WWF Tracking Tool for Reporting Progress at Protected Area Sites, High Conservation Value Forests (HCVF), Forest Landscape Restoration (FLR), Reporting Progress Towards Good Forest management at a Landscape Scale, Pan Parks, etc. The potential value of these methodologies can only be realized to the extent that their use becomes widespread within the Turkish PA management context. This output will support measures aimed at disseminating these key methodologies and approaches amongst target stakeholders within MoEF as well as related institutions and at project sites. Activities will include workshops, training of trainers, etc. The activities regarding Output 3.4 include the following, none of which will be co-financed.

Global environmental benefits of project

47. Expected global benefits of the project will be to stabilize and rehabilitate Küre Mountains' globally significant karstic forest landscapes and its biodiversity. Flora populations and genetic assemblages will be protected and where appropriate sustainably used. Fauna populations and their natural habitats will be rehabilitated through conservation and sustainable development actions at two levels: i) within KMNP, ii) in immediate surroundings of KMNP (the buffer zone). The project, which will be a good example of public-private partnership for forest conservation, also aims to share its experience with other sites and thereby encourage its replication. The primary benefit provided by the project is related to the fact that, the future of Kure Mts outstanding karstic landscape features, natural habitats as well as flora and fauna populations will be safer and the natural resources will be sustainably used. This will contribute to the

[13] The BNRMP project will be disseminating international guidelines and best practices in various aspects of PA management. The adaptation and fine-tuning of these guidelines for the Turkish context will take place in light of experience at demonstration sites, including both Küre Mountains and the BNRMP demonstration sites. The thematic working groups will contribute to this process.

[14] Addressing such barriers will remain a key task of the BNRMP project, and will not be duplicated here.

conservation of Turkey's biodiversity and sustainable use of forest resources in general. Turkey will have a demonstrated model of effective PA management model based on stakeholder cooperation, which could be used elsewhere in the country.

48. Regional benefits: The forests of Küre Mountains are part of the Euxin section of Euro-Siberia Floristic Region and represent the best remaining examples of humid karstic forests of the Black Sea. Its protection will ensure the future of unique forest ecosystems around the Black Sea.

49. Local Benefits: The project will enable local communities to become more active participants in the management of the unique natural resources of the area and will increase their utilitarian stake in conservation by enhancing the economic benefits they can derive from conservation and sustainable use. Local communities will be capacitated to become more vocal advocates for sustainable development in the region.

Sustainability

50. GoT has demonstrated a substantial degree of commitment to goals of environmental protection, sustainable development and biodiversity conservation. A variety of significant measures have been taken in this regard, including signing of the Convention on Biodiversity, preparation of the National Biodiversity Strategy and Action Plan, National Environmental Action Plan, National Forest Programme, commitments to increase protected areas and improve their effectiveness, etc. These steps have shown a significant degree of political will in these areas. Such political will is a necessary ingredient of sustainability, without which project gains would dissipate rapidly. Despite the above, long-term sustainability will not be easily achieved. Sustainability of the protected area system remains a medium-term objective, which the present project will only contribute towards but not fully achieve.

51. Institutional sustainability: The GEF alternative involves a one-time, appropriately scaled, investment to develop the technical, managerial and operational framework for effective management of KMNP and its buffer zone through an array of capacity-building activities. The project's strong emphasis on multi-stakeholder participation will also improve possibilities for sustainability. The project will build the capacity of local government authorities and strengthen the enabling environment at the site so that frameworks and incentives are in place for the long-term management of resources. The project will also provide to opportunity for government authorities and other relevant institutions at the other sites to learn from the KMNP model, and enable replication to the other 8 forest hot spots.

52. Technical sustainability: The project places emphasis on building the capacities of local experts. The project will emphasize the need to reach a minimum critical mass of national-level expertise for management of KMNP by the time of project completion, thus eliminating the long-term need for international expertise in PA management techniques. However, this will need to be followed up following the project's completion by continued national-level training efforts to ensure that this capacity is maintained and extended.

53. Financial sustainability: The project will avoid creating high-maintenance operational systems at the project site, but will focus on essential needs for conserving biodiversity. In addition, the project will liaise with the BNRMP project to explore various mechanisms for sustainable financing, including ecotourism charges, etc., as a source of financing support to complement regular budgetary allocations. The project bwill conduct a financial and economic analysis to assess the current and potential economic value and investigate options for improving the financing of the Kure MNP initially and will develop a budget and roll-out program for sustainable financing plan for the KMNP, which will be replicated to the other forest protected areas.

Replicability

54. The replication potential of the best practices generated by the project is significant, because the practices to be developed and demonstrated will be directly relevant to other protected areas in Turkey within the national system as well as to the other 8 forest hot spots where conservation action is necessary. The project combines site-specific demonstration work with a clear aim of disseminating and replicating its own successful elements. Outcome 3 is specifically designed to achieve this goal and is

structured around the twin themes of replicating threat removal strategies and replicating the use of new methodologies.

Stakeholder involvement

55. The Ministries of Environment and Forestry, Agriculture and Rural Affairs, Culture and Tourism, Public Works and Settlement, the Governorships of Kastamonu and Bartın, forestry faculties and research institutes, governors of adjacent districts and villages headmen, national and local NGOs including WWF-Turkey (DHKV), TEMA, Wildlife Protection Association, Research Association for Rural Development and Forestry, and the Hunting Association, local press, and representatives of the local people took part in the project development process.

56. The main stakeholders involved in implementation of activities at project sites are identified in the matrix below. During the project preparation stage, a stakeholder analysis was undertaken in order to: (i) identify key stakeholders; (ii) review stakeholder interests and associated impacts on resource use, land tenure and the project; (iii) identify and mitigate possible negative socio-economic impacts on local stakeholders resulting from the project; and (iv) identify and develop opportunities for the project to benefit stakeholders. A detailed stakeholder analysis and participation plan is provided in Annex 3.

Table 4. Key stakeholders and roles and responsibilities

Stakeholder	Roles and Responsibilities
Ministry of Environment and Forestry (MoEF)-Research Planning and Coordination Board (RPCB) and Foreign Relations Department (FRD)	The MoEF will be responsible for the overall coordination of the project through its FRD while the RPCB will be represented in the Steering Committee. The MoEF is also expected to take necessary action recommended by the project.
General Directorate of Forestry (GDF) and its local units	GDF will be a member of the Steering Committee and will be responsible for implementing project activities in the buffer zone around the Park through its local units. GDF will also contribute to the project by co-funding certain project activities as indicated in the project document through its local units. The local units of GDF will be one of the main parties of all local committees.
General Directorate of Nature Conservation and National Parks (GDNCNP) and its local units	GDNCNP is one of the main partners of the project and will be responsible for implementing project activities in the Park through its local units. GDNCNP will also be a member of the Steering Committee and contribute to the project by co-funding certain project activities as indicated in the project document through its local units. The local units of GDNCNP will be one of the important parties of all local committees.
General Directorate of Forest-Village Relations (GDFVR) and its local units	GDFVR will be a member of the Steering Committee. It will also contribute to the project in sustainable/alternative livelihood through its local units and take part in local committees especially the Socio-Economic Development Committee.
General Directorate of Afforestation and Erosion Control (GDAEC) and its local units	GDAEC will be a member of the Steering Committee. It will also contribute to the project especially in ecosystem restoration through its local units and take part in relevant local committees.
General Directorate of Environmental Impact Assessment and Planning (GDEIAP)	GDEIAP will make sure that the Terrestrial Plans of the region will be completed.
Provincial Directorates of Environment and Forestry	Provincial Directorates of Environment and Forestry will be involved in especially water and waste issues and help resolve water and waste related issues.
WWF-TR	Partner of the project as a national NGO. Will be a

Stakeholder	Roles and Responsibilities
	member of the Steering Committee and implement some project activities regarding Resource Management and Protection, Socio-Economic Development, Interpretation & Education as well as Research & Monitoring as defined. WWF-TR will also be represented in all the local committees.
Provincial Agriculture Directorates	The local units of Agriculture Directorates which are based in districts falling in the project area are expected to contribute to sustainable rural development around the Park and will be represented in local Socio-Economic Development Committee.
Provincial Education Directorates	The local Education Directorates which are based in districts falling in the project area are expected to contribute to interpretation and education activities and will be represented in relevant local Committees.
Culture and Tourism Directorates	The local Culture and Tourism Directorates which are based in districts falling in the project area are expected to be involved in interpretation and education activities and will be represented in relevant local Committees.
Universities	The universities based in Kastamonu and Bartin will be represented in the local Committees of Research & Monitoring as well as Interpretation & Education and involved in relevant activities.
Research Institutes	Relevant regional research institutes will be represented in the local Committees of Research & Monitoring as well as and involved in relevant activities.
Governorships	Governorships of Kastamonu and Bartin, and the districts around the project area will be represented in all local committees and involved in relevant project activities.
Municipalities	Municipalities of the districts around the project area will be represented in the local committees and involved in relevant project activities.
Rural Security	The rural security units (Gendarme) in the districts around the project area will be represented especially in the local committee of Resource Protection and their cooperation will be sought especially in resource protection activities.
Local press and media	Local press and media will be invited to take part in the Interpretation & Education Committee. The project will cooperate with local press and media on interpretation and education related issues.
Local NGOs	Local NGOs based in the project area will be invited to all local committees and they will be encouraged to take active role in implementing project activities.
Representatives of local communities (villages)	Inhabitants of the villages within the project area will be made aware of the issues and invited to take part in the decision making process. They will be represented in the local committees by village headmen and actively involved in the project activities. Their cooperation will be sought in implementing project activities including resource protection, alternative income development (ecotourism, organic agriculture), awareness raising, etc. The village headmen will be the main counterparts

Stakeholder	Roles and Responsibilities
	in linking the project objectives and activities to the needs of the people in the project area.
Local Agenda 21	The ongoing LA 21 processes in the region brings together all local actors (governorates, municipalities, NGOs etc.) and will serve as a platform for reaching out to a wider range of stakeholders in the province for dissemination and sharing of information and promoting participation of local communities. The project will pay particular attention to cooperate with Local Agenda 21 initiatives in order to strengthen its capacity.
Forest Cooperatives	Forest Cooperatives are the organizations of forest labour, who are also members of local communities. They will be one of the key partners of the project and will be involved in project activities including, sustainable development and resource protection, awareness raising, etc.
Local Chambers of Commerce and Industry	The project will also encourage local business sector to contribute to the project objectives. They will be represented in local Socio-Economic Development Committee.
UNDP-Turkey	The roles and responsibilities of UNDP-Turkey will include; Ensuring professional and timely implementation of the activities and delivery of the reports and other outputs identified in the project document. Coordination and supervision of the activities Assisting and supporting the GDF for organizing coordinating and where necessary hosting all project meetings Contracting of and contract administration for qualified project team members Manage and be responsible of all financial administration to realize the targets envisioned in consultation with GDF. Establishing an effective networking between project stakeholders, specialized international organizations and the donor community
WB/GEF - Biodiversity and Natural Resource Management Project – under the Ministry of Environment	The project builds upon lessons learned and good practices identified under the ongoing WB/GEF Biodiversity and Natural Resource Management Project (BNRMP). The World Bank/ GEF BNRMP project team was involved in the design of this project to ensure that all lessons learnt are internalized and the gaps are addressed.

57. The project proposes a mechanism, through which a broad-based stakeholder involvement will be achieved both in the project and post-project period. Stakeholder participation model, during the project period, is basically structured around the following main elements: (i) the steering committee (SC); (ii) project management unit (PMU);; and (iii) the local committees (LC). SC and PMU will be based in Ankara to ensure coordination among stakeholder organizations at central level during the project period, while ECU and the LCs will be locally based at the project site and directly responsible for implementing and/or overseeing the activities on the ground. In the proposed model, the four local committees (LC), each of which will be formed by relevant local partners according their respective mandates *(i-resource protection, ii-sustainable development, iii-interpretation and education, iv-research and monitoring),* will

constitute the main pillars of stakeholder participation mechanism. The PMU and the SC will be instrumental in conveying the messages/outcomes of actual site work to relevant central bodies and make use of them in developing new policies.

58. After the completion of the project, the collaborative management scheme is assumed to be established and effectively operating. In the ideal case, the steering committee and the project management unit will be terminated after the project period, in order to encourage an autonomous and localized collaborative management of the Park and the buffer zone. The post-project management structure would then consist of: 1) the local coordination unit, 2) the local committees, which will continue operating.

59. The definition of collaborative management accepted by this project is the IUCN one: Collaborative management is a situation in which some or all of the relevant stakeholders in a protected area are involved in a substantial way in management activities. Specifically, in a collaborative management process, the agency with jurisdiction over the PA (usually a state agency) develops a partnership with other relevant stakeholders (primarily including local residents and resource users) who specifies and guarantees their respective functions, rights and responsibilities with regard to PA. In general the partnership identifies: i) a protected territory (or set of resources) and its boundaries, ii) the range of functions and sustainable uses it can provide, iii) the recognized stakeholders in the PA, iv) the functions and responsibilities assumed by each stakeholder, v) the specific benefits and rights granted to each stakeholder, vi) an agreed set of management priorities and management plan, vii) procedures for dealing with conflicts and negotiating collective decisions about all of the above, viii) procedures for enforcing such decisions, ix) specific rules for monitoring, evaluating and reviewing the partnership agreement, and the relative management plan, as appropriate.

60. It is expected that the proposed model will contribute to better coordination and collaboration between the authorities responsible for conservation and sustainable development. It will be more effective in resolving management problems, and avoiding duplication of efforts in and around the protected area. The efforts of various stakeholders in areas such as conservation, development, education and awareness, research, etc., will be better coordinated and oriented towards common goals.

Risks and Mitigation Measures

Risk	**Risk rating**	**Mitigation strategy**
The project receives required co-operation from relevant Government, municipalities, NGOs, local villagers, private sector	Low	A very comprehensive stakeholder analysis was undertaken during the preparation stage, based on which a participation plan was designed. All the key stakeholders have been involved in the project design and will continue to be highly involved in the management planning exercise and all the other activities supported by the project.
The strength of other sectors and interest groups causing threats is not more than conservation efforts; or they are open to cooperate.	Low	As threats originating in the buffer zone lie beyond the physical and political control of PA authorities, long-term conservation at the sites will therefore clearly require strong inter-sectoral co-ordination among all institutions that have a mandate in the wider landscape influencing the forest sites. In order to harmonize various planning and land use in the area, the project will collaborate with the relevant local authorities, including, but not limited to the General Directorate of Environmental Impact Assessment and Planning (GDEIAP) with respect to integrating biodiversity concerns into development of the territorial plan of the area.
Government remains committed to bringing all 9 forest hot spots under an effective conservation regime	Low	GOT has already designated one forest protected area and has initiated and funded the preliminary scientific studies for the establishment of the other eight sites. The project is requested and executed by the Ministry of Environment and Forestry and identified and “bringing the forest hot spots” under conservation management/ protected area status has been identified as one of the top conservation priorities by the Government.

PART III: Management Arrangements

Core commitments and linkages

61. Based on UNDP's previous experience in the environmental sector, notably through the National Programme on Environment and Development, it is now positioned to provide support to the Turkish authorities in meeting the environmental requirements for EU Accession. UNDP is working in partnership with the government to support new initiatives to promote the integration of sustainable development principles into national and regional development planning in line with the 6th Environmental Action Plan of the EU. UNDP is also increasing support to the National Sustainable Development Committee, as requested, for improved coordination of the elaboration of the National Implementation Plan for Sustainable Development, as well as the implementation of sustainable development principles at the community level.

62. UNDP's involvement to date in environmental governance and sustainable development has focused on improving the capacity of authorities to plan and implement integrated approaches to environmental and energy development. In this context, UNDP has provided support to the Turkish government in its efforts for the integration of global environmental concerns and commitments into national and regional planning. Turkey's ambition to join the EU has reinforced the need to focus on the environmental agenda. Drawing from the experience of the new EU Accession countries in 2004, UNDP anticipates the need for action and support in the area of policy, legal regulatory and institutional reforms as well as major investments in the environmental field.

63. Through collaboration with GEF, UNDP will continue to support national efforts to sustain biodiversity and to promote energy efficiency and conservation. UNDP will work with governmental and NGO partners to increase their capacity for sustainable management of agriculture, fisheries, forests, and energy for a pro-poor approach to conservation. Notably, UNDP will support the National Climate Change Commission by strengthening national and local capacities to formulate and implement strategies to address climate related risks.

64. The proposed MSP is designed to be linked with the environment and sustainable development program areas of UNDP Turkey's Country Cooperation Framework.

Consultation, Co-ordination and collaboration between IAs, and IAs and ExAs

65. Several meetings have been held with representatives of the World Bank/GEF funded BNRMP, during the course of the PDF-A process and the project proponents worked very closely with the project team of the WB/GEF BNRMP to ensure that synergies are edveloped and the lessons learned from the implementation of the BNRMP project are incorporated into the project design. Meetings with Government also addressed the present project's place within the broader technical co-operation context, constituted largely by the BNRMP. It was generally agreed that the present proposal could serve as a useful adjunct to the larger WB project. Continuing co-ordination will be necessary in order to avoid duplication and maximize value added by the new project. In particular, the project will make use of the findings of the ongoing World Bank-implemented GEF Full Scale Project (BNRMP) concerning international best practices in management planning and their adaptation to local circumstances.

Implementation / Execution arrangements

66. The project will be executed by the Ministry of Environment and Forestry, following UNDP guidelines for nationally executed projects. The Executing agency will sign the grant agreement with UNDP and will be accountable to UNDP for the disbursement of funds and the achievement of the project goals, according to the approved work plan. In particular, the Executing Agency will be responsible for the following functions: (i) coordinating activities to ensure the delivery of agreed outcomes; (ii) certifying expenditures in line with approved budgets and work-plans; (iii) facilitating, monitoring and reporting on the procurement of inputs and delivery of outputs; (iv) coordinating interventions financed by GEF/UNDP with other parallel interventions; (v) approval of Terms of Reference for consultants and tender documents for sub-contracted inputs; and (vi) reporting to UNDP on project delivery and impact.

67. The project will establish a Project Steering Committee (PSC), a Project Management Unit (PMU) and Local Committees (LC).

68. The Project Steering Committee will be established at the inception of the project. It will be composed of the MoEF (Research Planning and Coordination Board, Dept of Foreign Relations and EU, General Directorate of Nature Conservation and National Parks General Directorate of Forestry, General Directorate of Forest Village Relations, General Directorate of Afforestation and Erosion Control, General Directorate of Environmental Impact Assessment and Planning), UNDP-Turkey, WWF-Turkey and representative of the local community and/or authorities. The PSC will meet at least quarterly and it will be convened and supported logistically by the PMU. The PSC will be chaired by the Undersecretary of MoEF and will provide overall guidance for the project throughout its implementation. Specifically the PSC will be responsible for: (i) achieving co-ordination among the various government agencies; (ii) guiding the program implementation process to ensure alignment with national and local statutory planning processes and sustainable resource use and conservation policies, plans and conservation strategies; (iii) ensuring that activities are fully integrated between the other developmental initiatives in the region; (iv) overseeing the work being carried out by the implementation units, monitoring progress and approving reports; (v) overseeing the financial management and production of financial reports; (vi) monitor the effectiveness of project implementation; and (vii) preparing regular report-backs for the representing Departments/Institutions. At the first meeting, of the PSC, the MoEF will appoint the Project Director from the General Directorate of Nature Conservation and National Parks and a representative from the General Directorate of Forestry. These two high level officials will be responsible to liaise between the PMU and the the respective Directorates and ensure coordination.

69. The administration of project will be carried out by a Project Management Unit (PMU) under the overall guidance of the Steering Committee. The PMU will be composed of an overall Project Coordinator (Kure Park Manager), a Deputy Project Manager and a Project Assistant/Financial Officer. The Kure Park Manager will be paid by the MoEF, the other two positions will be paid by from GEF funds. The Project Manager, will be hired by UNDP for the project period, will be a natural member of the PMU. He/she, supported by a Project Assistant/Financial Officer, will be responsible for the administrative and technical coordination of the project and reports progress to the PSC. More specifically, the role of the PMU will be to: (i) ensure the overall project management and monitoring according to UNDP rules on managing UNDP/GEF projects; (ii) facilitate communication and networking among key stakeholders in Ankara; (iii) organize the meetings of the PSC; and (iv) support the local stakeholders. The main project Partners are:

70. The Ministry of Environment and Forestry will provide technical support, on a need basis for the overall project activities, through Research Planning and Coordination Board, Dept of Foreign Relations and EU, General Directorate of Nature Conservation and National Parks General Directorate of Forestry, General Directorate of Forest Village Relations, General Directorate of Afforestation and Erosion Control, General Directorate of Environmental Impact Assessment and Planning. Specifically the MoEF will be responsible for: (i) appointing two Senior Programme Officers (one from GDNCP and one from GDF) in charge of the technical implementation of the Project; (ii) chairing and coordinating the Steering Committee; (iii) organizing, coordinating and where necessary hosting all project meetings (including forum events) with support of UNDP; (iv) executing secondment of adequate staff from the MoEF and other major governmental institutions for undertaking project activities; the staff seconded should have good English skills; (v) sign letters of invitation for events such as the Steering Committee meetings, workshops and seminars; (vi) solicitation of the technical inputs to the project activities; (vii) upon the recommendation of the SC approving proposals; and (viii) providing timely response to the UNDP's requests for clarification of Steering Committee decisions, for selection and review of project staffing, work plans, progress reports, amendments to the project etc.

71. WWF-Turkey: As a partner of the project, WWF-Turkey will be actively involved in implementation of certain activities as agreed with the key stakeholders during the project preparation process. WWF-Turkey will also be represented on the PSC. WWF-Turkey will assign sufficient number of qualified

staff in implementing its role in the project. More specifically, WWF-Turkey will carry out certain project activities including: (i) developing and running a volunteer support program; (ii) communicating biodiversity indicators and targets to stakeholders; (iii) preparing ecosystem restoration plan; (iv) periodic assessment of management effectiveness and its presentation; (v) preparation of ecotourism strategy; (vi) interpretation of the park and the area; (v) participating in the development and promotion of local guidelines for sustainable forest management; introducing WWF's HCVF methodology for developing multi-purpose forest management plans; (vi) advocacy and awareness on sustainable use of water resources; (vii) working with local municipalities to address water and waste related issues; and (vii) sharing new methodologies with other sites. WWF-Turkey will ensure professional and timely implementation of the activities and delivery of the reports and other outputs. It will ensure effective coordination and cooperation with other project partners and stakeholders; bring in know-how and expertise from WWF network as needed; allocate a vehicle for project activities, as an in-kind contribution to the project; assisting and supporting the project partners for organizing coordinating and where necessary hosting all project meetings; seek opportunities for developing new projects and activities as follow up. It will be contracted to complete selected activities outlined in the project document (see specified activity selection outlined in the appendix).

72. UNDP: The GOT has requested UNDP assistance for the design and implementation of this MSP, due to UNDP's proven record in Europe and CIS region and globally in developing the enabling environment for protected area establishment and management in terms of policy, governance, institutional capacity and management know-how. Currently, UNDP is supporting a number of projects in Europe and CIS focused on catalyzing the sustainability of protected areas with an impact on more than 60 protected areas in the region covering more than 16 million hectares. The Project will be implemented by UNDP Turkey. UNDP Turkey will be responsible for technical and financial management of the project in close collaboration and consultation with the MoEF. Project components will be implemented through the PMU established through project funds. In addition to the results and the activities enumerated above, the UNDP will be responsible for: (i) Ensuring professional and timely implementation of the activities and delivery of the reports and other outputs identified in the project document; (ii) Coordination and supervision of the activities outlined in the project document; (iii) Undertaking necessary organizational arrangements for all project meetings to be held under the aegis of MoEF (including forum events); (iv) Contracting of and contract administration for qualified local and intrenational experts who meet the formal requirements of the UNDP/GEF; (v) Manage and be responsible of all financial administration to realize the targets envisioned in consultation with MoEF; (vi) To mainstream project outcomes in its own national programme and consider funding opportunities from its own resources; (vii) To coordinate with UN Country Team in Turkey with a view to mainstreaming in their interventions at the country level and funding as appropriate; (viii) Establishing an effective networking between project stakeholders, specialized international organizations (such as FAO) and the donor community; (ix) Ensure networking among the country-wide stakeholders; (x) Review and make recommendations for reports produced under the project; and (x) Establish and endorse the thematic areas, with a view to ensuring linkage to national policy goals, relevance, effectiveness and impartiality of the decision making process.

73. In order to accord proper acknowledgement to GEF for providing funding, a GEF logo will appear on all relevant GEF project publications, including among others, project hardware and vehicles purchased with GEF funds. Any citation on publications regarding projects funded by GEF should also accord proper acknowledgment to GEF. The UNDP logo should be more prominent -- and separated from the GEF logo if possible, as UN visibility is important for security purposes

PART IV: Monitoring and Evaluation Plan and Budget

74. Monitoring and Evaluation (M&E) of the project will follow the UNDP Program Manual and GEF M&E procedures and will be conducted by the project team and the UNDP Country Office (UNDP-CO) with support from UNDP/GEF Regional Coordination Unit in Bratislava. The Logical Framework Matrix

in Annex A provides impact and outcome indicators for project implementation along with their corresponding means of verification. These will form the basis for the project M&E System. The Management Effectiveness Tracking Tool (METT) will be used in the first year to establish baseline values for targeted forested protected areas. Annex E of the Project Document presents the METT baseline scores for Kure MNP. The METT will be conducted annually for the life of the project and compared with the stated indicators for mid term and end of the project. The project will also support the collection and processing of data for M&E and annual stakeholder meetings to share the information obtained from monitoring. These will form the basis for the project M&E System.

75. The M&E plan includes: inception report, project implementation reviews, quarterly operational reports, a mid-term and final evaluation. The project's Monitoring and Evaluation Plan will be presented and finalized at the Project's Inception Meeting following a collective fine-tuning of indicators, means of verification, and the full definition of project staff M&E responsibilities.

Monitoring and reporting

Project Inception Phase

76. A Project Inception Workshop will be conducted with the full project team, relevant government counterparts, co-financing partners, the UNDP-CO and representation from the UNDP-GEF Regional Coordinating Unit. A fundamental objective of this Inception Workshop will be to assist the project team to understand and take ownership of the project's goal, objective and outcomes, as well as finalize preparation of the project's first annual work plan on the basis of the project's logframe matrix. This will include reviewing the logframe (indicators, means of verification, assumptions), imparting additional detail as needed, and on the basis of this exercise finalize the Annual Work Plan (AWP) with precise and measurable performance indicators, and in a manner consistent with the expected outcomes for the project. Additionally the purpose and objective of the Inception Workshop (IW) will be to: (i) introduce project staff with the UNDP-GEF expanded team which will support the project during its implementation, namely the CO and responsible Regional Coordinating Unit staff; (ii) detail the roles, support services and complementary responsibilities of UNDP-CO and RCU staff vis à vis the project team; (iii) provide a detailed overview of UNDP-GEF reporting and monitoring and evaluation (M&E) requirements, with particular emphasis on the harmonized Annual Project Implementation Reviews (PIRs)/Annual Project Report (APR), Steering Committee Meetings, as well as mid-term and final evaluations. Equally, the IW will provide an opportunity to inform the project team on UNDP project related budgetary planning, budget reviews, and mandatory budget rephasings. The IW will also provide an opportunity for all parties to understand their roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff and decision-making structures will be discussed again, as needed, in order to clarify for all, each party's responsibilities during the project's implementation phase.

Monitoring responsibilities and events

77. The day-to-day monitoring of implementation progress will be the responsibility of the project coordinator, whose work will be based on the project's annual work plan and its indicators. Annual monitoring will be carried out by the Project Board (including Government, UNDP, and key beneficiaries of the project), which is the highest policy-level meeting of the parties directly involved in the implementation of a project. The first such meeting will be held within the first twelve months following the inception workshop. A detailed schedule of Project Board's meetings to review project progress will be developed by the project management, in consultation with project national executing agency and stakeholder representatives and incorporated in the Project Inception Report. Such a schedule will include: (i) tentative time frames for Project Board's meetings and (ii) project related Monitoring and Evaluation activities. For each Project Board meeting the project manager will prepare annual project report and submit it to the PB members at least two weeks prior to the meeting for review and comments. In addition, ad-hoc meetings can be scheduled between the Government, project coordinator, the

Implementing Agency and other pertinent stakeholders as deemed appropriate and relevant to allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities.

78. Day to day monitoring of implementation progress will be the responsibility of the Project Coordinator, assisted by experts as deemed necessary based on the project's Annual Work Plan and its indicators. The Project Team will inform the UNDP-CO of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion. Periodic monitoring of implementation progress will be undertaken by the UNDP-CO through quarterly meetings with the National Executing Agency, or more frequently as deemed necessary. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities.

Project Reporting

79. The Project Coordinator in conjunction with the UNDP-GEF extended team will be responsible for the preparation and submission of the following reports that form part of the monitoring process:

80. A Project Inception Report will be prepared immediately following the Inception Workshop. It will include a detailed First Year/Annual Work Plan divided in quarterly time-frames detailing the activities and progress indicators that will guide implementation during the first year of the project. This Work Plan would include the dates of specific field visits, support missions from the UNDP-CO or the Regional Coordinating Unit (RCU) or consultants, as well as time-frames for meetings of the project's decision making structures. The Report will also include the detailed project budget for the first full year of implementation, prepared on the basis of the Annual Work Plan, and including any monitoring and evaluation requirements to effectively measure project performance during the targeted 12 months time-frame. The Inception Report will include a more detailed narrative on the institutional roles, responsibilities, coordinating actions and feedback mechanisms of project related partners. In addition, a section will be included on progress to date on project establishment and start-up activities and an update of any changed external conditions that may effect project implementation. When finalized the report will be circulated to project counterparts who will be given a period of one calendar month in which to respond with comments or queries. Prior to this circulation of the IR, the UNDP Country Office will review the document. As part of the Inception Report, the project team will prepare a draft Reports List, detailing the technical reports that are expected to be prepared on key areas of activity during the course of the Project, and tentative due dates. Where necessary this Reports List will be revised and updated, and included in subsequent APRs. These technical reports will represent the project's substantive contribution to specific areas, and will be used in efforts to disseminate relevant information and best practices at local, national and international levels.

81. The UNDP/GEF PIR/APR will be prepared on an annual basis prior to the PB meeting to reflect progress achieved in meeting the project's Annual Work Plan and assess performance of the project in contributing to intended outcomes through outputs and partnership work. The PIR/APR will include the following: (i) An analysis of project performance over the reporting period, including outputs produced and, where possible, information on the status of the outcome; (ii) The constraints experienced in the progress towards results and the reasons for these; (iii) The three (at most) major constraints to achievement of results; (iv) AWP and other expenditure reports (ERP generated); (v) lessons learned; and (vi) Clear recommendations for future orientation in addressing key problems in lack of progress.

82. Short reports outlining main updates in project progress will be provided quarterly to the local UNDP Country Office and the UNDP-GEF regional office by the project team.

83. During the last three months of the project the project team will prepare the Project Terminal Report. This comprehensive report will summarize all activities, achievements and outputs of the Project, lessons learnt, objectives met, or not achieved, structures and systems implemented, etc. and will be the definitive statement of the Project's activities during its lifetime. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's activities.

Independent evaluations

84. The project will be subject to two independent external evaluations as follows. An independent Mid-Term Evaluation will be undertaken at the mid point of project implementation. The Mid-Term Evaluation will determine progress being made towards the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF. An independent Final Evaluation will take place three months prior to the terminal tripartite review meeting and will be undertaken in accordance with UNDP and GEF guidance. The final evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term evaluation, if any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The final evaluation should also provide recommendations for follow-up activities, and the report will feature management response to the issues raised. The Terms of Reference for this evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF.

Audit clause

85. The Government of Turkey will provide the Resident Representative of UNDP Turkey with certified periodic financial statements, and with an annual audit of the financial statements relating to the status of UNDP (including GEF) funds according to the established procedures set out in the Programming and Finance manuals. The Audit will be conducted by the legally recognized auditor of the Government, or by a commercial auditor engaged by the Government.

Learning and knowledge sharing

86. Results from the project will be disseminated within and beyond the project intervention zone through a number of existing information sharing networks and forums. In addition, the project will participate, as relevant and appropriate, in UNDP/GEF sponsored networks, organized for Senior Personnel working on projects that share common characteristics. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects. Identify and analyzing lessons learned is an on- going process, and the need to communicate such lessons as one of the project's central contributions is a requirement to be delivered not less frequently than once every 12 months. UNDP/GEF shall provide a format and assist the project team in categorizing, documenting and reporting on lessons learned.

M&E budget

Type of M&E activity	Responsible Parties	Budget US$	Time frame
Inception Workshop (IW)	Project Coordinator UNDP CO, UNDP GEF	5,000	Within first two months of project start up
Inception Report	Project Team UNDP CO	None	Immediately following IW
Measurement of Means of Verification for Project Purpose Indicators	Project Coordinator will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members	To be finalized in Inception Phase and Workshop. Cost to be covered by targeted survey funds.	Start, mid and end of project
Measurement of Means of Verification for	Oversight by Project GEF Technical Advisor and Project Coordinator	TBD as part of the Annual Work Plan's	Annually prior to APR/PIR and to the

Project Progress and Performance (measured on an annual basis)	Measurements by regional field officers and local IAs	preparation. Cost to be covered by field survey budget.	definition of annual work plans
APR and PIR	Project Team UNDP-CO UNDP-GEF	None	Annually
TPR and TPR report	Government Counterparts UNDP CO, Project team UNDP-GEF RCU	None	Every year, upon receipt of APR
Steering Committee Meetings	Project Coordinator UNDP CO	None	Following IW and annually thereafter.
Technical and periodic status reports	Project team Hired consultants as needed	10,000	TBD by Project team and UNDP-CO
Mid-term External Evaluation	Project team UNDP- CO UNDP-GEF RCU External Consultants (evaluation team)	40,000	At the mid-point of project implementation.
Final External Evaluation	Project team, UNDP-CO, UNDP-GEF RCU External Consultants (evaluation team)	46,000	At the end of project implementation
Terminal Report	Project team UNDP-CO External Consultant	None	At least one month before the end of the project
Audit	UNDP-CO Project team	7,000	Yearly
Visits to field sites (UNDP staff travel costs to be charged to IA fees)	UNDP CO, UNDP-GEF RCU Government representatives	None	Yearly average one visit per year
TOTAL indicative COST Excluding project staff time, UNDP staff and travel expenses.		108,000	

PART V: Legal Context

87. This Project Document shall be the instrument referred to as such in Article I of the Standard Basic Assistance Agreement between the Government of Turkey and the United Nations Development Programme, signed by the parties on 21 October 1965. The host country implementing agency shall, for the purpose of the Standard Basic Assistance Agreement, refer to the government co-operating agency described in that Agreement.

88. The UNDP Resident Representative in Turkey is authorized to effect in writing the following types of revision to this Project Document, provided that he/she has verified the agreement thereto by the UNDP-GEF Unit and is assured that the other signatories to the Project Document have no objection to the proposed changes:

a) Revision of, or addition to, any of the annexes to the Project Document;
b) Revisions which do not involve significant changes in the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of the inputs already agreed to or by cost increases due to inflation;
c) Mandatory annual revisions which re-phase the delivery of agreed project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility; and
d) Inclusion of additional annexes and attachments only as set out here in this Project Document

SECTION II: STRATEGIC RESULTS FRAMEWORK (SRF)

Project Goal	Long-term conservation of the most representative range of globally significant biodiversity in Turkey by strengthening the national system of protected areas

Project Strategy	**Objectively verifiable indicators**				
	Indicator	**Baseline**	**Target**	**Source of Verification**	**Risks and Assumptions**
Project objective: To enhance coverage and management effectiveness of the Forest Protected Areas (FPAs) through demonstrating cost-effective approaches for effective conservation and sustainable resource management at Küre Mountains National Park and taking initial steps towards the replication of this model at the remaining eight forest hot spots	Surface of globally significant habitats (grasslands, old growth forests) under conservation management	37,000 ha	600,000 ha	Meeting Pan Parks requirements Monitoring surveys Biodiversity monitoring reports	National political and economic stability ensure that GoT remains committed to conservation objectives The strength of other sectors and interest groups causing threats is not more than conservation efforts; or they are open to cooperate. The agencies responsible for the management of the forest sites continue to be open to apply the new tracking systems for performance and cost-effectiveness.
	Proportion of 9 forest hot spots under legal protection	10%	100%	Official Gazette	
	Number of forest hot spots using some kind of performance monitoring system (such as METT)	1 (Kure)	9	METT data sheets	
Outcome 1: Cost-effective conservation management approaches for forest protected areas are implemented at Küre Mountains National Park (KMNP)	Use of business methods at Kure MNP level and existence of a PA performance monitoring system	There is no business planning at Kure MNP level and no institutionalized PA performance monitoring system	Business planning is an integral part of PA management, supported by an M&E system at the park level	Business plan Monitoring plan	The project receives required co-operation from relevant local people Government financing is not jeopardized by political and economic instability No irresolvable difficulties are encountered in drafting of management plan; conflict resolution mechanism can successful resolve serious conflicts
	Management costs for KMNP are in line with available funds	Available funds cannot cover management costs of effective protection	Management costs are being covered through revenues and other national funding sources	Financial records of KMNP management authority	

Project Strategy	Objectively verifiable indicators				
	Indicator	**Baseline**	**Target**	**Source of Verification**	**Risks and Assumptions**
Outcome 2: Sustainable natural resource management is demonstrated in Kure Mountain National Park	Use of sustainable forest management approaches in the buffer area of KMNP is institutionalized by the Department of Forestry as a tool for sustainable natural resource management to be used in all forest PAs	No sustainable forest management guidelines applied in Kure and other forest sites	Sustainable forest management guidelines developed and implemented at KMNP and institutionalized by the Department of Forestry as a tool for sustainable natural resource management to be used in all forest PAs	Records from the Forest & National Parks departments and court	Socio-economic and human development priorities of local communities can be addressed in a sustainable manner while conserving the biodiversity of the project area The project receives all required co-operation from relevant Government, municipalities, NGOs, local villagers
	Extent and percentage of forest area under comprehensive sustainable forest management plan[15]	0 hectares of forest in the buffer zone is under SFM	40% of forest area is under SFM	Records from Forest Department	
	Area of degraded forest land	40,000 hectares	5% decline in degraded forest areas	Records from Forest Department	
	Alternative livelihoods	70% of local population depends on resource harvest from the forest to generate income	At least 5% of local population is generating income from alternative livelihoods	Records from the Forest & National Parks departments	
	Increased biomass production to meet fuel needs	70% local populations rely on the forest to meet fuel needs	At least 10% of fuel needs are being met from non-forest sources	Records from the Forest department	
Outcome 3: Lessons learned from demonstration work at KMNP are disseminated to the other forest hot spots in Turkey, contributing to the maturation of the national protected area	Assessment scores for the staff working in the nine forest sites Institutional assessment scorecard	The conservation management capacity of the staff responsible for forest sites is very low	The capacity is increased by 60%	Institutional Assessment scorecard Personnel records and TORs of staff	Government remains committed to bringing all 9 forest hot spots under an effective conservation regime

[15] In the inception stage, the project team in consultation with experts and local stakeholders will develop a monitoring protocol tracking forest biological indicators based on the WWF tracking tool on forest conservation and management.

Project Strategy	Objectively verifiable indicators				
	Indicator	**Baseline**	**Target**	**Source of Verification**	**Risks and Assumptions**
system	Instances of “methodology replication” at other sites	0	By project end, 3 recorded instances of ‘methodology replication’ at GttE sites or elsewhere (supported through leveraged co-financing)	Official Gazette Project progress reports	

SECTION III: TOTAL BUDGET AND WORK PLAN

Award ID:	00044419
Award Title:	PIMS 1988 BD MSP Forest Protected areas
Business Unit:	TK10
Project ID	00052221
Project Title:	PIMS 1988 Enhancing coverage and management effectiveness of the subsystem of forest protected areas in Turkey's national system of protected areas
Implementing Partner	Ministry of Environment and Forestry

GEF Outcome/Atlas Activity	Responsible Party	Fund ID	Donor Name	Atlas Budgetary Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Total (USD)	See Budget Note:
Outcome 1				71300	Local Consultants	26,500	47,600	43,600	33,300	151,000	1
				71200	International Consultants	22,500	22,500	-	-	45,000	2
				72100	Contractual services	30,000	50,000	28,000	-	108,000	3
Cost-effective conservation management approaches for forest protected areas are designed, piloted and adopted				71600	Travel	17,500	17,500	5,000	2,000	42,000	4
				74500	Miscellaneous	1,000	1,000	1,000	1,000	4,000	5
				72200	Equipment	10,000	10,000	-	-	20,000	6
				74200	Audio, video and print production costs	-	10,000	5,000	-	15,000	7
					Subtotal GEF	**107,500**	**158,600**	**82,600**	**36,300**	**385,000**	
	UNDP	**62000**	**GEF**		**Total Outcome 1**	**107,500**	**158,600**	**82,600**	**36,300**	**385,000**	
Outcome 2				71300	Local Consultants	29,500	33,500	29,500	8,500	101,000	8
				72100	Contractual services	20,000	60,000	40,000	-	120,000	9
Sustainable natural resource management approaches demonstrated in in buffer areas				71600	Travel	5,000	4,000	4,000	2,000	15,000	
				72200	Office equipment	-	30,000	-	-	30,000	10
				74500	Miscellaneous	2,000	2,000	2,000	1,000	7,000	
				74200	Audio, video and print production costs	5,000	20,000	5,000	-	30,000	
					Subtotal GEF	**61,500**	**149,500**	**80,500**	**11,500**	**303,000**	
	UNDP	**62000**	**GEF**		**Total Outcome 2**	**61,500**	**149,500**	**80,500**	**11,500**	**303,000**	
Outcome 3				71200	International Consultants	-	21,000	-	21,000	42,000	11
				71300	Local Consultants	-	4,800	-	4,800	9,600	12
Lessons learned from demonstration work in the first established forest PAs are disseminated to the other forest hot spots in Turkey, contributing to the maturation of the PA system of Turkey				72100	Contractual services		38,400	40,000		78,400	13
				71600	Travel	2,000	17,500	2,000	17,500	39,000	
				74500	Miscellaneous	1,000	1,000	1,000	1,000	4,000	
				74100	Professional Services (Audit)	1,500	1,500	1,500	1,500	6,000	
				74200	Audio, video and print production costs	-	10,000	-	-	10,000	
					Subtotal GEF	**4,500**	**94,200**	**44,500**	**45,800**	**189,000**	
	UNDP	**62000**	**GEF**		**Total Outcome 3**	**4,500**	**94,200**	**44,500**	**45,800**	**189,000**	
				71300	Local Consultants	30,000	17,000	17,000	16,000	80,000	14
				71600	Travel	1,250	1,250	1,250	1,250	5,000	15
				72800	Informantion Tech Equip	4,240	-	-	-	4,240	16
Project Management				72500	Supplies	1,800	1,440	1,440	1,080	5,760	17
					Subtotal GEF	**37,290**	**19,690**	**19,690**	**18,330**	**95,000**	
					Total Management	**37,290**	**19,690**	**19,690**	**18,330**	**95,000**	
	UNDP	**62000**	**GEF**		**PROJECT TOTAL**	**210,790**	**421,990**	**227,290**	**111,930**	**972,000**	

Summary of Funds:	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Total
GEF	**210,790**	**421,990**	**227,290**	**111,930**	**972,000**
Government					-
GDF	50,000	212,000	100,000	50,000	412,000
GDNCP	200,000	344,000	100,000	100,000	744,000
GDFVR	-	70,000	60,000	-	130,000
GDAEC	40,000	30,000	-	-	70,000
GDEIAP	-	20,000	20,000	-	40,000
Cofinancing Government	**290,000**	**676,000**	**280,000**	**150,000**	**1,396,000**
WWF	36,000		-	-	36,000
Cofinancing total	326,000	676,000	280,000	150,000	1,432,000
TOTAL	**536,790**	**1,097,990**	**507,290**	**261,930**	**2,404,000**

1. Local consultants: PA Management expert (150 weeks); legal expert (10 weeks); communication expert (10 weeks)
2. International consultants: Protected Area management expert (5 weeks); PA Finance expert (10 weeks)
3. Contractual services for: boundary demarcation, volunteer support programme, training on protected area management for Kure and the sites and biodiversity monitoring system
4. Travel: international for the 2 international consultants: flight tickets (2,500/ticket *4: 2 in year 1 and 2 in year 2) and DSAs (25 days PA management expert + 50 days PA finance expert); domestic for international and local consultants - travel between Ankara and the nine forest hot spots
5. Miscellaneous
6. Equipment for the park and visitor center: interpretation materials; displays
7. Materials for public awareness of the value of forest protected areas
8. Local consultants: 50 weeks sustainable forest management expert; 50 weeks sustainable livelihood expert; 10 weeks legal expert; 10 weeks communication expert
9. Service contracts on capacity development for local communities and NGOs on income generating activities; advocay on water quality
10. Equipment for water quality monitoring; forest surveys
11. International consultants: independent mid-term and final evaluation experts
12. Local consultants: mid-term and final evaluation experts
13. Service contracts: training for all the forest hotspots
14. Local consultants: Deputy Project Manager at 50 weeks * US$ 900 + Administrative assistant at 87.5*US$ 400

15. Travel of project management unit to project sites; approximately 4 trips are to be made over the 4-year life of the project with an estimated cost of $1,250 per trip to be covered by the GEF; government will cover additional cost of travel that needs to be undertaken for project management
16. 2 laptops and 1 printer for project office (USD 4,240)
17. Utilities and stationery

SECTION IV: ADDITIONAL INFORMATION

PART I:
APPROVED PIF

PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: Medium-sized Project
THE GEF TRUST FUND

1.

Submission Date: 2nd July 2007
Re-submission Date: 2nd October 2007

PART I: PROJECT IDENTIFICATION

GEFSEC PROJECT ID: 1026
GEF AGENCY PROJECT ID: 1988
COUNTRY(IES): Turkey
PROJECT TITLE: Enhancing coverage and management effectiveness of the subsystem of forest protected areas in Turkey's national system of protected areas
GEF AGENCY(IES): UNDP
OTHER EXECUTING PARTNERS: Ministry of Environment and Forestry
GEF FOCAL AREAS: Biodiversity
GEF-4 STRATEGIC PROGRAM(S): BP-SP 3

INDICATIVE CALENDAR	
Milestones	**Expected Dates**
Work Program (for FSP)	n/a
CEO Endorsement/ Approval	Dec.2007
GEF Agency Approval	Dec. 2007
Implementation Start	January 2008
Mid-term Review	January 2010
Implementation Completion	January 2012

A. PROJECT FRAMEWORK (Expand table as necessary)

Project Objective: To enhance coverage and management effectiveness within the Forest Protected Areas PA sub system								
Project Components	Investment TA, STA	Expected Outcomes	Expected Outputs	Indicative GEF Financing		Indicative Co-financing		Total ($)
				($)	%	($)	%	
1. Cost-effective conservation management approaches for forest protected areas are designed, piloted and adopted	TA	- Enabling environment for expansion of Forest Protected Area System to cover at least 600,00 ha - Improved management effectiveness (METT) 117,000 ha - Sustainable financing	- enhanced conservation management implemented at KMNP - system for biodiversity survey and monitoring established and operational - business plan for KMNP developed	385,000	36.1	680,664	63.9	1,065,664
2. Sustainable natural resource management approaches demonstrated in buffer areas	TA	- Sustainable forest management - Alternative livelihoods	- sustainable forest management implemented in the buffer zone of KMNP - capacity of local communities to advocate for minimizing adverse impacts of development projects in the buffer zone enhanced	303,000	35.3	555,000	64.7	858,000

3. Lessons learned from demonstration work in the first established forest PAs are disseminated to the other forest hot spots in Turkey, contributing to the maturation of the PA system of Turkey	TA	- Methodology replicated at other sites	- experience in threat removal is shared with 8 sites - capacity of stakeholders in 8 sites to apply new conservation m-t planning tools and methodologies improved	189,000	77.1	56,000	22.9	245,000
4. Project management				95,000	40.4	140,336	59.6	235,336
Total project costs				**972,000**	40.4	**1,432,000**	59.6	**2,404,000**

B. INDICATIVE FINANCING PLAN SUMMARY FOR THE PROJECT ($)

	Project Preparation (pre RAF PDF A) - No new PPG will be requested	Project	Agency Fee	Total
GEF Grant	24,500	972,000	99,650	1,096,150
Co-financing	10,000	1,432,000		1,442,000
Total	34,500	2,404,000	99,650	2,538,150

C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE ($), IF AVAILABLE

Co-financing Source	Cash	In-kind	Total
Project Government Contribution	160,000	1,236,000	1,396,000
NGO	0	36,000	36,000
Total co-financing	160,000	1,272,000	1,432,000

D. GEF RESOURCES REQUESTED BY FOCAL AREA(S), AGENCY (IES) SHARE AND COUNTRY (IES): N/A

PART II: PROJECT JUSTIFICATION

A. STATE THE ISSUE, HOW THE PROJECT SEEKS TO SOLVE IT, AND THE EXPECTED GLOBAL ENVIRONMENTAL BENEFITS TO BE DELIVERED:

89. Due to its highly strategic bio-geographical position at the crossroads of three continents, Turkey is considered to be one of the most important countries in the temperate world in terms of its floristic diversity. The number of vascular plant species in the country is estimated at 9,000[16] of which one third is endemic, nearly 1,700 are rare and 12 are extinct. The global importance of Turkish ecosystems is exemplified by the fact that three ecoregions, one terrestrial (Caucasus and Mediterranean), one marine (Mediterranean), are classified as Global 200 Ecoregions - considered by WWF as the most important ecoregions on earth in terms of their conservation values. Turkey has put in place a national network of protected areas in order to conserve this biodiversity with a combined area of approximately 4.1 million ha, or about 5% of its territory.

90. Forests are among the most significant of Turkey's ecosystems in terms of biodiversity but are under-represented in the PA system. A variety of forest ecosystems exist, from lowland alluvial to high mountain forests, altogether covering 21 million hectares. Despite their significance, the total extent of

[16] For comparison, UK has 2,000 vascular plant species and the entire European continent 12,000.

forest areas benefiting from some form of protection is less than 4% of the national forest cover. The last national-level assessment of the PA system (1996–1999), led the Government to pledge to increase PA coverage to embody representative samples of forest ecosystems. During this same period, WWF Turkey took part in a regional Mediterranean forest gap analysis[17] aimed at identifying ecologically representative forest areas not covered under the protected area system. In the case of Turkey, the analysis resulted in a list of 40 important 'gaps' in forest protection, a list which was later reduced to nine 'hot spots.' In 1999, as Turkey's Gift to the Earth[18], the Government made a commitment to establish or extend protected areas at the nine identified forest hot spots. The first step towards realizing this commitment was taken when the Küre Mountains was officially gazetted as a National Park (KMNP).

91. It is estimated that nearly half of Turkey's forests are degraded due to intensive use of resources. Turkey's forest biodiversity faces several threats including overgrazing, cutting, and encroachment. The root causes behind these threats include poverty in forest villages and lack of clear land tenure, which lead to ongoing disputes among stakeholders. To some extent conservation values in Turkey's forest biome is being secured by virtue of the fact that the national system of PAs includes forested areas. However, the national system still does not include certain critical forest hot spots. The inclusion of these areas in the PA system, and the institution of effective conservation regimes geared to threat mitigation is fundamental to securing their long term protection. The combined effect of inadequate PA coverage and management approaches that are not geared to effective threat abatement constitutes an over arching barrier to enhancing the management effectiveness of the PA system[19]. The commitment to addressing the coverage gap and improving management effectiveness is clearly articulated in GoT's decision to designate KMNP, and extend this effort to the other 8 forest hot spots in the country. However, national capacity to effectively implement this commitment is currently lacking.

92. The main management challenges or barriers confronting the government in extending effective protection regimes at the eight hot spots are: (i) Systemic lack of capacity: including (a) Poor definition of the optimum role of stakeholders in protected area management to optimize management effectiveness; (b) poor institutional organization and coordination - there is a degree of duplication and ambiguity, and lack of coordinated efforts between the Ministry of Environment and Forest Protection, the Ministry of Agriculture and the General Directorate of Environmental Impact Assessment and Planning (GDEIAP); and (c) limited and inadequate zoning of protected areas to facilitate multiple environment and development objectives; (ii) Institutional and individual capacities, including: (a) Weak capacity to develop a detailed strategic and operational plan to ensure cost-effective deployment of financial and human resources; (b) limited business planning and knowledge management; (c) GDEIAP does not have the capacity to assess ecological impact of allocating certain lands to agriculture preventing them from completing territorial land use plans and; (d) collection and trade of wild plants is under the authority of Ministry of Agriculture (MoA) by taking permission from MOEF which is responsible for species protection; however, MoA provincial directorates that should supervise collection and trade do not have proper mandate; do not have technical ability to put in place a sustainable harvest regime; do not have capacity to monitor collection and trade; (e) Capacity of locals and PA authority to work together to monitor and check illegal activity is weak; and (ii) Information/ knowledge gaps, including: (a) Biological information that can provide baseline data for developing appropriate management plans for the park and for forest areas, monitoring subsequent ecological changes, and a detailed sense of the intensity and location of threats facing biodiversity is missing; (b) there is no comprehensive understanding of the

[17] Regato, P. 1998. Mediterranean Forest Gap Analysis (unpublished study), WWF Mediterranean Programme, Rome.
[18] WWF Global programme of "Gifts to the Earth (GttE)," whereby countries and other entities were making new conservation commitments to coincide with the millennium.
[19] There are other systemic barriers compromising effectiveness of the national system of protected areas such as deficiencies, conflicts and gaps across the Environment Law, Range Law, Hunting Law, and Tourism Encouragement Law. However, these national-level systemic barriers are being addressed under the ongoing World Bank/ GEF Biodiversity and Natural Resource Management project.

extent of harvest of non-wood forest resources, its potential to generate cash income and its potential to inflict harm; (c) no knowledge of alternatives to harvesting wood for sale or self-consumption.

93. While the Government is committed to expanding the PA estate to improve bio-geographic representation, it needs support from the international community to establish management systems and approaches attuned to conservation needs in these areas. The normative solution proposed by this project will fulfill this need, working to develop and demonstrate the efficacy of new management approaches. The project aims to enhance coverage and management effectiveness within the Forest Protected Areas sub system. The new management practices for PAs and buffer zones, guidelines for zoning, business planning, financial analyses, mechanisms to enable better coordination between the various stakeholders involved in natural resource management and use in the forest protected areas, participation mechanisms for the local communities in conservation activities will be critical in providing the foundation and the tools required for expansion and will remove the systemic and institutional capacity barriers to effective conservation management. The KMNP has been chosen as a demonstration site because: (i) it represents the best remaining example of the 'deciduous and coniferous forests of North Anatolia' ecoregion as well as the best remaining example of the highly endangered karstic mountain areas of the "Black Sea Humid Forests" ecotype.[20]; (ii) it is broadly representative of different socio-economic, ecological and institutional conditions at the other intended forest PAs, implying that the management paradigm developed there can easily be adapted for employment at the other sites once it has been tried and tested; and (iii) GoT has already taken several important steps in the recent past to secure the PA, including by establishing an on-site management presence. The project will avoid creating high-maintenance operational systems at the demonstration site, but will focus on essential needs for conserving biodiversity. In addition, the project will explore various mechanisms for sustainable financing, including ecotourism charges, etc., as a source of funding to complement regular budgetary allocations from the public purse. The project will conduct a financial and economic analysis to assess the current and potential economic value and investigate options for improving the financing of the KMNP initially and will develop a budget and roll-out program for sustainable financing for the other forest protected areas.

94. The Park and buffer areas are under the jurisdiction of the General Directorate of Nature Conservation and National Parks (GDNCNP) and General Directorate of Forestry (GDF) respectively. The project is piloting new management approaches including institutional cooperation in PA management between these two agencies and an NGO (WWF – Turkey). One of the important characteristics of the approach proposed is the introduction, with participation of NGOs, of a series of new methodological approaches in forest and PA management for Turkey. These include: Buffer Zone Management, Rapid Assessment and Prioritization of Protected Area Management (RAPPAM), Forest Landscape Restoration (FLR), Reporting Progress Towards Good Forest management at a Landscape Scale, Pan Parks, etc. The potential value of these methodologies can only be realized to the extent that their use becomes widespread within the Turkish PA management context. The project will support measures aimed at disseminating these key methodologies and approaches amongst target stakeholders within MoEF, related institutions, and at project sites. Threats from the buffer zone such as road construction, poaching, illegal hunting, erosion due to loss of tree cover, discharge of municipal solid waste and wastewater, etc. have significant influence on natural resources inside the national park and the other hot spot forest areas. Therefore, it is more cost-effective to look at both the protected area and surrounding landscape. The project will closely cooperate with General Directorate of Forestry (GDF), which is the physical and political management authority responsible for the buffer zone, to reduce the pressure on natural resources in the buffer zone and to address the above mentioned problems. GDF will be a member of the Steering Committee and will be responsible for implementing project activities in the buffer zone around the Park through its local units. GDF will also contribute to the project by co-funding certain project activities as indicated in the project document through its local units. General Directorate

[20] WWF. 2001. *Mediterranean Forests: A New Conservation Strategy*.

of Nature Conservation and National Parks (GDNCNP) and GDF have the primary responsibility for activities taking place within and around the KMNP. Project activities around the KMNP will be coordinated with GDF, while General Directorate for Nature Conservation and National Parks (GDNCNP) will be responsible for the Park. It is essential to demonstrate this type of cooperation in protected area management for Turkey, as it will apply to the other forest sites which are currently managed by the GDF.

95. The project will contribute to achieving global environmental benefits by enhancing the management effectiveness and sustainability in 117,000 ha of land newly designated as forest protected area in Turkey and indirectly influencing approximately an additional 1,076,838 ha of future forest protected areas covering globally significant forest ecosystems, through up-scaling and replication of best management practices. Some of the areas included in the forest hotspots are already under a type of conservation management/protection. Currently the total area which is not protected is 686,026 ha. The project will assist the Government of Turkey to move towards declaring most of area of the forest hotspots as protected – this will be either be declaring new protected areas or expanding existing ones to encompass new globally significant forest ecosystems. The Government committed this in the "Gift for Earth" declaration. As the establishment and gazettment process is lengthy, it is expected that the project will create the enabling environment for the establishment of larger protected areas to encompass most of the eight forest hot spots.

B. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH NATIONAL PRIORITIES/PLANS

96. The Protected Area System constitutes the foundation of Turkey's programming framework for biodiversity conservation. While not denying other conservation strategies, the Government has identified the need to establish and effectively manage a representative PA estate as critical to providing a refugia for flora and fauna and an ecological safeguard, should biodiversity be extirpated in production landscapes. Currently, forest and marine ecosystems are under-represented in the PA System. This project addresses the unmet need to increase PA representation in forest ecosystems, while a a second project (FSP) is being developed by UNDP to address coverage gaps in the the coastal and marine PA system. GEF support to Turkey will thus make a significant contribution towards realisation of the country's highest national conservation priorities.

C. CONSISTENCY OF THE PROJECT WITH GEF STRATEGIES AND FIT WITH STRATEGIC PROGRAMS:

97. This project is consistent with the GEF's Strategic Objective 1: To Catalyze Sustainability of Protected Area Systems/Strategic Programme 3 Strengthening Terrestrial Protected Area Networks. The protected area network of Turkey is not uniformly distributed in the landscape and there are substantial gaps that need to be addressed to ensure the adequate representation of the main types of ecosystems. This project will contribute to the sustainability and maturation of Turkey's protected area system by establishing a subsystem of forest protected areas that provides long term conservation of Turkey's globally significant forest biodiversity.

D. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES

98. The project builds upon lessons learned and good practices identified under the ongoing WB/GEF Biodiversity and Natural Resource Management Project (BNRMP) which is aiming at addressing systemic barriers that compromise effectiveness of the national system of protected areas such as deficiencies, conflicts and gaps across the Environment Law, Range Law, Hunting Law, and Tourism Encouragement Law. The proposed project will further advance work of the BNRMP through improving the institutional capacity, particularly at the local level, with specific focus on forest ecosystems. For

example, the project will develop participatory management plan for the KMNP and adjacent buffer areas in close cooperation with the General Directorate of Forestry (GDF) and the General Directorate for Nature Conservation and National Parks (GDNCNP) and WWF. This is for the first time in Turkey that such cooperation is piloted. The project was designed from the beginning in cooperation with the World Bank and as complementary with the World Bank/GEF project. The World Bank/ GEF BNRMP project team was involved in the design of this project to ensure that all lessons learnt are internalized and the gaps are addressed. Kure Mountains National Park was selected as one of the potential site for replication of the WB/GEF project, to test innovative approaches in co-management for Turkey based on the assumption that this MSP will be approved. The main differences between this project and component 2 of the BNRMP include: (i) This project's specific focus is on forest hot spots (1 pilot – Küre Mountains National Park and 8 replication sites), whereas BNRMP covers different ecosystems (4 pilot sites); (ii) This project addresses the main management challenges or barriers confronting the government in expanding PAs to cover the eight forest hot spots. The BNRMP looks at the other systemic barriers compromising effectiveness of the national system of protected areas such as deficiencies, conflicts and gaps across the Environment Law, Range Law, Hunting Law, and Tourism Encouragement Law. However, these national-level systemic barriers are being addressed under the ongoing World Bank/ GEF Biodiversity and Natural Resource Management project; (iii) Küre Mountain National Park (KMNP) was included as one of the nine "replication sites" of the BNRMP, based on the original assumption that this MSP will be approved; and (iv) The BNRMP aims to establish a database called "Nuh'un Gemisi"si' in order to monitor existing biodiversity and strengthen protected area management in the country. The proposed project will contribute to the technical strengthening of this database in terms of forest protected areas and establish a biodiversity monitoring system for forest protected areas.

E. DESCRIBE THE INCREMENTAL REASONING OF THE PROJECT:

99. Under the baseline scenario, GoT funds for supporting essential PA management and operations would continue to be inadequate to fully address threats to biodiversity in the nine forest hot spots, including KMNP. Without GEF intervention, the GoT is likely to continue to carry forest conservation activities in protected areas without systematic approach or a comprehensive strategy, especially in terms of utilizing KMNP as a springboard for strengthening the effectiveness and coverage of the national system of protected areas in conserving forest protected areas. Therefore, GoT aims to benefit from GEF support to catalyze such a long-term strategy. Expansion of the protected area system of Turkey is very oportune at this point in time, as the pressures on the productive landscapes are increasing, and absent intervention, significant conservation values stand to be forfeited.

F. RISKS AND RISK MANAGEMENT MEASURES

Risk	Risk rating	Mitigation strategy
The project receives required co-operation from relevant Government, municipalities, NGOs, local villagers, private sector	Low	A very comprehensive stakeholder analysis was undertaken during the preparation stage, based on which a participation plan was designed. All the key stakeholders have been involved in the project design and will continue to be highly involved in the management planning exercise and all the other activities supported by the project.
The strength of other sectors and interest groups causing threats is not more than conservation efforts; or they are open to cooperate.	Low	As threats originating in the buffer zone lie beyond the physical and political control of PA authorities, long-term conservation at the sites will therefore clearly require strong inter-sectoral co-ordination among all institutions that have a mandate in the wider landscape influencing the forest sites. In order to harmonize various planning and land use in the area, the project will collaborate with the relevant local authorities, including, but not limited to the General Directorate of Environmental Impact Assessment and Planning (GDEIAP) with respect to integrating biodiversity concerns into development of the territorial plan of the area.

Government remains committed to bringing all 9 forest hot spots under an effective conservation regime	Low	GOT has already designated one forest protected area and has initiated and funded the preliminary scientific studies for the establishment of the other eight sites. The project is requested and executed by the Ministry of Environment and Forestry and identified and "bringing the forest hot spots" under conservation management/ rotected area status has been identified as one of the top conservation priorities by the Government.

G. COST-EFFECTIVENESS OF THE PROJECT:

100. The planned expansion is cost-effective, as the future costs of restoring the sites, should they be degraded, would be prohibitive, particularly given the sensitivity of these ecosystems. The loss of biodiversity induced by the current practices would likely be irreversible. Close coordination with the BNRMP project will bring additional cost-efficiencies.

H. JUSTIFY THE GEF AGENCY COMPARATIVE ADVANTAGE

101. The GOT has requested UNDP assistance for the design and implementation of this MSP, due to UNDP's proven record in Europe and CIS region and globally in developing the enabling environment for protected area establishment and management in terms of policy, governance, institutional capacity and management know-how. Currently, UNDP is supporting a number of projects in Europe and CIS focused on catalyzing the sustainability of protected areas with an impact on more than 60 protected areas in the region covering more than 16 million hectares.

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINTS AND GEF AGENCIES

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):

(Please attach the country endorsement letter(s) or regional endorsement letter(s) with this template).

Prof. Dr. Hasan Zuhuri Sarikaya National GEF Operational Focal Point, Turkey Undersecretary , Ministry of Environment and Forestry	Date: 3 July 2007

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies and procedures and meets the GEF criteria for project identification and preparation.	
Yannick Glemarec GEF Agency Coordinator	Adriana Dinu Project Contact Person
Date: *(Month, Day, Year)*	Tel. and Email: adriana.dinu@undp.org +421 905 428 238

PART II: Other Agreements

Endorsement and cofinancing letters – are attached in a separate file.

PART III: Terms of Reference for key project staff and main sub-contracts

Position Titles	**Estimated person weeks**	**US $/ person week**	**Tasks to be performed**
For Project Management (only local; no international consultants)			
Project Manager (local)	50	900	Lead the project team in furthering the project's goal, objective, outcomes and activities; Coordinating and managing the project in liaison with the relevant organizations; drawing up the team's schedule of activities; Supervising the management of accounts; Checking that the project outputs are in accordance with the Terms of References and the work plan; Checking the translations of all reports and deliverables; Preparing and delivering all reports and other deliverables; Advising the MoEF, WWF and other relevant agencies on any issue likely to affect the financial resources or the scope of the activities foreseen; Defining measurable indicators for subsequent programme monitoring and evaluation.
Project Assistant (local)	87.5	400	Project Assistant and Financial Officer (PAFO) should have the ability to assume all duties and responsibilities assigned to the Project Coordinator. S/he shall act as the co-director of ECU when the PC is not in the project area. S/he will work closely with the PC, providing a strong local institutional, technical and administrative perspective on the work to be carried out under this contract. In particular, the Project Assistant and Financial Officer will play a key role in providing inputs necessary for successful completion of activities and financial monitoring and reporting.
For Technical Assistance			
Local consultants			
PA Management Expert	150	900	Take the lead responsibility for all project outcomes and activities related to addressing threats to biodiversity within KMNP boundaries. This will include lead responsibilities for strengthening the capacity of local people, NGOs, KMNP management, GDF, and GDNCNP for implementing biodiversity conservation measures, and for sharing experiences with key stakeholders from the other 8 forest hot spots.
Sustainable Forest Management Expert	50	900	Take lead responsibility for project outcomes and activities relating to mitigating threats in the buffer zone relates to unsustainable harvest of non-wood forest resources and soil erosion due to loss of tree cover as a result of intensive felling. The expert will also be responsible for ensuring that experiences at KMNP are shared and disseminated to key stakeholders from the other 8 forest hot spots.
Sustainable Livelihoods Expert	50	800	Take lead responsibility for project outcomes and activities relating to building capacity of community representatives and local NGOs on sustainable management of natural resources in the buffer zone. The expert will also provide advice on increasing access to credit for villagers for sustainable livelihood activities, and on alternatives for increasing biomass production to meet local fuel wood demand. The expert will also be responsible for ensuring that experiences at KMNP are shared and disseminated to key stakeholders from the other 8 forest hot spots.
Legal Expert	20	800	Provide legal advice and inputs on issues related to PA managemnet, sustainable forest management, and sustainable livelihoods.

Position Titles	Estimated person weeks	US $/ person week	Tasks to be performed
Communications/ knowledge management expert	20	800	Take lead responsibility for preparing communications materials to garner broad-based stakeholder support for the project strategy and particularly for developing local advocacy capacities to minimize the adverse impact of development projects in the buffer zone. Given that there are potential threats to biodiversity in the buffer zone from the possibility of new water impoundment projects, the opening up of new roads, and deterioration in water quality from waste and sewage discharge from the transient (tourists) and permanent population, the expert will have to support local stakeholders in maintaining pressure advocating against the implementation of any development projects that could jeopardize the health of the ecosystem. The expert will also be responsible for ensuring that experiences at KMNP are shared and disseminated to key stakeholders from the other 8 forest hot spots.
Evaluation expert (for mid-term and final)	12	800	The role of the national project evaluation consultant(s) will be to participate, alongside with the international consultants, in the mid-term and final evaluation of the project, in order to assess the project progress, achievement of results and impacts. The project evaluation specialists will develop draft evaluation report, discuss it with the project team, government and UNDP, and as necessary participate in discussions to realign the project time-table/logframe at the mid-term stage. The standard UNDP/GEF project evaluation TOR will be used.
International consultants			
PA Management Expert	5	3,000	Support the national PA Management Expert on an as needed basis
PA finance expert	10	3,000	Support the national PA Management Expert on an as needed basis
Evaluation Expert	14	3,000	The international evaluation consultant will chair the group for the final external project evaluation. He/she will work with the local evaluation consultant in order to assess the project progress, achievement of results and impacts. The project evaluation specialists will develop draft evaluation report, discuss it with the project team, government and UNDP, and as necessary participate in discussions to extract lessons for UNDP and GEF. The standard UNDP/GEF project evaluation TOR will be used.

Project Manager (Local)

The Project Manager (PM) will be available for 50 weeks for the whole contract period and should have a solid background in development of integrated action/implementation plans, coordinating/facilitating several working groups and maintaining integrity of the outputs. The Project Manager should have similar project experience in Turkey and his/her work will be to support the Project Coordinator who is the Kure Park Manager . Proven negotiation skills at ministerial level are required.

Qualifications and Skills

The Project Manager should have:

- Graduate level qualification in related field (natural sciences, environmental science, engineering and/ or planning (education and/or experience on forest and protected area management is an asset).
- Excellent communication and leadership skills as a team leader
- Excellent mediating and facilitating skills
- Full computer literacy and fluent in English

Professional experience:

- Minimum of 10 years professional and managerial responsibilities

- Minimum 5 years proven experience in the management of international projects in similar fields
- Experience in administration, programme planning, monitoring and reporting

Specific experience:

- The Project Manager should have specific experience in at least three (3) of the following key areas:
- Minimum 5 years experience in programme execution with relation to implementation of forest and protected area management and sustainable development
- Awareness and understanding of the Biodiversity Conventions
- Minimum of 5 years experience relating to coordinating integrated planning projects
- Minimum 5 years of experience in facilitating roundtables and platform discussions
- Minimum of 5 years experience in Project Cycle Management
- Minimum of 5 years experience of preparation of Terms of Reference for consultancy contracts
- Experience in global and international meetings on various environmental issues

Job description:

- Coordinating and managing the project in liaison with the relevant organizations
- Managing the LCs (including logistics) and drawing up the team's schedule of activities
- Supervising the management of the LCs' accounts
- Checking that the project outputs are in accordance with the Terms of References and the work plan
- Checking the translations of all reports and deliverables
- Preparing and delivering all reports and other deliverables
- Advising the MoEF, WWF and other relevant agencies on any issue likely to affect the financial resources or the scope of the activities foreseen
- Defining measurable indicators for subsequent programme monitoring and evaluation

The PM shall ensure that the PMU complies with all the procedural and contractual obligations of this contract. In this context, it is his/her responsibility to establish the internal management procedures required, particularly as regards procurement, tendering, contracting, reporting, editing and accounting requirements in compliance with UNDP/GEF procedures. The PM will be responsible for establishing the accounting, budgeting and reporting procedures in accordance with UNDP/GEF procedures. S/he shall co-ordinate, supervise, manage, monitor and evaluate all aspects of the project's implementation including financial administration. The PM will, if necessary, identify and recruit additional short-term experts. S/he will be responsible for submitting suitable CVs to the Contracting Authority and the MoEF for final approval before the appointment is confirmed.

The PM will have overall responsibility for the project, including primary contact with the stakeholders and the Steering Committee concerning whether project activities are meeting the agreed objectives. The Project Manager will be responsible for ensuring that all institutional stakeholders are kept informed of the activities carried out under the project, and of project results. It is of particular importance to keep all relevant stakeholders informed, through the Steering Committee process and otherwise, in order to ensure optimum cooperation. The Project Manager will play a major role in all activities.

Project Assistant and Financial Officer (36 m/m, Local)

Qualifications and Skills

- Graduate level qualification in related field such as social sciences, environmental science and/or engineering, economics, natural sciences and/ or planning (plus qualification in business administration is an asset)
- Excellent communication, management and leadership skills
- Full computer literacy

- Fluent in Turkish and English

Professional Experience

- Minimum of 3 years of professional experience
- Minimum of 2 years experience in the planning and implementation of projects and/or programmes relating to the development and implementation of sustainable resource management
- *Specific Experience*
- S/he should have additional experience in sustainable resource management in the following key areas:
- Experience relating to and its implementation in Turkey
- Detailed knowledge of the ministries/institutions responsible for implementing sustainable resource management in Turkey at all levels (national, provincial, local)
- 1 years of experience working in or with international teams in Turkey on projects in the field of sustainable development
- Experience of Project Cycle Management
- Organization of meetings, workshops, seminars

Job description:

Project Assistance and Financial Officer (PAFO) should have the ability to assume all the duties and responsibilities assigned to the PM. S/he shall act as the co-director of ECU when the PM is not on the projec area. S/he will work closely with the PM, providing a strong local institutional, technical and administrative perspective on the work to be carried out under this contract. In particular, the Project Assistance and Financial Officer will play a key role in providing the inputs necessary for the successful completion of the activities and financial monitoring and reporting.

SIGNATURE PAGE

Country: Turkey

UNDAF Outcome(s)/Indicator(s):
_____
(Link to UNDAF outcome., If no UNDAF, leave blank)

Expected Outcome(s)/Indicator (s):
_____
(CP outcomes linked t the SRF/MYFF goal and service line)
_____

Expected Output(s)/Indicator(s):
_____
(CP outcomes linked t the SRF/MYFF goal and service line)
_____

Implementing partner: Ministry of Environment and Forestry
(designated institution/Executing agency)

Other Partners: WWF – Turkey

_____

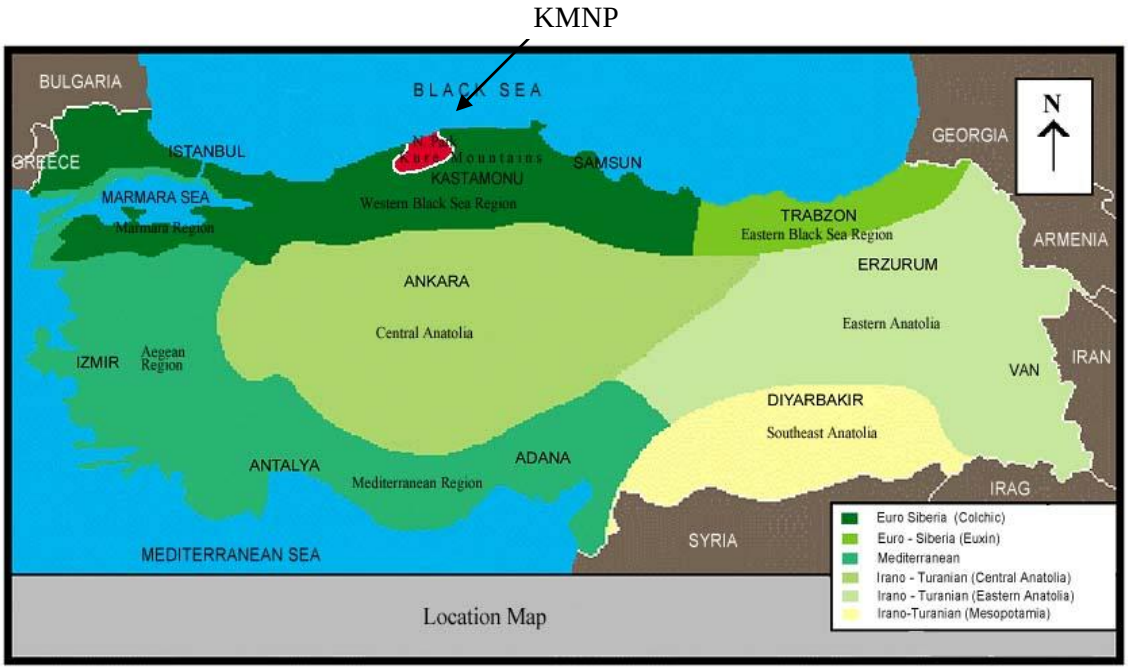
Programme Period:_____
Programme Component:_____
Project Title: Enhancing coverage and management effectiveness of the subsystem of forest protected areas in Turkey's national system of protected areas
Project ID: 00052221
Project Duration:
Management Arrangement: National Execution

Total budget: 2,404,000
Allocated resources: _____
- Government 1,396,000
- Regular _____
- Other:
  - WWF 36,000
  - Donor _____
  - Donor _____
- In kind contributions :

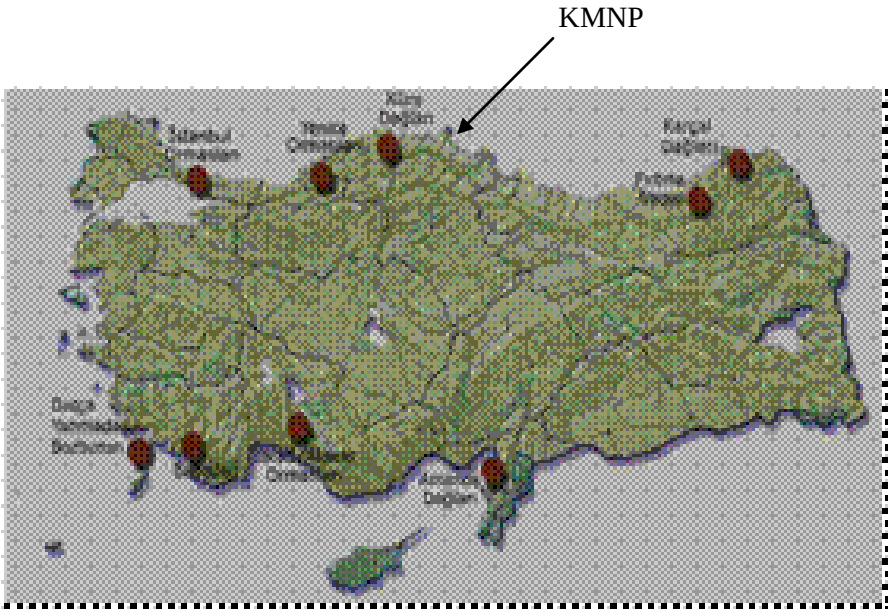
Agreed by (Government of Turkey):
_____
Agreed by (Ministry of Environment and Forestry):
Agreed by (UNDP):_____

ANNEX 1. MAPS

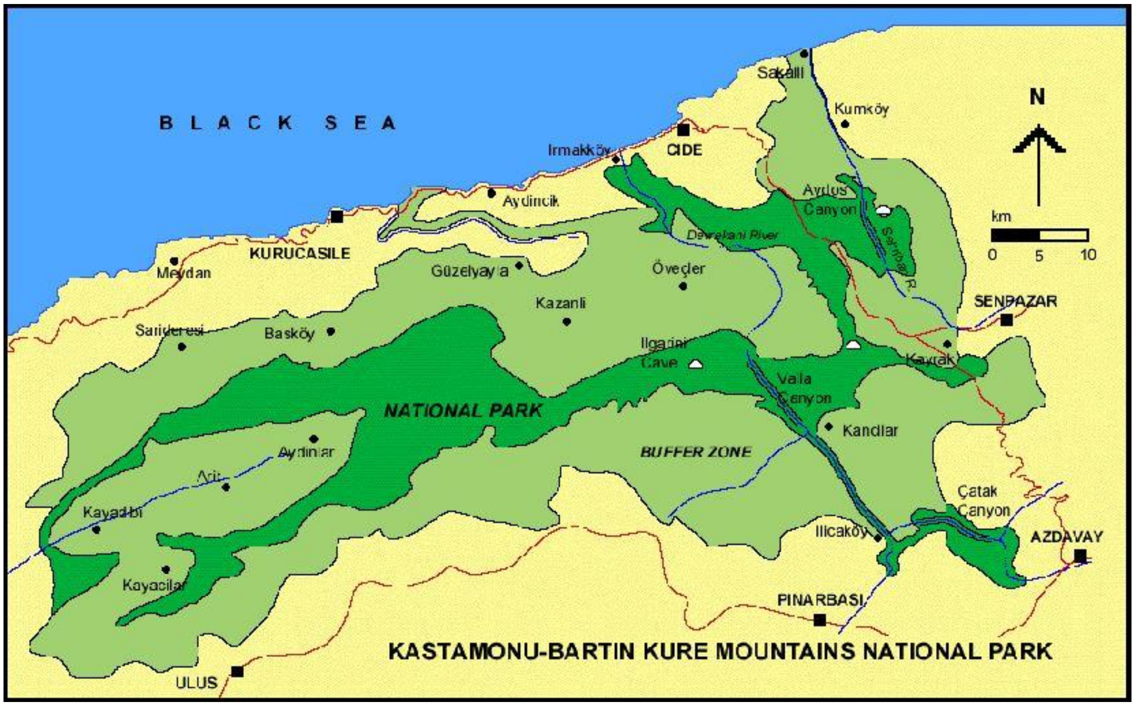
Map 1: Floristic and geographical regions in Turkey



Map 2: Forest hot spots in Turkey



Map 3: KMNP



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Sakalli
Kumköy
CIDE
Irmakköy
Aydincik
Aydos Canyon
Devrekani River
KURUCASILE
Meydan
Güzelyayla
Övecler
SENPAZAR
Kazanli
Sarideresi
Basköy
Ilgarini Cave
Kayrak
Valla Canyon
NATIONAL PARK
Kandilar
Aydinlar
BUFFER ZONE
Çatak Canyon
Kayadibi
Ilicaköy
AZDAVAY
Kayacilar
PINARBASI
KASTAMONU-BARTIN KURE MOUNTAINS NATIONAL PARK
ULUS

ANNEX 2. BIODIVERSITY SIGNIFICANCE

(Extracted from Vural, 2003 and Turan, 2003)

1. General overview of the Kure Mountains

The Kure Mountains is the extension of Eastern Black Sea Mountain system to the west. The project area, covering both the National Park (37,000 ha) and the Buffer Zone (80,000 ha) is situated at the western part of Kure Mountains, the northernmost mountain system on the central Black Sea coast, falling in provincial boundaries of Kastamonu and Bartin. The highest point is Yaraligoz (2,019 m), located in the eastern part of the Kure Mountains, outside the project area. The highest point in the western sector is Ballidağ (1,746 m) in the SW (outside the project area too). The other peaks in this sector are lower than 1,500.

The geology of Kure Mts is composed of a diversity of stones: limestone in the higher elevations; flish, schist and serpantine in the lower slopes. The widespread karstic limestones form the characteristic view of the mountain system. The best samples of this landscape can be seen on the high plateau which forms the core of the National Park area in the western part of the Kure Mountains.

Temperate and humid oceanic climate prevails on the northern slopes facing the Black Sea, while semi-continental transitional climatic conditions are observed on the southern slopes. The average annual rainfall is above 1,000 mm. The rapid flowing rivers and streams (Devrekani, Aydos, Terme, etc) have opened up narrow and deep passageways (Valla, Aydos, Lorc, etc) through the limestone. Dolines, sinkholes and cave systems (Ilgarini, Kizilelma, Cumayani, etc) are typical features of the karstic system.

The core area (N. Park) is delimited by a range of cliffs and canyons which include pristine or semi-pristine natural forests of mixed deciduous and coniferous forests. The vegetation structure of Kure Mountains can be categorized into three main groups:

- Temperate oriental beech and fir forests of Western Black Sea
- Pseudo-maquis formations
- Mixed forests of the karstic area, rich in biodiversity

With a good network of rapid flowing waters, the Kure Mountains has diverse habitats from the sea level to 1,500m, consisting of steep slopes, cliffs, consecutive karstic hills, deep gorges, caves, dolines and grasslands, etc. These habitats host a variety of plant communities, including Mediterranean enclaves, enriching the flora.

30 percent of the total population around the Park lives in district centers, while the remaining 70 percent are in small rural settlements, mostly living with low income and dependent on the use of natural resources (Detailed information on the current socio-economical conditions is available in the Socio-Economic Report). The role of floral wealth on rural life makes it essential to explore ethnobotanical practices in the area too.

The Kure Mountains fall in one of the Global 200 Ecoregions identified by WWF and the IUCN: 'Caucasus and N. Anatolia Temperate Forest'. It was also recognized as one of the forest hot spots in Turkey by WWF's Forest Campaign in 2000. The Western section of the Kure Mountains has been identified as one of the 122 Important Plant Areas in Turkey, by a recent WWF-Turkey study jointly carried out with forty scientists (IPA No.25). An Important Plant Area (IPA) is defined as a natural or semi-natural site exhibiting exceptional botanical richness and/or supporting an outstanding assemblage of rare and/or endemic species and/or vegetation of high botanical value. The Kure Mountains IPA covers western sector of the Kure Mountains system, in the Western Black Sea Region. The Inebolu-Kastamonu highway marks the eastern edge of the western part.

2. General facts about the flora of Turkey and the place of Kure Mountains in Turkey's floristic structure

An overview of the flora of Turkey

Turkey is generally divided into seven main geographical regions: Black Sea (N), Marmara (NW), Aegean (W), Mediterranean (S), Central Anatolia, E Anatolia and SE Anatolia. According to Vegetation Geograpghy, the country falls in three main floristic regions which basically fit the boundaries of geographic regions, each covering more than one region: Euro-Siberia, Mediterranean and Irano-Turanian.

The "Mediterranean Floristic Region" covers the Aegean and the Mediterranean region in the W and SW, while Irano-Turanian covers Central, Eastern and SE Anatolia. The northern belt, covering the Black Sea and Marmara are basically covered by the Euro-Siberia, which is divided into two sub-regions: East of Ordu is called Colchic and the west is Euxin, in which the study area falls (Map 1).

The typical topographic and climatic conditions in each region are different. The coastal regions are characterized by a relief contrasted with high mountain ranges and narrow coastal plains; whereas the typical landscapes in the inland are comprised of high plateaus and plains. Mountains are especially concentrated in the East.

Warm and dry Mediterranean climate prevails in the area stretching from the south of the Marmara Sea (NW) to the Gulf of Iskenderun (S), while Central, Eastern and SE Anatolia have continental climate, characterized by dry and hot summers and severe winters. The typical climate on the northern coastal zone is mild and relatively humid, with good precipitation (>1,000 mm/year, with >2,000 mm/year in the eastern part of the Black Sea Mountains).

Varying topographic and climatic conditions result in unique vegetation cover in each region. Mountains of North Anatolia are characterized by temperate deciduous forest, including alpine meadows. The steppe eco-system is perhaps the most important of all both in economical and ecological points of view as large number of food crops have been derived from their wild species native to Turkey. Wetlands of Central Turkey provide suitable habitats for many endangered bird species. The Mediterranean is unique with its scrub communities, rare, and old forests (e.g. cypress, cedar, liquid amber) and high number of endemic species.

Turkey is one of the most important countries in the temperate world, in terms of floristic diversity. The number of vascular plant species in the country is about nine thousand of which one third grows in Turkey only. Just to compare, the same figure is two thousand in the UK and twelve thousand in the whole European continent. Nearly 1,700 plant species are rare and twelve plant species have disappeared forever.

Main reasons of Turkey's rich biomes and bio-diversity are having been less affected by glaciers compared to northern Europe, overlapping of three phyto-geographical regions (Euro-Siberia, Mediterranean and Irano-Turania) in the country, elevation range between the sea level and 5,000 m, and the influence of various macroclimates (Mediterranean, Oceanic, Continental).

Table 1: The total number of identified, endemic, rare, and extinct species in Turkey
(References: The National Biodiversity Strategy and Action Plan 2001; The World Bank 2001)

Living groups	Identified species	Endemic species	Rare and endang. sp.	Extinct species
Plants				
Nonvascular plants				
Algae	4,500			
Mosses	234			
Lichens	-			
Vascular plants	8,950	3072	3011	12

Ferns	78	1
Seed plants	8,869	
Gymnosperms	22	3
Angiosperms	8,850	3068
Monocotyledons	692	249
Dicotyledons	7,415	2509

What is interesting about the flora of Turkey, together with its species diversity, is the endemism rate. Nearly 3 thousand species out of 9 thousand are unique to Turkey, which implies an endemism rate of 30%. In case, the subspecies are taken into account this rate becomes higher. 3,708 out of 10,754 taxa are endemic (%34.5). Although, the number of endemic species is high in the country, further information about them was not available until recent years. The distribution of endemic plant species according to the 7 geographic regions of Turkey is as below:

Mediterranean	750	Aegean	160
Eastern Anatolia	380	Marmara	70
Central Anatolia	275	SE Anatolia	35
Black Sea	220		

The distribution of endemic species according to the phytogeographic regions in Turkey is as follows:

Irano-Turania	1,220
Mediterranean	1,100
Euro-Siberia	300

When the information on endemic plant species is further analyzed, some mountains and mountain systems are comparatively rich, such as; Ilgaz Mountains in the central north (the nearest mountains system to the Kure Mountains), Amanos Mountains in the central south, Cilo in the SE, the junction of Aegean and Mediterranean in the SW, central Taurus Mountains, Mount Ida and Uludag in the NW, Eastern Black Sea Mountains in the NE, Munzur and Van-Bitlis areas in Eastern Anatolia, the gypsum areas and the salty Lake Tuz area in the Central Anatolia.

Fairly serious studies have been done in recent years especially on the protection of endemics with restricted distribution. First it was determined which international protection categories they belong to and then priority was given to the most threatened and endangered species. Every country is expected to take necessary measures to protect its plant species. Together with laws and regulations for the protection of endangered species, conservation of floristically important areas under protected area status have been very effective. In order to protect the World's wildlife, an international agreement was signed in Bern, Switzerland in 1979. The grouping of endemic and non-endemic species in Turkey according to their protection categories is shown below:

	EX	**EW**	**CR**	**EN**	**VU**	**NT**	**LC**	**DD**	**NE**
ENDEMIC	13	-	163	757	674	816	769	275	3
NON-ENDEMIC	1	-	9	67	764	-	-	246	3
TOTAL	**14**	**-**	**172**	**824**	**1438**	**816**	**769**	**521**	**6**

According to the current data, the number of endemic taxa (including sp and spp) that are under threat (EX, CR, EN, VU, NT, DD) is 2,698. Since there are 10,754 taxa (both species and subspecies level), the rate is 25.0%.

The number of taxa requiring priority attention is (EX, CR, EN, VU) 1,607, which corresponds 15.0% of the flora of Turkey. When non-endemic species are added (841), this figure reaches 2,448 (22.7%).

The global importance of Turkish eco-systems to nature conservation has also been proved by the existence of two terrestrial and one marine Global 200 Ecoregions, which are recognized, by leading international organizations such as WWF and IUCN, as the most important eco-regions on earth in terms

of nature conservation. The forests of Northern Anatolia fall in the 'Caucasus' and the forests in the south fall in the 'Mediterranean' eco-regions; while the Turkish part of the Mediterranean Sea is included in the Mediterranean marine eco-region.

Ethnobotany in Anatolia

Along many historical periods, Anatolia (the Asiatic part of Turkey) has served as a passageway between the continents of Europe, Asia and Africa. The variety of flora, fauna and the culture owe their geographical distribution to this strategic position. A number of human civilizations have come to settle in Turkey from various lands bringing their cultures, religions and customs for many centuries. This cultural heritage and richness of the flora have contributed to high diversity of traditional knowledge and practices of people to use the plants in their daily lives.

In Anatolia, plants have been used as a source of food, remedy, animal fodder, tinder and some utensils since immemorial times. It is reported that the Turkish people -mostly the people who live in rural areas- still use traditional medicine for health care. Despite its significant contribution to the society, ethnobotany has experienced very little attention in modern research and development. It's only recently that, a new interest to document this precious knowledge, which should be considered as part of the common heritage of humanity has emerged. Unfortunately this experience, which has passed on from generation to generation, is rapidly getting lost with modernization of society, especially by development of transportation, migration of people from villages to cities and the availability of modern medicine.

This study will also consider exploring reliable traditional knowledge about the remaining ethnobotanical practices in the Küre Mountains area, before it completely gets lost. A literature survey revealed no previous research about this region directly, but some other papers concerning the ethnobotanical potential of nearby regions (Sadıkoğlu and Alpınar, 2000; Yeşilada et al., 1999; Fujita et al., 1995; Sezik et al., 1992) have been gathered.

3. Current situation of the flora of Kure Mountains and its importance to nature conservation

Although a number of studies in the near environs were conducted to identify the flora (Akman et al. 1983, Ketenoğlu 1997, 1982, 1983; Demirörs 1986; Yurdakulol et al. 1988, 2002), records within the Park teritories is almost non existent. The main reference of the flora of Kastamonu, Zonguldak and Bartın area is the "Flora of Turkey and the East Aegean Islands"(Davis 1965-1985). Mount Ilgaz and Tosya are the two important centers where intensive collections were made as quoted in the study. Many new species were identified in the region.

In order to make a complete and reliable floristic identification of this large area, an intensified site survey will be needed to collect plant specimens and keep them as herbarium material.

3.1 Natural Ecosystems and Habitats

The typical topographic structure of the project area is made up of; a narrow coastal zone, mountains with steep slopes starting immediately after the coast, karstic plateaus and drier slopes facing south. Variety of local climatic conditions, including Oceanic, Mediterranean and semi-Continental, together with slopes facing to humid north and dry south and gorges crosscutting mountains, create an interesting floristic structure with diverse habitats and various plant formations belonging to different floristic regions.

The vegetation cover creates layers from north to south according to the elevational change. A significant number of Mediterranean plant formations can be observed in the coastal zone. Humid deciduous forests dominate the vegetation in the lower sections of slopes. Mesophytic plants cover the inner sections where the landscape is characterized by mountains of medium height (1,000-1,500m). The vegetation of project area roughly displays following layers (Table 1).

Table 1. Vegetation formations

Vegetation formation		**Elevation**
Dune	Dune vegetation	0-10 m
Maquis	Maquis vegetation	10-60 m

Vegetation formation		Elevation
Forest	Pinus brutia (Red Pine) forest	20-120 (260) m
	Castanea sativa (Sweet Chestnut) forest	200-360 (680) m
	Fagus orientalis (Oriental Beech) forest	400(130)-600 (720) m
	Quercus petraea ssp. iberica (Sessile Oak) forest	700(500)-1,000(1,300) m
	Abies nordmanniana ssp. bornmuelleriana (Fir) forest	1,300-1,800 m

3.1.1 SAND DUNE VEGETATİON

Sand dunes are among important habitats which host special vegetation types that are adapted to survive under certain soil and weather conditions and mobile sand particles. The plant species which occur on sand dunes would not be able to survive elsewhere. They are usually regarded as extremely valuable habitats in terms of conservation due to severe development threats they face and their limited populations on earth (Byfield ve Özhatay 1995).

Although none of the 15 most important sand dunes that are proposed to be strictly protected on Turkey's Black Sea coast- identifid by a DHKD (Turkish Society for the Conservation of Nature) and University of Istanbul (Faculty of Pharmaceutical Science, Department of Botany) study titled "The Report on the Conservation of Turkey's Northern Sand Dunes" (1994)- fall in the project area, the beaches of Cide, Sakilli and Zarbana were selected as areas 'worth to explore'. The following information was gathered as a result of the study (see Table 2).

According to the Report, these sand dunes are of relatively low conservation significance in terms of habitat value, species richness and rare species, compared to the other sand dunes in the Black Sea and the Mediterranean. The only rare sand dune species is *Crambe maritima*, which was recorded on the Sakilli Beach.

Table 2. Important dune areas and their characteristics in the W. Kure Mountains area (Byfield and Özhatay 1995)

Sand dunes	**Size**	Flora	**Rare species**	**Threats**
Cide	Small	Eryingium maritimum/ Euphorbia paralias/ Pancratium Cynodon/Paliurus bush/ and grass		Cultivation and grazing *2 Road construction and urbanization *3 Dumping of debris and soil*2
Sakilli	Small	Euphorbia paralias/ Glaucium flavum/ Verbascum sinuatum	Crambe maritima	Grazing*3
Zarbana	Small	Eryingium maritimum/ Euphorbia paralias/Otanthus		Road construction*2

Small: *< 10 ha*
**1: MODERATE* *(less than 5% of the area has been degraded)*
**2: SERIOUS* *(5-15% of the area has been degraded)*
**3: VERY SERIOUS* *(more than % 15 of the area has been degraded)*

3.1.2 MAQUİS

This vegetation formation, which is typical to the Mediterranean, usually appear on the slopes and valleys after sand dunes that are under the impact of marine conditions. They occur within a certain elevation range on base rocks containing silica and develop deep and strong root systems on shallow and stony soils. They therefore, create a dense vegetation cover with shrubs over 2 m in height. The ecological importance of maquis is their adaptability to dry periods of Mediterranean climate by reducing transpiration through their mostly small and dark green leaves.

The maquis formation, which is formed completely through natural processes, is called 'primary maquis'. However, in most cases, the maquis are formed as a result of human impact on evergreen forests, which is called 'secondary maquis'. The frigana and Mediterranean steppes comprising of small shrubs (50 cm) are developed as a result of degradation of maquis (Ketenoğlu *et al.* 1983).

It's quite possible to see Mediterranean elements on the Black Sea coast, such as olive *(Olea europea)*, laurel *(Laurus nobilis)*, myrtle *(Myrtus communis)*, broom *(Genista tinctoria)*, phillyrea *(Phillyrea latifolia)*, strawberry tree *(Arbutus andrachne)* in sheltered areas close to the sea, where the climate is relatively mild. According to the vegetation geographysts, this is the result of the adaptation relict Mediterranean vegetation to present local climatic conditions, which expanded during the climate changes on earth.

Even though, the maquis vegetation partly extends into the inner sections, it usually forms a narrow belt on the coastal zone between the elevations of 10-200m.

The vegetation period is rather long in the coastal sections, where extreme low temperatures causing frost and high temperatures increasing evaporation do not usually happen and oceanic conditions prevail. Some warmth demanding Mediterranean maquis elements mix with hygrophilous species of the Black Sea from the sea level up to 250-300m. This vegetation cover, which is special to the Black Sea, is called *"pseudomaquis".*

The joint study of Ketenoğlu, Akman and Aydoğdu study at the Biology Department of Ankara University (1983), titled *"Phytosociological Studies on the Maquis Formation of Western Black Sea"* reveals the following:

The maquis formation, having a wide distribution in Turkey, shows structural differences in different regions. It has wide and unfragmented distribution in the Mediterranean, Aegean and Marmara, while it is fragmented on the coast of Black Sea. It remains as relicts of the Mediterranean and mixes with Euxin species in the Black Sea, creating a different formation than typical Mediterranean maquis and therefore called "pseudomaquis" (*Arbutus andrachne*, *Phillyrea latifolia*, *Arbutus unedo*, *Osyris alba*, *Asparagus acutifolius*, *Rubia tinctoria*, *Laurus nobilis*, *Myrtus communis*, *Erica arborea*, *Cistus salviifolius*, *C. Creticus*, *Spartium junceum*, *Lathyrus clymenum, etc).* It exhibits an interesting structure in terms of phytosociology."

This is also important for conservation, since the natural Black Sea coastline has been almost entirely destructed by highway construction (Hopa to Sinop and Bartin to Istanbul) and the coastal strip between Bartin and Sinop is probably the last remaining bit of relatively intact Black Sea coastline and is under potential threat of future coastal road construction.

3.1.3 FORESTS

Deciduous forest dominates the vegetation on steep slopes facing the Black Sea. Some Mediterranean enclaves exist in the lower elevations. The pseudomaquis (also called as the Black Sea maquis) of *Laurus nobilis-Phillyrea latifolia* extends up to 60 m. This vegetation is composed of many Euro-Siberian elements together with typical Mediterranean maquis species. The pseudomaquis vegetation is replaced by relict Red Pine (Pinus brutia) forests growing on limestones and sandstones at higher levels (20-220 m).

The Mediterranean vegetation enclaves are replaced by mesophytic forest vegetation at high elevations. The Euxin flora of Euro-Siberian phyto-geographic region is represented by the following forest types: Sweet Chestnut (*Castanea sativa*) [200-360 (-680) m], Hornbeam-Sessile Oak (*Carpinus betulus-Quercus petraea*) [200-1000 m] and oriental beech (*Fagus orientalis*) [(130)400-600(-720) m]. Mixed deciduous forests of diverse tree species are developed on karstic limestones, including *Carpinus betulus*, *Corylus avellana*, *C. colurna*, *Fagus orientalis*, *Fraxinus angsutifolia*, *Ostrya carpinifolia*, *Pistacia atlantica*, *Quercus* spp. ve *Tilia rubra*. These forests have a rich flora. The typical species include *Daphne pontica*, *Lilium martagon*, *Polygonatum multiflorum*, *Ruscus hypoglossum* ve *Salvia forskahlei* and many more.

The fir of W. Black Sea (*Abies nordmanniana* ssp. *bornmuelleriana*) typically forms large stands of pure or mixed forests at 1300-1700 m. Although they are common at high elevations, they can even be seen at 300 m in certain areas. The best examples of pure and mixed fir forest appear between the Village and the Canyon of Valla. Very healthy Fir communities mixed with deciduous trees are present around the Devrekani River.

Fir makes pure forests along the northern facing slopes of Karakuz Dagi in the same area, with masses of Oriental Beech and Scotch Pine. Understorey in these forests are covered by *Corylus avellana*, *Cornus mas*, *Rhododendron ponticum*, *Prunus laurocerasus*, *Ilex aquifolium*, *Ostrya carpinifolia*, *etc*. Pure Beech forests cover the northern facing slopes of Kurtgirmez-Karlidag, Kezbogazi, Damlacik, Armutlu and Aglarkaya areas.

The forests on the southern slopes of Kure Mountains are under the influence of drier and cooler continental climate. Sessile Oak (*Quercus petraea* ssp. *iberica*) and Black Pine (*Pinus nigra* ssp. *pallasiana*) are dominant in these forests and they are accompanied by W. Black Sea Fir (*A. nordmanniana* ssp. *bornmuelleriana*) and Scotch Pine *(Pinus sylvestris*) communities at higher elevations.

At further high zones (1,250 m and above) pure forest of fir comes first and then the Scoth pine *(Pinus sylvestris)*. The forest structure continue with pure Black Pine and mixture of Black Pine *(Pinus nigra)* + Oak *(Quercus petraea subsp. iberica)* towards the inland. Oaks constitute one of the most important deciduous trees. Q. robur, Q. petrea in the coastal zone, Q. infectoria, Q. cerris in the transitional highlands and Q. macranthera subsp. syspirensis, Q. cerris in the inland.

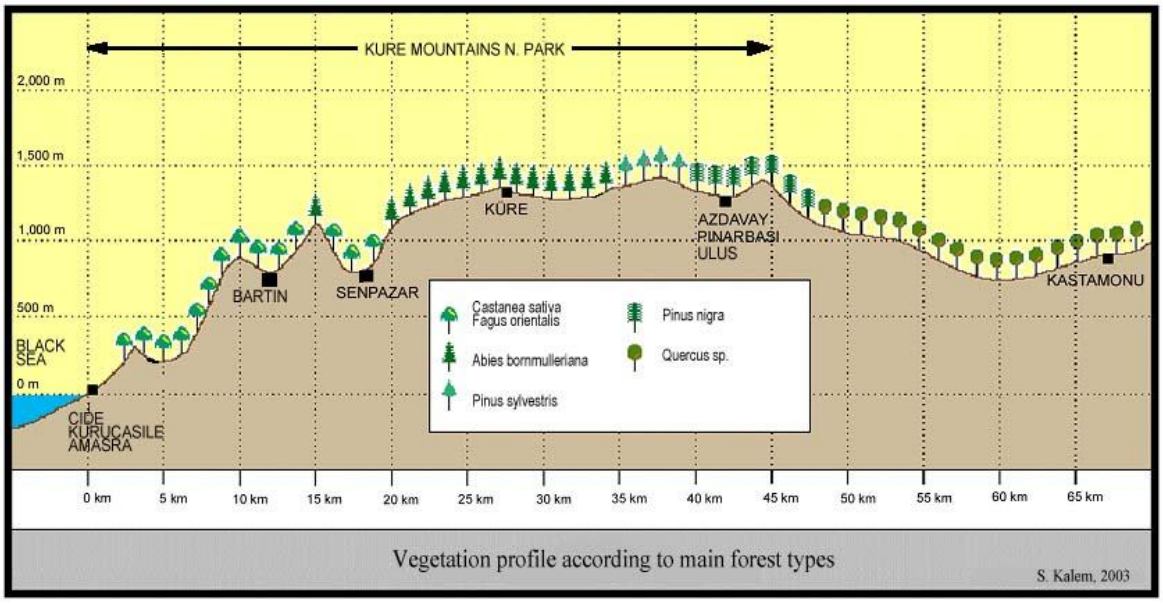


Figure 1: Vegetation profile according to main forest tyes

The river beds at the bottom of valleys represent hydrophytic riverine vegetation, consisting of Willows *(Salix spp.)*, Plane *(Platanus orientalis)* and Poplars *(Populus spp.)* in the form of narrow and long riverine forests. The representatives of rocky vegetation frequently occurring in the Park on calcerous rocks are another special communities.

3.1.4 GRASSLANDS

The grassland formations usually occur in the open spaces of forests and on the alluvial banks of streams. The edges of cultivated lands and forest roads also possess cosmopolitan species and increase floristic richness.

The large grasslands on plateaus, such as Armutlu (Cide), Zoni (Arit), etc are rich in herbaceous plant species. These open spaces are also important feeding grounds for herbivores.

3.2 Species and their conservation status

The flora of Kure Mountains has not been completely identified with a systematic approach, although several individual studies have been conducted in the area.

A rough list of 675 plant taxa is prepared (Attachment 1) based on the review of literature and attached to this report. The List intends to compile the currently available information and does not imply the precise list of the fauna of Kure Mountains. This figure is believed to reach one thousand with further systematic studies, according to the authors who have carried out previous studies in the area. Especially, the inaccessible cliffs are believed to possess many endemic species. Further and more specific studies have to be made for more reliable information.

The status of each plant group is analysed below.

3.2.1 MOSS AND LİCHENS

The Black Sea Region, in which the Kure Mountains fall, is the richest part of Turkey, in terms of water dependent terrestrial moss and lichens (Musci and Hepaticea). The information about terrestrial moss of Turkey used to limited especially to the studies of Henderson D. M. ve Prentice H.T. (1961,1969). The studies on terrestrial moss have been intensified after 1985. Through these studies, Turkey is becoming able to gather more reliable information on its terrestrial moss flora and its distribution. These studies are intensifying in the Black Sea region. Currently, a TUBITAK (The Scientific and Technical Research Council of Turkey) project (TBAG-1858) is under way, led by Cetin and Uyar, to identify the terrestrial moss of the Black Sea region. However, an in-depth study is needed specifically for the Kure Mountains National Park.

Similar studies on lichen groups have been noted in the recent years. Especially, the lichen flora of the eastern sector of Kure Mountains, which falls outside the project area, was studied by Atila Yildiz et al in 2000. The project titled "Biodiversity Survey of the Province of Zonguldak", which is supported by the Governorship of Zonguldak, is currently being executed by Atila Yildiz. Additionally, study on the Lichen Flora of West Black Sea Region has just been completed by the Biology Department of Bursa Uludag University (Öztürk, Ş. ve Güvenç, Ş., 2003). The Database on Turkey's Lichens have been done with significant contribution of the same researchers (TUBİTAK, TBAG, Ç.Sek No: 120 102T145). It is also proposed to survey the lichen flora of Kure Mountains National Park in detail.

Mosses constitute an inseparable part of forest ecosystems and one could not imagine a natural and healthy forest without mosses. They protect water needed by forest plants as they hold water 12 times of their weight. They increase the quality of forest soil and help airing it thanks to their flexible structure. They significantly contribute to the development of forest ecosystem by helping the seeds germinate. Since they have invasive character, they help regeneration of forests after fires.

They are also important sources of food for many animals in the ecosystem as they store minerals. They provide shelter for many insects to survive and lay eggs. It has also been proved that mosses can fulfill an important function in preventing soil erosion in open areas. They are among important natural resources

in producing medicinal raw materials. 40 moss species have been being used since 200 years in China in order to obtain medicinal raw materials for sicknesses/diseases of heart and vein, nervous system, angina, bronchitis, eczema and burn etc.

Another important function of mosses is to help bio-monitoring. Since they are sensitive plants, immediately reacting air pollution or increase of pH in the environment, mapping of contamination in urban areas and industrial zones can be made. Therefore, these maps can be used in decision-making as to in which direction the urban development could be expanded.

Therefore, collection of these plants in many European countries is restricted, while it is uncontrolled in Turkey. Whereas, according to the conventions of Biodiversity, CITES and Bern as well as the National Parks Law, the mosses too, like the other living organisms, should be protected for our ecological and economical future.

There is no wonder that the forests of Kure Mountains are rich in moss flora, since it is situated in the West Black Sea region. However, no reliable and in-depth information is available at this moment, specifically introducing the mosses flora of Kure Mountains. Inventory and analysis of its current situation will be helpful in decision making for the management and protection of Kure Mountains' biodiversity. This would also contribute to the completion of Turkey's Terrestrial Moss Flora (Uyar 2003).

3.2.2 VASCULAR PLANTS

3.2.2.1 Woody Plants

The mesophytic Black Sea forests are typically a mixture of evergreen conifers and deciduous trees. According to the 'Flora of Turkey', the number of trees and shrubs recorded in the provinces of Kastamonu and Zonguldak are 136, of which 8 are conifers: *Abies nordmanniana subsp. bornmuelleriana*, *Pinus nigra*, *P. brutia*, *P. sylvestris*, *Taxus baccata*, *Juniperus communis*, *J. sabina and J. excelsa. Abies nordmanniana subsp. bornmuelleriana* is endemic.

The genuses with more species are Salix, Quercus, Sorbus, Crataegus. 11 out of the 18 Quercus species, 9 out of 23 Salix species, 7 out of 11 Sorbus species and 8 out of 17 Crataegus species growing in Turkey exist in the area. Rosaceaea and Ericaceae are among the best represented families.

Three of these woody species are endemic in LC category: *Rhamnus thymifolius*, *Crataegus tanacetifolia and Quercus macranthera subsp. syspirensis. Crataegus orientalis var. obtusata*, which is specific to the region is vulnerable. Another interesting species to observe in the area is

Crataegus dikmensis. This endemic species is recorded only in three locations in Turkey (Ankara, Zonguldak, Manisa) and has been recently recognized as the synonymous of *C. meyeri.*

3.2.2.2 Herbaceous Plants

Nearly 850 herbaceous plant taxa is estimated to exist in the area. Most of the endangered and vulnerable plant species are in this group.

There is one species in CR category in the Kastamonu (E) section *(Astragalus kastamonuensis)* and none in the Zonguldak (Bartin) section (W).

There are 16 taxa in EN category in the Kastamonu section, both at species and subspecies level. These are: Acanthus dioscoridis var. brevicaulis, Asyneuma ilgazensis, Minuartia mesogitana subsp. flaccida, Cirsium pubigerum var. paphlagonicum, Hieracium macrogonum, Hieracium tuberculatum, Festuca ilgazensis, Paronychia paphlagonica subsp. paphlagonica, P. Paplagonica, subsp. caespitosa, Astragalus panduratus, Astragalus syringus, Trifolium euxinum, Ornithogalum kuereanum, Delphinium ilgazense. 2 species in EN category exist in the Zonguldak section: Onosma bozakmanii ve Verbascum spectabile var. isandrum.

All of the 10 species of DD category are recorded in Kastamonu section: Onosma linearilobum, Hieracium karakolense, Hieracium praelongipes, Hieracium subsilvularum, Hieracium tossianum,

Lamium leucolophum, Astragalus nabelekii, Scrophularia paphlagonica, Verbascum bracteosum, Prangos denticulata.

3.3 Importance of the flora of Küre Mountains to nature conservation

3.3.1. FLORISTIC RICHNESS

Although the figures in different references (Attachment 1 and 2) do not completely match each other in terms of precise figures, such as the number of plant taxa, endemics, rare and endangered species (in fact the total number of plants can not be confirmed), they have one thing in common: The flora of Kure Mountains is rich.

The Western section of the Kure Mountains has been identified as one of the 122 Important Plant Areas in Turkey, by a recent WWF-Turkey study jointly carried out with forty scientists (IPA No.25). The Kure Mountains is classified as a 'VULNERABLE' site in the study. See, Attachment 2 for further information.

According to the rough plant list (Attachment 1) prepared for this report, at least 675 plant taxa is known to exist in the area. However, this figure is believed to reach one thousand with further systematic studies.

Scientific names of many species have been named after the historical Paphlagonia area (-*paphlagonicum*), the Kure Mountains (-kuereanum) and Kastamonu (- *kastambulense*), etc. Specimens of at least 18 plants have been collected from the area. The area is also rich in members of the Orchidaceae family: *Corallorrhiza trifida*, *Dactylorhiza ilgazica*, *Epipactis condensata*, *E. helleborine*, *E. palustris*, *E. persica*, *E. turcica*, *Epipogium aphyllum*, *Goodyera repens*, *Himantoglossum caprinum*, *Listera cordata*, *L. ovata*, *Neottia nidus-avis*, *Ophrys sintenisii*, *Orchis pallens*, *O. pinetorum*, *Platanthera bifolia*, *P. chlorantha* ve *Steveniella satyrioides. Among these orchids*, *Himantoglossum caprinum* and *Steveniella satyrioides are in the Appendix I of the Bern Convention.*

The flora of Western Kure Mountains are recorded in the provinces of Kastamonu and Zonguldak (Bartin was previously a district of this province and became a seperate province recently). The endangered species that need priority monitoring mostly fall in the Kastamonu section: 1 species under the CR category *(Astragalus kastamonuensis)* and 16 taxa (sp and spp) under the EN category. The species under CR category in Zonguldak (Bartin) is none. The 2 species under the EN category are *Onosma bozakmanii* and *Verbascum spectabile var isandrum.* The 10 species of the area under DD category are all recorded in Kastamonu. The distribution of these species have to be found out in the National Park area, and data on their populations have to be collected.

3.3.2 NATURALNESS AND MATURİTY

The western part of Kure Mountains, where the National Park is situated, display unique forest compositions thanks to its karstic landscape combined with humid atmospheric conditions. The unfragmented pristine forest ecosystems on steep karstic slopes are in fairly good condition. Especially, the karstic depressions south of Cide and valleys which create secluded environments have trees and shrubs special to humid forests: Boxwood *(Buxus sempervirens)*, hop hornbeam *(Ostrya carpinifolia)*, sorbus *(Sorbus aucuparia)*, Turkish hazelnut *(Corylus colurna)*, hornbeam *(Carpinus betulus)*, sambucus *(Sambucus ebulus)*, maple *(Acer platanoides)*, holly *(Ilex aquifolium)*, *vb.* The composition of these species may even dominate the vegetation in certain areas such as karstic depressions near Armutcay.

The karstic depressions on the high plateau create localities with relatively high humidity, where samples of giant old trees can still be seen thanks to intact nature. The old trees include, Caucasian Lime *(Tilia rubra)* 35-40m in height and 80-90cm in diameter; Turkish hazelnut *(Corylus colurna)*, ash *(Fraxinus angustifolia)*, holly *(Ilex aquifolium)*, elm *(Ulmus glabra)*, plane leaved maple *(Acer platanoides)* of 20-30m in height and 40-50 cm in diameter. These sites are regarded as 'natural arboretums' by scientists who have visited the area.

There are many old trees in the forest. The twelve stemmed giant beech trees with 35-40 m height are protected as natural monument.

3.3.3 RARE AND ENDAGERED SPECİES AND HABİTATS

Within the limits of available information in Appendix 1, among the total of 675 plant taxa, 109 species are 'Endemic' (E), 49 'Rare' (R). Out of a total of 47 Endangered (EN) taxa, 2 are 'Globally', 33 are 'European-wide' and 12 are 'Nationally' endangered. A total of 58 taxa are at 'Lower Risk' (LR), of which 3 are 'conservation dependant' (CD), 3 are 'near threatened' (NT) and 52 are of 'least concern' (LC). There are two Bern species.

According to the Important Plant Areas study, 80 endemic species have been recorded in the Kure Mountains, of which 33 are nationally rare. The area hosts 47 endangered plant taxa.

GLOBALLY ENDANGERED SPECIES [2 TAXA]
Acer cappadocicum var. *stenocaryum* [END, **V**], *Trifolium euxinum* [END, **V**]
ENDANGERED SPECIES AT EUROPEAN SCALE: [33 TAXA]
Acanthus dioscoridis var. *brevicaulis* [END, **R**], *Allium ilgazense* [END, **R**], *A. kastambulense* [END, **R**], *Arabis abietina* [END, **R**], *Astragalus kastamonuensis* [END, **K**], *A. syringus* [END, **R**], *Centaurea paphlagonica* [END, **R**], *Cephalaria paphlagonica* [END, **R**], *Colchicum bornmuelleri* [END, **R**], *Dactylorhiza ilgazica* [END, n/l], *Delphinium bithynicum* [END, **R**], *D. ilgazense* [END, **R**], *Erodium birandianum* [END, n/l], *Helichrysum paphlagonicum* [END, **R**], *Heracleum paphlagonicum* [END, **R**], *Himantoglossum caprinum* [n/l], *Lamium leucolophum* [END, **K**], *Minuartia gracilis* [END, **R**], *M. mesogitana* ssp. *flaccida* [END, **K**], *Onosma paphlagonicum* [END, **K**], *Paracaryum paphlagonicum* [END, **R**], *Paronychia paphlagonica* [END, **R**], *Prangos denticulata* [END, **R**], *Scabiosa columbaria ssp. paphlagonica* [END, n/l], *Scrophularia paphlagonica* [END, **K**], *Sempervivum gillianii* [END, **R**], *Seseli resinosum* [END, **R**], *Silene paphlagonica* [END, **R**], *Steveniella satyrioides* [n/l], *Tripleurospermum rosellum* var. *album* [END, **R**], *Verbascum eriocarpum* [END, **K**], *V. myrianthum* [END, **R**], *V. ponticum* [END, **R**]
THE OTHER NATIONALLY RARE SPECIES [11 TAXA]:
Alnus glutinosa ssp. *glutinosa* [**R**], *Arenaria filicaulis* ssp. *filicaulis* [**R**], *Carex flacca* ssp. *serrulata* [**R**], *Corallorrhiza trifida* [**R**], *Doronicum orientale* [**R**], *Epipogium aphyllum* [**R**], *Ilex aquifolium* [**R**], *Lilium martagon* [**E**], *Listera cordata* [**R**], *Potentilla umbrosa* [n/l], *Stellaria graminea* [**R**]
There are two species, which are listed in the Appendix 1 of the Bern Convention: *Himantoglossum caprinum* ve *Steveniella satyrioides*.
The endangered habitats of the Bern Convention that are present in the area are: *41.1E1 – Beech forests of the Western Black Sea, 41.2C – Southeast Europe oak-hornbeam forests, 41.47 – Euxin riverine forests, 41.7B12 – Inner Black sea oak forests, 42.1722 – Black Sea boxwood-fir forests, 42.1723 – W. Black Sea Euxin beech-fir forests, 42.5F11 – W. Black Sea Euxin Scotch Pine forests, 42.66413 – Pre-Pontic Black Pine forests*.

3.4 Status of the wild mushrooms

3.4.1 USE OF MUSHROOMS IN THE KURE MOUNTAINS AREA

The abundance of edible mushrooms in the area provides an opportunity for local people to benefit from it. Since the local people are allowed to collect non timber forest products, it is estimated that they collect serious amount of mushrooms, although no reliable data is available. They consume some of the mushrooms and sell the rest usually in the local markets without processing. (Afyon ve ark. 2000, 2001a, b, c). However, the abundance of poisionous mushrooms together with edible, puts the local people under risk. Therefore, there is a need to learn more about their identification, uses, adequate processing methods as well as their conservation value. The wild mushrooms can create an alternative income for local people in case it is planned and produced wisely. The mushrooms are also used as indicators of environmental pollution, as they accumulate heavy metals. They have antibacterial and antiviral impacts as well.

3.4.2 THREATS AND OPPORTUNITIES

Since, the fungi reproduce through spores, they easily grow as soon as suitable ecological conditions prevail. But, their short lifetime and the threats on their habitats (especially the plants on which they live;

'mycorrhiza') jeopardize their presence. Particularly, the *Morchella sp.* and *Cantharellus cibarius* are in decreasing trend due to unsustainable collection for export. Ecologically, such fungi species also support forest trees by forming mycorrhiza on them. Therefore, raising awareness among local people is important.

4. Fauna

Turkey hosts a wide faunal diversity due to its geographical location, varying climate and floristic diversity. The current number of faunal species throughout the country is more than 80.000 (Ketenoglu, et. al., 2001). However, studies on fauna do not have a long history. The number of studies conducted in areas like the Kure Mountain region is low. Now that modern capabilities have proved that valuable gene resources can be obtained from the forests, it is unacceptable not to be aware of Turkey's natural heritage. This was the driving force for this study and some data have been collected to form an opinion about the fauna of the Kure Mountain National Park.

4.1 Amphibians (Amphibia)

Generally, amphibian habitats are getting smaller continuously on a large scale. Habitats that were well qualified for amphibian life were found and specified during field research in 2001. During the limited observations on fauna in the central and eastern parts of the National Park, amphibians were found to live both in the National Park and in the surrounding area. Data obtained from these short-term observations, interviews with local residents, and literature reviews reveal that at least 7 amphibian species classified under 4 families exist in the region. There has not been another study on the local amphibian species since, aside from our findings. Although the time and area of this study was limited, the number of species identified was more than 1/3 of amphibian species found in Turkey. A systematic study conducted by experts in the area will greatly enrich scientific data regarding amphibian life.

4.2 Reptiles (Reptilia)

Throughout the Black Sea region, there are a relatively large number of terrestrial vertebrate. The abundance of local sheltered spaces unaffected by humans has had an important role in this richness. A study on reptiles living within the National Park territories reveals that 17 reptilian species belonging to 8 reptilian families exist. Two of these species are turtles and the rest include lizards and snakes. The reptilian fauna of the Park is remarkable when it is compared with the entire reptilian species in Turkey. Future systematic studies of herpetologists in the National Park and vicinity will provide greater number of scientifically valuable data regarding both the family and the species.

4.3 Birds (Aves)

Observations were held within the Kure Mountains National Park and its vicinity in March, April, and May 2001 to identify species and features of birds both living in the area and those migrating to the region or just passing through. Local people were requested to answer questionnaires during a one on one interview. Data related to the bird species existing in Valla Canyon in the Park collected by Kiziroğlu (1999) was also used. According to this study, there were 129 bird species belonging to 37 families in the area. These figures were replaced by 147 species of 40 families as a result of our avifaunal observations and evaluations. We observed some species not included in Kiziroglu's list.

The national Park has a great variety of raptor bird fauna. The European Sparrowhawk (*Accipiter nisus*), Northern Goshawk (*Accipiter gentilis*), Buzzard (*Buteo buteo*), Peregrine Kestrel (*Falco peregrinus*), and Egyptian vulture (*Neophron percnopterus*) are some of the raptor species, which need vast open areas. The raptors are among the most endangered species. Availability of sufficient food and adequate habitats within the Park provide suitable conditions for their presence.

In some parts of the National Park, there are specific areas that are home to seasonal, migrating birds. Some of the water birds mentioned by Turan (2002 a) are found in the small wetlands of the Park in winter. Bird species are known to reside in both interdependent and independent habitats. Thus, observations of all habitat types should continue.

Winter observations could not be made during the preparation of this report. Therefore, data collection was done through interviews with local people and forest staff, and literature review.

The current number of bird species found in the region, 147, is significant in relation to the total found in Turkey, 454.

4.4 Mammals (Mammalia)

Our observations and interviews with local people in the area in 2001 revealed a wide variety of mammal fauna exist in the area. There were few studies related to this fauna prior to this time. Ozen (1993) and Pamukoglu et. al. (1996) were the only ones to carry out systematic studies on the mammal species existing in the region. Evaluation of the data obtained from our field observations in the central and eastern parts of the National Park in 2001 and 2003, interviews with local people, and studies of the above-mentioned researchers indicates that 32 mammal species under 13 families exist in the National Park and its vicinity. Therefore, nearly 1/4 of Turkey's mammal fauna (130 species) exists in the area.

Priority mammal species include the following:

European wildcat (*Felis sylvestris*) and **Lynx** (*Felis lynx*)These species are at the top of the list of mammal species nearly extinct. It was a pleasure to learn from our questionnaires that these two species exist in the area. Meanwhile, the lack of confirmation via scientific research or reliable observation provides no solid proof. These rare species will be added to the list of mammals in the region if solid evidence can be provided. Special policies and protective strategies regarding the two species shall also be developed.

Brown Bear (*Ursus arctos*)The Brown Bear is one of the species under protection. Their number in Turkey is gradually decreasing. The bears currently live in certain geographical regions in sparse populations in Turkey. Although, it is known that there is a wide distribution of brown bear within the Park, there is no reliable data regarding the exact size of the population. This makes it more difficult to define the legal status of the species both in the region and in Turkey. Reliable data on the size and population growth is necessary to ensure a safe future for the bear. Today, poaching and habitat degradation are the greatest threats for Brown Bear in Turkey. These factors have caused serious decline in the population. Therefore, safeguarding of Brown Bear habitats in the Kure Mountains, most of which are still in good quality, is critically important for the future of this species in Turkey.

Otter (*Lutra lutra*) Otter is endangered in Europe, due to contamination of water and changing of natural water regime. Today, just a small number of otters are trying to survive in a few relatively unpolluted and preserved localities. The Kure Mountains is one of these areas. However, it is understood that the otter was hunted by local residents in the past. Certain habitats are known to exist in some of the rivers in the area, but, on a whole, scientific data is insufficient concerning the populations.

Red Deer (*Cervus elaphus*)Local residents and scientific observation both confirm the existence of this species in the National Park. In spite of the fact that the Red Deer's existence is scientifically confirmed through observations, there is no reliable data on the population level. The local people stated that the species is represented by a small number. Suppressed by illegal hunting, the future existence of the species can only be guaranteed through protection measures based on reliable studies.

The **Roe deer** (*Capreolus capreolus*), whose population is decreasing, also find suitable habitats in and around the Park. This species is also threatened by intensive illegal hunting. Reliable data about the size of its population is needed to analyse the impact on the Roe Deer living in and moving between the Park and the buffer zones.

Bats (Chiroptera)

According to the result of the evaluation of experts, 32 bat species exist and they are under protection status in Turkey. Despite the fact that at least 10 distinct bat species were observed in the Park, identification of species was avoided because it required specific background knowledge. There are many areas in the National Park, which provide excellent habitats for bats away from anthropogenic effects.

These areas include various geological formations ranging from several kinds of hollows to large caves, forests, and the other suitable habitations.

Wild Boar (*Sus scrofa*)

The Wild Boar is a mammal species with large populations and wide distribution. The hunting of this species is not forbidden, as they cause damage to crops of the local residents and they are regarded precious game animals. After an inventory study in the National Park, new regulations on hunting Wild Boar may be initiated.

Other Mammal Species

Majority of other mammal species living in the area, aside from rodents (Rodentia), are under legal protection. Although their populations are larger than the endangered species, they are still under threat in Turkey. The most significant animals are the **Caucasian Squirrel** (*Sciurus anomalus*), **Jackal** (*Canis aureus*), **Wolf** (*Canis lupus*), **Red Fox** (*Vulpes vulpes*) and **Marbled Polecat** (*Vormela peregusna*).

4.5 Fish

The rivers in the area host various fish species. A trout species (*Salmo trutta gardneri*) was also inoculated in the rivers by locals. This risky interference, spurred by commercial interests, has posed a big threat to regional bio-diversity. Local trout and other fish populations are in danger of extinction due to this interference, because such actions lead to great ecological changes. Though not large scaled, the fishing in this area is generally done through illegal means of fishing lines and fishnets. Unfortunately, there is a lack of reliable data about the fish species, including their status and population level. The status of indigenous fish species has to be thoroughly studied for conservation purposes as well as for sustainable recreational use.

4.6 Insects

Turkey has a wide range of insect fauna, a great deal of which has not been studied yet. The National Park has the necessary terrestrial and aquatic habitats to sufficiently meet vital requirements of the insect species. The insects are also sustained due to limited intensive agricultural practices. Usually, chemicals are not used as a method to control fly and mosquito populations. The only predator of the insect fauna is the natural ones. The number of insect species in the region is expected to exceed the average with reference to habitat diversity. There have been no studies on the insect fauna of the region. Only a specific project was recently initiated by Kastamonu Faculty of Forestry regarding the bark beetles affecting the forest trees.

5. Importance of the fauna of Kure Mountains to nature conservation

An integral part of the studies on species is defining their conservation status. National and international criteria are taken into consideration in defining the conservation status of species. International agreements, (such as the RAMSAR, BERN, and BONN Conventions) regarding preservation of the faunal elements living in certain habitats; national (Red Data Book for Turkish Bird Species) and international lists, (European Red List issued by IUCN); and laws (such as the Land Hunting Law No. 3167) bear binding rules for the preservation fauna.

a) Amphibians: Almost all of the amphibian species occurring in the area are under legal protection in accordance with the Bern Convention and European Red List criteria.

b) Reptiles: Evaluations reveal that most reptile species of the area are under protection in compliance with Bern Convention. For example, most snake species in the area are included in the list of "Species Under Strict Protection" of the Bern Convention (Appendix II), and many lizard species fall under the category of "Species Under Protection" (Appendix III).

c) Birds and mammals: A great many bird species found in the National Park are also included in protection lists prepared by the Bern Convention, the European Council Directive on the Protection of Wild Bird Species and the General Directorate of Nature Conservation and National Parks (GDNCNP).

The data regarding the protection of mammal species exist in the lists of the GDNCNP, Bern Convention, European Red List and European Vertebrate Red Data Book. These species have varying protection status.

According to the review of various scientific literature, the number of fauna species is estimated to total 214 consisting of 34 mammal, 121 bird, 12 reptile, 8 amphibian, 39 freshwater fish species. The distribution of species according to various protection categories in shown below.

Table 3: Distribution of fauna species by protection category

Groups	Ex	En	V	R	I	O	nt	K	E	Red List	Bern	CITES	WCMC	Total
Mammals	-	6	10	9	-	-	16	-	-	9	23	9	5	**34**
Birds	-	-	-	-	-	-	-	-	4	38	111	27	1	**121**
Reptiles	-	-	-	-	-	-	12	-	1	-	-	-	-	**12**
Amphi-bians	-	-	-	-	-	-	8	-	1	-	-	-	-	**8**
Fish (Fr.water)	-	-	-	-	-	-	-	-	2	-	-	-	-	**39**
TOTAL	**-**	**6**	**10**	**9**	**-**	**-**	**36**	**-**	**8**	**47**	**134**	**36**	**6**	**214**

Key
IUCN Red List: Ex: Extinct, En: Endangered, V: Vulnerable, nt: Nearly threatened, R: Rare, I: Indeterminate, K: Insufficiently known, O: Out of danger, E: Endemic .
WCMC: Taxons that are recommended to be protected by the World Conservation Monitoring Center
Bern – Convention on the Conservation of European Wildlife and Natural Habitats CITES - Convention on International Trade in endangered Species of Wild Fauna and Flora

Table 4. Amphibian species from Küre Mountains and their threat status

	Threat Status				
	International				**National**
Scientific Name	**BERN**		**ERL**		
	App II	App III	Vu	Lr/nt	
URODELA					
SALAMANDRIDAE					
Triturus vittatus ophyrticus	--	+	--	--	--
Triturus karelini	+	--	--	--	--
ANURA					
PELOBATIDAE					
Pelobates syriacus	+	--	--	--	--
BUFONIDAE					
Bufo bufo	--	+	--	--	--
Bufo v. viridis	+	--	--	--	--
Hyla arborea arborea	+	--	--	+	--
Rana ridibunda	--	+	--	--	--
Total	4	3	--	1	--

Table 5. Reptilian species from Küre Mountains National Park and their threat status

	Threat Status				
	International				National
Scientific Name	BERN		ERL		CHC
	App II	AppIII	Vu	Lr/nt	
TESTUDINIDAE					

Testudo graeca	+	--	+	--	+
Emys orbicularis	+	--	--	+	+
GEKKONIDAE					
Hemidactylus turcicus	--	+	--	--	+
AGAMIDAE					
Laudakio stellio	+	--	--	--	+
SCINCIDAE					
Ablepharus kitaibelli	+	--	--	--	+
LACERTIDAE					
Lacerta saxicola			--	--	--
Lacerta parva	+	--	--	--	+
Lacerta trilineata	+	--	--	--	+
Lacerta viridis meridionalis	+	--	--	--	+
ANGUIDAE					
Anguis fragilis	--	+	--	--	+
Ophisaurus apodus	+	--	--	--	+
TYPHLOPIDAE					
Typhlops vermicularis	--	+	--	--	+
COLUBRIDAE					
Coronella austriaca austriaca	+	--	--	--	+
Eirenis modestus	--	+	--	--	+
Elaphe quatorlineata sauromates	+	--	--	--	+
Natrix natrix persa	--	+	--	--	+
Natrix tesellata tesellata	+	--	--	--	+
Total	11	5	1	1	16

Table 6. Bird species from Küre Mountains and their threat status

	BERN		ERL			
Scientific Name	App.II	App.III	Vu	Lr/nt	Protection	RDB
GAVIIDAE						
Gavia immer	+	--	--	--	+	B.2
PODICIPEDIDAE						
Tachybaptus ruficollis	+	--	--	--	+	A.2
PHALACROCORACIDAE						
Phalacrocorax aristotelis	+	--	--	--	+	A. 2
ARDEIDAE						
Ardea cinerea	--	+	--	--	+	A. 3
Ardea purpurea	+	--	--	--	+	A. 2
Egretta garzetta	+	--	--	--	+	A. 2
CICONIDAE						
Ciconia ciconia	+	--	--	--	+	A. 3
Ciconia nigra	+	--	--	--	+	A. 2
ANATIDAE						
Cygnus olor	--	+	--	--	+	A.1.2
Anser anser	--	+	--	--	+	A. 2
Anser albifrons	--	+	--	--	--	B. 2
Tadorna tadorna	+	--	--	--	+	A. 2
Tadorna ferruginea	+	--	--	--	+	A. 2
Anas platyrhynchos	--	+	--	--	--	A. 4
Aythya ferina	--	+	--	--	--	A. 4
ACCIPITRIDAE						
Milvus migrans	+	--	--	--	+	A. 4
Accipiter nisus	+	--	--	--	+	A. 4
Accipiter gentilis	+	--	--	--	+	A. 3
Circus pygarcus	+	--	--	--	+	A. 3

Buteo rufinus	+	--	--	--	+	A. 2
Buteo buteo	+	--	--	--	+	A. 3
Gypaetus barbatus	+	--	--	--	+	A. 2
Neophron percnopterus	+	--	--	--	+	A. 3
Gyps fulvus	+	--	--	--	+	A. 2
Aegypius monachus	+	--	--	--	+	A. 2
FALCONIDAE						
Falco tinnunculus	+	--	--	--	+	A. 4
Falco naumanni	+	--	+	--	+	A. 3
Falco peregrinus	+	--	--	--	+	A. 2
Falco biarmicus	+	--	--	--	+	A. 2
Falco eleonorae	+	--	--	--	+	A. 1.2
Falco vespertinus	+	--	--	--	+	A. 1.2
PHASIANIDAE						
Alectoris chukar	--	+	--	--	--	A. 2
Perdix perdix	--	+	--	--	+	A. 3
Coturnix coturnix	--	+	--	--	--	A. 4
Phasianus colchicus	--	+	--	--	+	A. 1.2
SCOLOPACIDAE						
Tringa nebularia	--	+	--	--	+	B. 3
Tringa hypoleucos	+	--	--	--	+	A. 3
COLUMBIDAE						
Columba livia	--	+	--	--	--	--
Columba oenas	--	+	--	--	+	A. 2
Columba palumbus	--	--	--	--	--	A. 4
Streptopelia decaocto	--	+	--	--	--	--
Streptopelia turtur	--	+	--	--	--	A. 2
CUCULIDAE						
Clamator glandarius	+	--	--	--	+	A. 4
Cuculus canorus	--	+	--	--	+	--
STRIGIDAE						
Bubo bubo	+	--	--	--	+	A. 1.2
Asio otus	+	--	--	--	+	A. 2
Otus scops	+	--	--	--	+	A. 3
Athena noctua	+	--	--	--	+	A. 3
Strix aluco	+	--	--	--	+	A. 1.2
TYTONIDAE						
Tyto alba	+	--	--	--	+	A. 2
APODIDAE						
Apus apus	--	+	--	--	+	A. 4
Apus melba	+	--	--	--	+	A. 4
ALCEDINIDAE						
Alcedo atthis	+	--	--	--	+	A. 1.2
MEROPIDAE						
Merops apiaster	+	--	--	--	+	A. 4
CORACIDAE						
Coracias garrulus	+	--	--	--	+	A. 2
UPUPIDAE						
Upupo epops	+	--	--	--	+	A. 2
PICIDAE						
Picus viridis	+	--	--	--	+	A. 2
Picus canus	+	--	--	--	+	A. 3
Dryocopus martius	+	--	--	--	+	A. 3
Dendrocopus major	+	--	--	--	+	A. 3
Dendrocopus syriacus	+	--	--	--	+	A. 3

Dendrocopus medius	+	--	--	--	+	A. 3
Dendrocopus minor	+	--	--	--	+	A. 4
PASSERES						
ALAUDIDAE						
Melanocorypa calandra	+	--	--	--	+	--
Galerida cristata	--	+	--	--	+	--
HIRUNDINIDAE						
Hirundo rustica	+	--	--	--	+	--
Hirundo daurica	+	--	--	--	+	--
Riparia riparia	+	--	--	--	+	--
Ptyonoprogne rupestris	+	--	--	--	+	--
Delichon urbica	+	--	--	--	+	A. 4
MOTACILLIDAE						
Motacilla flava	+	--	--	--	+	--
Motacilla cinerea	+	--	--	--	+	A. 4
Motacilla alba	+	--	--	--	+	A. 4
CINCLIDAE						
Cinclus cinclus	+	--	--	--	+	A. 3
TROGLODYTIDAE						
Troglodytes troglodytes	+	--	--	--	+	A. 3
PRUNELLIDAE						
Prunella modularis	+	--	--	--	+	--
Prunella collaris	+	--	--	--	+	--
Prunella ocularis	+	--	--	--	+	--
TURDIDAE						
Cercotrichas galactotes	+	--	--	--	+	--
Erithacus rubecula	+	--	--	--	+	--
Luscinia luscinia	+	--	--	--	+	--
Luscinia megarhynchos	+	--	--	--	+	A.3
Irania gutturalis	+	--	--	--	+	--
Phoenicurus ochruros	+	--	--	--	+	--
Phoenicurus phoenicurus	+	--	--	--	+	--
Saxicola torquata	+	--	--	--	+	--
Oenanthe oenanthe	+	--	--	--	+	A. 3
Oenanthe hispanica	+	--	--	--	+	--
Oenanthe isabellina	+	--	--	--	+	--
Monticola saxatilis	+	--	--	--	+	--
Monticola solitarius	+	--	--	--	+	--
Turdus merula	--	+	--	--	--	--
Turdus philomelos	--	+	--	--	+	--
Turdus viscivorous	--	+	--	--	+	--
SYLVIDAE						
Cettia cetti	+	--	--	--	+	A. 4
Acrocephalus arundinaceus	+	--	--	--	+	--
Hippolais icterina	+	--	--	--	+	A. 3
Hippolais pallida	+	--	--	--	+	--
Sylvia melanocephala	+	--	--	--	+	--
Sylvia hortensis	+	--	--	--	+	--
Sylvia communis	+	--	--	--	+	--
Sylvia atricapilla	+	--	--	--	+	--
Phylloscopus inornatus	+	--	--	--	+	--
Phylloscopus bonellii	+	--	--	--	+	--
Phylloscopus collybita	+	--	--	--	+	--
Regulus regulus	+	--	--	--	+	--
Regulus ignicapillus	+	--	--	--	+	--

Prinia gracilis	+	--	--	--	+	--
MUSCICAPIDAE						
Muscicapa striata	+	--	--	--	+	--
Ficedula hypoleuca	+	--	--	--	+	--
Ficedula semitorquata	+	--	--	--	+	--
PARIDAE						
Parus ater	+	--	--	--	+	--
Parus caeruleus	+	--	--	--	+	--
Parus major	+	--	--	--	+	--
Parus lugubris	+	--	--	--	+	A. 4
SITTIDAE						
Sitta europeae	+	--	--	--	+	--
Sitta krüperi	+	--	--	--	+	--
Sitta tephronata	+	--	--	--	+	--
TICHODROMADIDAE						
Tichodroma muraria	+	--	--	--	+	--
CERTHIDAE						
Certhia familiaris	+	--	--	--	+	--
Certhia brachydactyla	+	--	--	--	+	--
ORIOLIDAE						
Oriolus oriolus	+	--	--	--	+	--
LANIIDAE						
Lanius collurio	+	--	--	--	+	--
Lanius minor	+	--	--	--	+	--
CORVIDAE						
Garrulus glandarius	--	--	--	--	--	--
Pica pica	--	--	--	--	--	--
Corvus frugilegus	--	--	--	--	--	--
Pyrrhocorax graculus	--	+	--	--	+	--
Pyrrhocorax pyrrhocorax	--	+	--	--	+	--
Corvus monedula	--	--	--	--	--	--
Corvus corone cornix	--	--	--	--	--	--
Corvus corax	--	+	--	--	+	--
STURNIDAE						
Sturnus vulgaris	--	--	--	--	+	--
PASSERIDAE						
Passer domesticus	--	--	--	--	+	--
Passer montanus	--	+	--	--	+	--
Petronia petronia	--	+	--	--	+	--
FRINGILLIDAE						
Fringilla coelebs	--	+	--	--	+	--
Serinus serinus	+	--	--	--	+	--
Serinus pusillus	+	--	--	--	+	--
Carduelis chloris	+	--	--	--	+	A. 4
Carduelis carduelis	+	--	--	--	+	A. 4
Carpodachus rubicilla	--	+	--	--	+	--
Pyrrhula pyrrhula	--	+	--	--	+	A. 3
EMBERIZIDAE						
Emberiza cia	+	--	--	--	+	--
Emberiza hortulana	--	+	--	--	+	A. 3
Emberiza buchanani	--	+	--	--	+	--
Emberiza melanocephala	+	--	--	--	+	A. 3
Total	108	31	1	--	132	75

Table 7. Mammal species from Küre Mountains area and their threat status

	Threat Status				
	International				National
	BERN		ERL (IUCN)		CHC
	App II	App III	Vu	Lr	Protection
Scientific Name					
INSECTIVORA					
ERINACEIDAE					
Erinaceus europeaus	--	+	--	--	+
SORICIDAE					
Crocudira suaveolens	--	+	--	--	--
Crocudira russula	--	+	--	--	--
TALPIDAE					
Talpa caeca			--	--	--
RODENTIA					
SCIURIDAE					
Sciurus anomalus	+	--		+	+
Spermophilus xanthophrymnus	--	--	--	--	--
CRICETIDAE					
Cricetulus migratorius	--	--		+	--
Clethrionomys glareolus	--	--	--	--	--
Microtus arvalis	--	--	--	--	--
SPALACIDAE					
Spalax leucodon					--
GLIRIDAE					
Dryomys nitedula	--	+		+	--
Glis glis	--	+		+	--
MURIDAE					
Rattus rattus	--	--	--	--	--
Rattus norvegicus	--	--	--	--	--
Apodemus mystacinus	--	--	--	--	--
Apodemus sylvaticus	--	--	--	--	--
Apodemus flavicollis	--	--	--	--	--
Mus musculus	--	--	--	--	--
Allactaga euphratica	--	--		+	--
CARNIVORA					
CANIDAE					
Canis lupus	+	--	--	--	--
Canis aureus	--	--	--	--	--
Vulpes vulpes	--	--	--	--	--
MUSTELIDAE					
Mustela nivalis	--	--	--	--	
Mustela erminea	--	--	--	--	+
Martes martes	--	--	--	--	--
Lutra lutra	+	--	+		+
Meles meles	--	--	--	--	+
URSIDAE					
Ursus arctos	+	--	--	--	+
ARTIODACTYLA					
SUIDAE					
Sus scrofa scrofa	--	--	--	--	--
CERVIDAE					
Cervus elaphus	--	--	--	--	
Capreolus c. capreolus	+	--	--	--	+
CAPRINAE					
Capra aegagrus	+	--	+		+
Total	6	5	2	5	8

ANNEX 3. SOCIO-ECONOMIC SITUATION IN PROJECT AREA AND STAKEHOLDER PARTICIPATION PLAN

This document summarizes the findings of a preliminary survey carried out by a multidisciplinary team of experts in the Kure Mountains surrounding landscape. The objectives of the survey were to: (i) gather information relating to the socio-cultural and economic structure dominant in the national park area and zones that surround it; (ii) analyze the relationship between socio-economic life and biological diversity and natural resources in the area; (iii) analyze existing framework and practices pertaining to the relationship between socio-cultural and economic development and nature protection; (iv) identify and analyze strong and weak points in terms of ensuring harmony between socio-cultural and economic structure and nature protection; (v) develop participatory mechanisms to ensure local people's participation in biodiversity conservation and management; (vi) to develop a "strategy" for the modifying the current unsustainable practices in line with the views and suggestions of local communities, village headmen, local governments (municipalities, district governorships, etc.) and civil society organizations.

The preliminary survey covered 12 rural settlements existing in the national park area and locations surrounding this area. Based on geographical features, present development initiatives launched by national park management, production patterns and population composition, the settlements were grouped in four sub-regions.

Table 1: Districts and villages covered by the preliminary survey

Province	Region	District/Town	Villages
Kastamonu	I	Pınarbaşı	Muratbaşı, Sümenler
		Azdavay	Kayabaşı, Karakuşlu
	II	Şenpazar	Celalli
		Cide	Yayla, Hamitli, Başköy
Bartın	III	Kurucaşile	Başköy,
		Amasra	
	IV	Central District	Şahin
		Ulus	Karahasan, Aşağıçerçi

The survey employed: (i) compilation of documents, before launching the fieldwork, relating to the National Park and its surroundings and conduct of interviews with resource persons; (ii) Rapid rural assessment at village level with the participation of local people; and (iii) interviews and talks with district governors, mayors, forest conservancy directors, gendarme and local people. Evaluation work was conducted at two levels: district and village. This was necessary since the absence of preliminary data at village level made it impossible to come up with a sample fully representative of the region.

Socio – economic context

The total population of administrative districts in the National Park area is approx. 221,000, of which 30 % lives in the province and district centers while the remaining 70 % are in rural settlements. This reflects the reverse of what is true for the country as a whole since urban population in Turkey constitutes 65 % of the total (35 % in rural settlements. The table below gives changes taking place in the urban and rural population of 8 districts covered by the survey for the period 1990-2000.

Table 2: Population of districts covered by the survey[21]

Provinces	Sub-Region	Districts	1990 Census of Population			2000 Census of Population		
			Total	Urban	Rural	Total	Urban	Rural
Kastamonu	I	Pınarbaşı	8.777	1.555	7.222	5.881	2.262	3.619

[21] Web site of Kastamonu Governorship:www.kastamonu.gov.tr, information files provided by district governorships. Erdoğan Atmış (1998); Bartın'da Ormancılık ve Toplumun Beklentilerinin Karşılanma Düzeyi (unpublished doctoral dissertation on forestry activities and local people's expectations in Bartın), İstanbul. Bartın Provincial Directorate of Industry and Commerce, Report on the State of Industry and Commerce, Bartın.

		Azdavay	13.833	3.893	9.940	9.010	3.496	5.514
	II	Cide	29.355	5.128	24.227	23.055	5.795	17.260
		Şenpazar	8.950	2.887	6.063	6.492	2.678	3.814
Bartın	III	Kurucaşile	11.435	2.034	9.401	8.742	2.074	6.668
		Amasra	19.857	6.510	13.347	15.965	6.235	9.730
	IV	Center	133.942	30.142	103.800	131.965	36.274	95.691
		Ulus	40.600	2.825	37.775	29.869	4.223	25.646
Total			266.749	54.974	211.775	230.979	63.037	167.942
%			100	20.6	79.4	100	30.0	70.0

Rural population in the districts of Pınarbaşı and Azdavay, has decreased by half within the last 10 years. The rate of decrease in rural population in this region is far higher than the national average. Present indicators point out that this decrease will go on for some time, mainly affecting the districts of Kurucaşile, Amasra and Ulus. Population of these villages in winter is about a half of their summer population. The main factor for this population fluctuation is that those who earlier migrated to urban centers return back to their original villages temporarily for 3 to 6 months after schools are closed and when they get their annual leaves to engage in local production for domestic consumption. These people mostly live in big urban centers as İstanbul, Ankara and Karabük. In the districts of Ulus and Bartın (Center), on the other hand, population movements are not from urban centers to rural settlements in summer but seasonally from villages to urban centers. These people are seasonally employed in construction works and mines near these district centers. Wintertime population in the villages of Kastamonu sub-regions mostly consists of people at age 55 and over. Children at age 15 and below from the villages of Azdavay are enrolled to Regional Boarding Schools (RBS).

Table 3: Distribution of winter-time population by age groups[22]

Province	Region	District	Village	< 15 (%)	15-55 (%)	> 55 (%)
Kastamonu	I	Pınarbaşı	Muratbaşı	0	20	80
			Sümenler	0	20	80
		Azdavay	Kayabaşı	10	40	50
			Karakuşlu	20	40	40
	II	Şenpazarı	Celalli	30	50	20
		Cide	Yayla	20	30	50
			Hamitli	25	20	55
			Başköy	15	25	60
Bartın	III	Kurucaşile	Başköy	20	45	35
	IV	Center	Şahin	40	50	10
		Ulus	Karahasan	20	60	20
			Aşağıçerçi	30	50	20

Permanent migration: Out-migration from the region has been intensive and is still continuing since local crop farming, livestock breeding and forestry activities provide only limited means of subsistence. It is estimated that 43,000 rural dwellers (26 % of total population at present) from the national park area have moved and settled somewhere else within the last 10 years. Permanent migration is more common in the districts of Pınarbaşı, Azdavay and Şenpazarı to the southeast of the national park. A closer look at the status of these districts reveals that they have relatively low shares of young people and very limited means of subsistence. Furthermore, they are located in the most mountainous parts of the region.

Table 4: Migration tendencies and jobs held by people permanently settled elsewhere[23]

Village	Major destinations	Jobs held	Number of HHs migrating within the	HHs planning to migrate

[22] Information and data obtained during meeting held with local people.
[23] Information and data obtained from local people.

			last 5 years	
Muratbaşı (Pınarbaşı)	İstanbul, Pınarbaşı	Janitor, small business	8	None
Sümenler (Pınarbaşı)	İstanbul (Kazlıçeşme, Küçükçekmece, Bostancı, Zeytinlik, Gültepe, Gülbağ)	Janitor, textiles, small business	10 (about 200 HHs from this village)	None
Kayabaşı (Azdavay)	İstanbul (salesperson in Beymen, Hürriyet newspaper), Azdavay	Salesperson, newspaper printing	27	No one will remain in the village after 5 years
Karakuşlu (Azdavay)	İstanbul	Janitor, cab driver, textiles	7	None
Celalli (Şenpazarı)	İstanbul (Ümraniye, Esenler, Kağıthane)	Janitor, industrial worker, small business	2	None
Yayla (Cide)	İstanbul (Kadıköy, Şişli) There are 392 persons living in the village while 795 others from the same village are in İstanbul	Janitor, cab driver, industrial worker	2 HHs every year	No HH left to migrate
Hamitli (Cide)	İstanbul	Janitor, cab driver, transportation work	1 HH	"gone is gone"
Başköy (Cide)	İstanbul (Kadıköy)	Janitor, plumbing	10	None
Başköy (Kurucaşile)	Any place in Istanbul	Construction works, janitor	100 (within the last 10 years)	15
Şahin (Bartın-Center)	İstanbul Gaziosmanpaşa, Halkalı	Textile plants	040	10
Karahasan (Ulus)	İstanbul (Halkalı, Söğütlüçeşme, Bostancı)	Garment, footwear and plastics industry	20	"gone is gone"
Aşağıçerçi (Ulus)	İstanbul (Beşiktaş, Esenler)	Textiles, other industrial jobs	10	None

In case a permanent job is found in urban centers, the family moves, but the house is kept for the school vacations when the wives and children come back for crop farming. Whatever they can get as surplus from this production they take it to their urban settlements for wintertime consumption. According to information provided by villagers, permanent rural-urban migration is about to come to an end in the districts of Pınarbaşı, Azdavay, Şenpazarı and Cide. This movement, however, is expected to continue in other districts since they still have some younger people to migrate. Istanbul is the main center that receives new settlers from this region.

Seasonal migration: Seasonal migration movements are observed in the districts of Kurucaşile, Bartın (Center) and Ulus where there are still younger age groups. These people mostly work in constructions and mines near the provincial centers of Zonguldak and Bartın.

Table 5: Destination, jobs and duration of employment of seasonal workers from rural areas[24]

Village	Major Destinations	Jobs held	No. of persons	Duration of employment
Başköy (Kurucaşile)	İstanbul, Amasra	Construction works Coal mining	30 27	4-5 months
Şahin (Bartın merkez)	Zonguldak, Devrek, Çaycuma	Employment in illicit coal mines	100	Sept. – May
Karahasan (Ulus)	Provinces and districts in the	Construction works	30	4-5 months

[24] Information and data obtained from local people.

	region			
Aşağıçerçi (Ulus)	Vicinity of Bartın and Zonguldak	Marble processing and other construction works	30	4-5 months

Education: The male rates of literacy are in the interval 70 to 90 %. Female literacy is lower. The rates of literacy in individual villages are consistent with the years in which primary schools were first opened. Young students from villages where their number is low, are enrolled to the Regional Boarding Schools (RBS) based in district centers. There are some who go to school in Istanbul while living there with their close relatives. There are very few students enrolled to higher education institutions. Insufficient physical infrastructure and teaching staff are the main obstacles to access to and retention of schooling. Primary schools had first been opened in this region about 30-50 years ago. However, because of intensive permanent migration, all village schools in survey villages attached to Kastamonu province are now closed. School-age children in these villages are enrolled to the RBSs at district centers. School buildings remain idle and not used for any other purpose. An exception is the school in Sümenler, which was allocated by the Governorship for the use of a local wildlife guide and visitors who need boarding. Local authorities as well as people think that other schools in the area may also be used for the same purpose. Furthermore, the National Park Directorate has plans to convert now inactive school buildings as venues of interest for tourists.

Health: Health facilities are almost non-existent in villages. There are state hospitals (with bed capacity of 15-20) and health centers at district centers. Health services are provided firstly at district level and then by facilities at provincial centers. Should these facilities prove insufficient, İstanbul is the next step. Demand for health services is high especially in those villages where considerable part of people is covered by an insurance scheme.

Transportation, electricity and communication: Roads that connect villages to district centers are open throughout the year with the exception of short-time blocks when it snows heavily. Working machines of the Village Services operate when such block occur. Since some roads are rather primitive, there may be problems especially in winter. There are also difficulties in transportation in areas prone to landslides (i.e. Yayla village in Cide). All rural settlements have their connections to electricity network. There are occasional cut offs, however, especially in heavy winter conditions. With the exception of Kayabaşı village (Azdavay district) all villages have telephone connections.

Drinking water: There is no shortage of drinking and use water in winter. In summer, however, water supply may fall short of needs due to population increase deriving from the arrival of people living in other places. No village covered by the survey has any sewage system. There are only septic tanks used for this purpose. In some cases, wastes are disposed of by spreading them over a larger area. At district centers, on the other hand, although there are sewage systems, waste is discharged to nearest streams, since there are no treatment plants.

Housing and communal facilities: Normal dwellings are mostly two-story wooden buildings. Their bases consist of stonewalls and upper fillings of brick and wood. Newer houses, however, are of brick and cement. The size of the house varies with respect to household population and level of wealth. Village coffee houses as places where people meet are observed mostly in those settlements where there are young people. No coffee house was observed in the villages of Pınarbaşı, Azdavay ve Şenpazarı.

Relations with Governmental organizations: When asked about their contacts and relationship with governmental organizations, local people state that their most frequent contact is with forest guards and staff of the Forest Service, followed by Gendarme (the rural security) and the Agriculture Service. They add that health workers also visit their villages for periodic child immunization campaigns. According to statements made by local people, forest guards drop by their villages mostly for such purposes as determining building and/or firewood needs of households, investigate on information relating to illegal cuts and hunting practices and overall supervision. The gendarme, on the other hand, visit villages for notifying those youngsters whose military service term has come and to investigate some other issues.

Finally, agricultural training and routine animal inoculations are the occasions when people from Agricultural Directorate visit these villages.

Social Security: Many people are covered by social security systems and this coverage constitutes an important source of income even beyond farming activities in some cases. Assuming that each household has one retired member, about 40 % of all households are covered by the Social Insurance Institution (SSK). Many of these people gained their retirement rights and benefits for their employment in large urban centers or in coalmines in the region. The proportion of people in the region covered by social security schemes is above the national average. This rather large social security coverage points out that the leading means of subsistence for these people are out of farming and forestry and it can be considered as a positive fact for the future of the national park.

Economic activities:

Land-use patterns: District-level data were obtained from the briefing files of District Governorships. Local people made various statements regarding present patterns of land use. These include the shrinking of farmlands as a result of soil degradation and out-migration accompanied by some improvements in ranges and spaces within forests upon the disappearance of small head animal (sheep, goat, etc) husbandry.

Table 6: Land use at district level [25]

Province	Region	District	Farming Land (ha)	Forested Area (ha)	Pasture-Range (ha)	Other (ha)	Total (ha)	% Distribution
Kastamonu	I	Pınarbaşı	10139	35054	0,125	9533	54726,125	31.0
		Azdavay	-	-	-	-	-	-
	II	Şenpazarı	5010	19038	0	1002	25050	14.2
		Cide	12540	40500	9549	6013	68603	39.0
Bartın	III	Kurucaşile[26]	2463	9546	2511	1470	15900	9.0
		Amasra	4167	5681	0	1457	11323	6.4
	IV	Central District	-	-	-	-	-	-
		Ulus	-	-	-	-	-	-
Total			34319	109819	12060,125	19475	175602,125	100
% Distribution			19.5	62.5	6.8	11.0	100	

Note: No data could be obtained on land use patterns in Azdavay (Kastamonu), Bartın (center) and Ulus.

Taking a general look at land use patterns in districts surrounding the national park area, we see that forested areas are 3 to 4 times as large as culture lands. What people consider as "ranges" exist mostly in Cide district. Furthermore, large size of now idle lands existing in Pınarbaşı and Cide point out that these lands were once cultivated. These two districts also cover karst formations and rocks extending over rather large areas. Large part of ranges and pastures are open spaces within standing forests. Sorkun Plateau is at the crossing point of the district boundaries of Cide, Ulus and Pınarbaşı.

Crop farming in the area consists of cereals, fruit and vegetable culture. Since in no village it brings in cash income, crop farming can safely be considered as a basic activity for household consumption. Households coming back to their villages in summer are engaged in crop farming, take their surplus back to cities and thus save from their urban consumption expenditures. Crop farming does not display any expansion in terms of gaining new farmland. Quite to the contrary, farmlands abandoned as a result of out-migration are covered by vegetation and used as grazing land. It is also stated that some old farmlands near forests are developing as forests. In cereals culture, the basic motive is to provide feed for animals.

Table 7: Crop Farming by Districts (cereals, fruit and vegetable culture)[27]

[25] Year 2002 briefing files of Agriculture Directorates.
[26] Excerpted from the booklet "Kurucaşile from Past to Present", 1999.

Crops	Pınarbaşı	Şenpazarı	Cide	Kurucaşile
Wheat	31000 da	5500 da.	12000 da.	4000 da.
Barley	4000 da	900 da.	150 da.	0
Corn	70 da.	1950 da.	8000 da.	8000 da.
Rye		200 da.	1000 da.	
Oats		50 da.		
Chickpea	333 da	0		
Dry bean		30 da.		
Vetch	1354 da.	60 da.		1000 da.
Potato	150 da.	100 da.		750 da.
Clover	50 da.	150	150 da.	
Sanfoin	70 da.	80	300 da.	
Vegetable	384 da.	296 da.	4925 da.	490 da.
Greenhouse culture	24400 m2		170 da.	145 da.
Apple	7000 (standing trees)	3500 (standing trees)	20000	3000
Pear	6050 (standing trees)	1930 (standing trees)	4450	8000
Quince	1550 (standing trees)	550 (standing trees)		1200
Plum	8000 (standing trees)	2160 (standing trees)		2500
Cherry	2800 (standing trees)	3000 (standing trees)	4000	3000
Walnut	850 (standing trees)	4444 (standing trees)	5000	5000
Medlar		40 (standing trees)		
Mulberry	580 (standing trees)	270 (standing trees)		1700
Cornel		1000 (standing trees)		1500
Peach		50 (standing trees)		850
Sour cherry		66 (standing trees)		400
Chestnut		4570 (standing trees)	53000	
Hazelnut		4000 standing trees	37500 standing trees	
Grapes		45 decares		
Trabzon date				200
Kiwi fruit				150
Vegetables: Black cabbage, lettuce, broad bean, bean, tomato, cucumber, onion, pumpkin, green pepper.				
Note: Data related to Azdavay, Bartın-Center and Ulus districts could not be obtained. .				

Livestock: On average, each household had 2 – 3 animals. Animal stock in the region mostly consists of cattle. The genetic composition of these animals is: Domestic breed (90 percent) and crossbred and culture (10 percent). Milk yield of domestic bred animals is, on average, 3-4 liters a day. Milk cow farming is more developed in those villages where young and active people still remain. Milk is mostly used for household consumption and newborn animals are sold out in the market. In winter, animals are fed with intensive feed, dry hay and roughage produced by farmers themselves. In summer, animals are left for free grazing in forests. However, small head animal husbandry is about to disappear, which will bring positive impacts on forests and ranges.

Table 8: Animal stock in districts (year 2002)[28]

Province	Region	District	Cattle	Buffalo	Sheep	Goat	Horse,	Poultry

[27] Year 2002 briefing files of Agriculture Directorates..
[28] Year 2002 briefing files of Agriculture Directorates.

			Domes.	X-bred	Culture				Donkey, Mule	
Kastamonu	I	Pınarbaşı	6276	634	86	125	1028	188	92	
		Azdavay	-	-	-	-	-	-	-	-
	II	Şenpazarı	3305	220	155	147	567	354	650	5300
		Cide	11885				1724		1955	14500
Bartın	III	Kurucaşile[29]	-	-	-	-	-	-	-	-
		Amasra	3100	975	75	110	85	212	960	11230
	IV	Center	-	-	-	-	-	-	-	-
		Ulus	5468	378	214	267	1681	869	1197	20196

Note: No data was available for districts Azdavay, Bartın-Center and Kurucaşile.

Data relating to village-level animal husbandry is similar to district-level data. On average, there are 3 cows and one bull per household in villages. Buffalo breeding is more common in the villages of Cide while ox is raised in Pınarbaşı and Azdavay. Small head animal husbandry is rather limited and practiced by few households with few animals. Goat breeding has totally disappeared. Horses, donkeys and mules are observed in the villages of Bartın. Poultry animals including chicken, turkey and others exist in all villages. Farmers process their cheese and sell their cattle to traders visiting their villages. These live animal sales mostly take place within the period preceding the Sacrifice Day.

Celalli village in Şenpazar markets 300 liters of milk in 2 days. This milk is delivered to a milk plant in Şenpazarı at 225,000 TL/liter. Farmers, however, stated that they stopped delivering milk to the plant since they could not get their money for the last 4 months. People from Yayla (Cide) stated that they used to market their milk but now stopped since milk collectors could not reach their village because of bad roads. In Başkoy (Kurucaşile) 100 liters of milk is delivered to collectors coming from Bartın. There are 3-4 households selling milk Şahin village (Bartın). The village of Karahasan delivers milk to plants operating in Bartın and Ulus. These farmers supplying 1 ton of milk a day get 290,000 TL per liter of milk. 15 households in Aşağıçerçi regularly market 500 liters of milk a day. The milk of this village also goes to plants in Bartın and Ulus.

Forestry: In Turkey, all forests are under the proprietorship of the State and managed by it on behalf of the nation. According to relevant legislation, social (ecologic, economic and community related) functions of forests bear importance. Rural people, on the other hand, may provide for their fire and building wood needs from forests, derive income from various forestry activities and benefit from other forest products. In Turkey, there are about 10 million people living in 17,000 villages located in or near forested areas and these people constitute the "poorest" section of all rural population. This status is the result of the fact that forests and forestry activities are far from making enough contribution to the livelihood of these people. In forest villages, rather large areas have been cleared from forests as culture land. Since cadastral works have not been fully completed, there are problems of proprietorship in almost every place. The practice of clearing forested areas to gain farmland eventually disturbed the integrity of forests and ended up with artificially divided pieces of forested land. Illicit occupation of and housing in natural areas surrounding urban centers is mainly the outcome of migration from extremely poor in or near-forest villages.

All survey villages are subject to Article 31 of the Forestry Law no. 6831 (article relating to those villages located in or near productive forests and where forestry related activities have to be carried out under management plans). Accordingly, some people in these villages have normally been employed in forestry activities and they have derived some income from such employment. However, due to changes in the management plans of those villages remaining within the national park area, wood harvesting has recently been stopped and consequently this source of income has been lost.

Table 9: Villages engaged in forestry related production (year 2002)[30]

[29] Excerpted from the booklet "Kurucaşile from Past to Our Present Day", 1999.
[30] Information obtained from villagers.

Village	Forest products and derived income
Sümenler (Pınarbaşı)	Work in forest in felling years
Kayabaşı (Azdavay)	3000 m^3 of felling took place in year 2002. There is snow felling during winter and summer felling in May: Return is 18 million TL/m^3
Celalli (Şenpazarı)	There used to be felling at various levels until 2002, but no felling has yet taken place in 2002.
Yayla (Cide)	In 2002, 20 households were engaged in felling for 15 days and each household earned 300 million TL.
Başköy (Cide)	It is stated that 80 percent of households participated in felling in relevant years. 10 households took part in natural rejuvenation work.
Karahasan (Ulus)	No felling in year 2002.

In all forest villages where there are lime trees, flowers are collected for domestic consumption and sending to relatives in Istanbul. The people involved say that branches and in some cases even trees may be cut off while collecting lime flowers. It can thus be concluded that specific forms of utilization may well harm or even destroy some natural resources. Mushroom is the major undergrowth collected by rural people for fresh consumption or canned storage. Mushroom marketing is very limited. Other forest products collected by rural households include cornel and rosehip, which are consumed either as marmalade or tea.

Beekeeping is practiced in all villages surveyed, though upon rather conventional information and methods. There are very few households engaged in modern techniques of beekeeping. In fact, beekeepers themselves admit this fact and express their need for training in this field. The output is either run or combed honey. Since their surplus product is rather limited, there is no marketing problem for the time being. Honey is sold mostly to relatives and fellow townsmen living at urban centers.

Table 10: Status of village level beekeeping[31]

Village	Number of households interested in beekeeping	Number of hives	Honey yield per hive (kg/hive))	Price of honey (TL/Kg)
Muratbaşı (Pınarbaşı)	3	90	20	-
Sümenler (Pınarbaşı)	7	100	15-20	-
Kayabaşı (Azdavay)	8	600	30	-
Karakuşlu (Azdavay)	0	0	-	-
Celalli (Şenpazarı)	10	50	15-20	-
Yayla (Cide)	5	40	25-30	10 million TL for run honey and 7 million TL for combed honey
Hamitli (Cide)	2	35	20-25	-
Başköy (Cide)	4	250	20	10 million TL
Başköy (Kurucaşile)	20	150	15	-
Şahin (Bartın-Center)	3	30	-	-
Karahasan (Ulus)	0	0	-	-
Aşağıçerçi (Ulus)	1	60	10	-
Total	63	1405		

Spoon carving: In the villages of Tepecik, Aşıklı, Hamangerisi, Aşağı Dağlı, Celalli and Gürpelit (Şenpazarı district) within the national park area and its buffer zone, wooden spoon carving out of poplar, hornbeam and box-tree is an important source of income. This activity takes place "informally" at household level and formally in two workshops active in Harmangirişi. Local people in these villages state that 80 percent of households produce wooden spoons on 200 days in a year and their average daily

[31] Data obtained from meetings with villagers and from the briefing files of Agriculture Directorates.

output is about 15 spoons. These spoons are sold in bulk to wholesale traders at prices of 350-400,000 TL for each in box-tree spoons and of 150-200,000 TL in others. Assuming that the total annual spoon output of a household is around 2,500-3,000, this corresponds to 1 billion TL (600 $) as annual income from spoon making. Since 1 cubic meter of industrial wood is assumed to yield 300 spoons, it can be concluded that each household uses 10 cubic meters of wood a year for spoon carving. Further assuming that there are 1,000 households engaged in this production, total wood used for spoon production turns out to be 10,000 cubic meters a year.[32]

The most problematic issue in spoon carving is that wood is cut in an irregular manner or "illicitly", as expressed by forest guards and local people, from nearby forests. As a matter of fact, local people state that they are disturbed and uneasy about their status as illicit producers and want this problem settled in some way. They have even taken some steps for solution by organizing in an association covering the producers of Harmangerisi and other neighboring villages.

Collection and marketing of chestnut: In the villages of Kurucaşile where there are chestnut groves, local people collect chestnuts from trees and barter them with wintertime foodstuffs (flour, rice, margarine, sugar, tea, potato, etc.) brought in by itinerant traders. They say that chestnut yield depends on climate and it is low in dry years. The average amount of chestnut collected by each household is 500 kg/year and income derived is around 400-500 million TL. Chestnuts are then shipped to big traders in Ankara and İstanbul by local traders.

Starting from the early 90s, people's growing interest in nature tourism and recent publicity of Küre Mountains has increased the number of visitors to the area. Services like boarding and guiding are delivered by some local people, who may be keen on what tourism may bring in, but without any plan or systematic arrangement. There is no reliable information on the social, economic and ecologic implications of "nature walks" intensifying especially in summer. Yet, relevant parties (local authorities, local people, environmental protection groups and organizations, etc.) agree that such information will be essential in near future and there is need to approach "nature tourism" in a systematic manner.

Credit use: The practice of using credit for agricultural production is limited in survey villages. It is stated that in Kayabaşı village (Azdavay), some people receiving loans issued for animal husbandry use these funds for the repayment of some other debts. The agricultural credit cooperative in Başköy (Cide) extends credit for animal husbandry. In Başköy (Kurucaşile), there are 10 households using Agriculture Bank credits for crop farming. The ORKÖY issued credits for beekeeping and milk cow farming. The agricultural credit cooperative in Karahasan village (Ulus) gives in-kind credit for animal husbandry. It is stated that there is no problem in repayments.

Means of Subsistence and Stratification

The leading means of subsistence in villages constitute a major indicator that may be associated with the utilization of available natural resources. Thus, there was an investigation on the leading means of subsistence. Four major means were selected: Crop farming, livestock breeding, retirement pays and benefits, and non-agricultural sources of income. Table 16 below gives information on village-level income sources and their relative status.

Table 11: Basic means of subsistence by villages and relative status[33]

Villages	Basic means of subsistence			
	Crop farming	Stock breeding and animal products	Retire-ment pension	Non-agricultural sources of income
Muratbaşı (Pınarbaşı)		2	1	
Sümenler (Pınarbaşı)	2	3	1	

[32] Data obtained from local people and forest engineers.
[33] Data obtained from villagers.

Kayabaşı (Azdavay)		3	1	2 (beekeeping)
Karakuşlu (Azdavay)	3	2	1	
Celalli (Şenpazarı)	2		3	1 (wooden spoon production)
Yayla (Cide)	2	1	3	
Hamitli (Cide)		1	2	3 (design of wooden spoon)
Başköy (Cide)	2	1		3 (forestry works)
Başköy (Kurucaşile)			2	1 (chestnut sale) 3 (work in quartz mine)
Şahin (Bartın-Center)		2		1 (mining work)
Karahasan (Ulus)	3	1	2	
Aşağıçerçi (Ulus)		1	3	2 seasonal works

In the villages of Pınarbaşı and Azdavay, retirement pensions constitute the primary source of income. Data relating to social security status also confirm this conclusion. This outcome may be regarded as normal since the population of these villages is declining and what remains in villages is mostly elderly people.In the villages of Cide and Ulus, on the other hand, livestock breeding comes to the fore as primary source of income. Basic indicators in this context include live animal sales in the villages of Cide and milk sales in those of Ulus. Wooden spoon production has its specific importance as a source of income in the villages of Şenpazarı.

During interviews conducted in villages, local people were asked the number of what they considered as "poor", "medium" and "wealthy" households under given conditions and some other questions were forwarded to find out about the "subsistence threshold" of a household of 4 members. Under given conditions, villagers consider "regular income", "retirement" and "property holding" as indicators of wealth. Another indicator is animal stock. The basic indicator of poorness is "to be dependent on somebody else." Households remaining in-between these two are considered as "medium-level." Table 17 below shows stratification with respect to income and minimum subsistence thresholds.

Table 12: Stratification and minimum subsistence income in villages [34]

Villages	Stratification (number of wintertime households)				Minimum subsistence income TL/month)
	Poor	Middle	Better off	Total number of HHs (winter)	
Muratbaşı (Pınarbaşı)	5	20	5	30	500
Sümenler (Pınarbaşı)	2			55	500
Kayabaşı (Azdavay)				15	
Karakuşlu (Azdavay)				30	250
Celalli (Şenpazarı)	12	52	16	80	400
Yayla (Cide)	6	46	4	56	250-300
Hamitli (Cide)	2	14	2	18	250
Başköy (Cide)	10	30	4	44	400
Başköy (Kurucaşile)	20	127	10	157	500
Şahin (Bartın-Center)	10	55	5	60	500
Karahasan (Ulus)	15	40	30	85	400
Aşağıçerçi (Ulus)	10	45	2	?	500

Income level differentials within and between villages point out that what is considered "medium-level" is the dominant stratum. Depending on specific village conditions, total monthly income required for average livelihood varies from 250 to 500 million TL.

Key Stakeholders

The main stakeholders involved in the project sites are identified in the matrix below. During the project preparation stage, a stakeholder analysis was undertaken in order to: (i) identify key stakeholders; (ii) review stakeholder interests and associated impacts on resource use, land tenure and the project; (iii)

[34] Data obtained from villagers.

identify and mitigate possible negative socio-economic impacts on local stakeholders resulting from the project; and (iv) identify and develop opportunities for the project to benefit stakeholders.

Table 13. Key stakeholders and their roles and responsibilities in the project

Stakeholder	Roles and Responsibilities in the project
Ministry of Environment and Forestry (MoEF)- Research Planning and Coordination Board (RPCB) and Foreign Relations Department (FRD)	The MoEF will be responsible for the overall coordination of the project through its FRD while the RPCB will be represented in the Steering Committee. The MoEF is also expected to take necessary action recommended by the project.
General Directorate of Forestry (GDF) and its local units	GDF will be a member of the Steering Committee and will be responsible for implementing project activities in the buffer zone around the Park through its local units. GDF will also contribute to the project by co-funding certain project activities as indicated in the project document through its local units. The local units of GDF will be one of the main parties of all local committees.
General Directorate of Nature Conservation and National Parks (GDNCNP) and its local units	GDNCNP is one of the main partners of the project and will be responsible for implementing project activities in the Park through its local units. GDNCNP will also be a member of the Steering Committee and contribute to the project by co-funding certain project activities as indicated in the project document through its local units. The local units of GDNCNP will be one of the important parties of all local committees.
General Directorate of Forest-Village Relations (GDFVR) and its local units	GDFVR will be a member of the Steering Committee. It will also contribute to the project in sustainable/alternative livelihood through its local units and take part in local committees especially the Socio-Economic Development Committee.
General Directorate of Afforestation and Erosion Control (GDAEC) and its local units	GDAEC will be a member of the Steering Committee. It will also contribute to the project especially in ecosystem restoration through its local units and take part in relevant local committees.
General Directorate of Environmental Impact Assessment and Planning (GDEIAP)	GDEIAP will make sure that the Terrestrial Plans of the region will be completed.
Provincial Directorates of Environment and Forestry	Provincial Directorates of Environment and Forestry will be involved in especially water and waste issues and help resolve water and waste related issues.
WWF-TR	Partner of the project as a national NGO. Will be a member of the Steering Committee and implement some project activities regarding Resource Management and Protection, Socio-Economic Development, Interpretation & Education as well as Research & Monitoring as defined. WWF-TR will also be represented in all the local committees.
Provincial Agriculture Directorates	The local units of Agriculture Directorates which are based in districts falling in the project area are expected to contribute to sustainable rural development around the Park and will be represented in local Socio-Economic Development Committee.
Provincial Education Directorates	The local Education Directorates which are based in districts falling in the project area are expected to contribute to interpretation and education activities and will be represented in relevant local Committees.
Culture and Tourism Directorates	The local Culture and Tourism Directorates which are based in districts falling in the project area are expected to be involved in interpretation and education activities and will be represented in relevant local Committees.
Universities	The universities based in Kastamonu and Bartin will be represented in the local Committees of Research & Monitoring as well as Interpretation & Education and involved in relevant activities.
Research Institutes	Relevant regional research institutes will be represented in the local Committees of Research & Monitoring as well as and involved in relevant activities.
Governorships	Governorships of Kastamonu and Bartin, and the districts around the project area will be represented in all local committees and involved in relevant project activities.
Municipalities	Municipalities of the districts around the project area will be represented in the local committees and involved in relevant project activities.
Rural Security	The rural security units (Gendarme) in the districts around the project area will be represented especially in the local committee of Resource Protection and their cooperation will be sought

Stakeholder	Roles and Responsibilities in the project
	especially in resource protection activities.
Local press and media	Local press and media will be invited to take part in the Interpretation & Education Committee. The project will cooperate with local press and media on interpretation and education related issues.
Local NGOs	Local NGOs based in the project area will be invited to all local committees and they will be encouraged to take active role in implementing project activities.
Representatives of local communities (villages)	Inhabitants of the villages within the project area will be made aware of the issues and invited to take part in the decision making process. They will be represented in the local committees by village headmen and actively involved in the project activities. Their cooperation will be sought in implementing project activities including resource protection, alternative income development (ecotourism, organic agriculture), awareness raising, etc. The village headmen will be the main counterparts in linking the project objectives and activities to the needs of the people in the project area.
Local Agenda 21	The ongoing LA 21 processes in the region brings together all local actors (governorates, municipalities, NGOs etc.) and will serve as a platform for reaching out to a wider range of stakeholders in the province for dissemination and sharing of information and promoting participation of local communities. The project will pay particular attention to cooperate with Local Agenda 21 initiatives in order to strengthen its capacity.
Forest Cooperatives	Forest Cooperatives are the organizations of forest labour, who are also members of local communities. They will be one of the key partners of the project and will be involved in project activities including, sustainable development and resource protection, awareness raising, etc.
Local Chambers of Commerce and Industry	The project will also encourage local business sector to contribute to the project objectives. They will be represented in local Socio-Economic Development Committee.
UNDP-Turkey	The roles and responsibilities of UNDP-Turkey will include; Ensuring professional and timely implementation of the activities and delivery of the reports and other outputs identified in the project document. Coordination and supervision of the activities Assisting and supporting the GDF for organizing coordinating and where necessary hosting all project meetings Contracting of and contract administration for qualified project team members Manage and be responsible of all financial administration to realize the targets envisioned in consultation with GDF. Establishing an effective networking between project stakeholders, specialized international organizations and the donor community

National Government

The Ministry of Environment and Forestry has the following mission: (i) protection and improvement of the environment; (ii) use of land and natural resources; (iii) protection and development of flora, fauna and natural wealth of the country; (iv) prevention of environmental pollution; (v) conservation and development forests and expansion of forest areas; (vi) development of forest villagers living in and around forests; and (viii) meeting the demand for forest products and development of forest products industry.

The Ministry implements its mission through the following General Directorates:

- General Directorate of Environmental Management
- General Directorate of Environmental Impact assessment and Planning
- General Directorate of Afforestation and Erosion Control
- General Directorate of Forest-Village Relations
- General Directorate of Nature Conservation and National Parks
- General Directorate of Forests
- General Directorate of State Meteorology Affairs
- Presidency of Specially Protected Areas

General Directorate of Nature Conservation and National Parks (GDNCNP) is responsible for the selection, designation, planning, conservation, and management of the national parks, nature parks, natural monuments, and nature reserve areas under the provisions of the National Parks Law No. 2863. The GDNCNP manages each protected area under the rules of its "long term development plan" (management plan) through a network of Park Directorates. The Directorate is also responsible for the conservation of game and wildlife species within their natural habitats by making necessary decisions on hunting control throughout the country.

General Directorate of Forestry (GDF): In Turkey, almost all forests (99%) are under State ownership and managed by it on behalf of the nation according to the Forest Law No. 6831. Turkey's forests are expected to meet the collective/communal needs of Turkish society, e.g., by supporting ecological functions such as providing water, purifying air, protecting soil, etc., while also providing economic benefits and employment for the communities. According to the Law on the Structure and Responsibilities of GDF (No. 3234), the GDF is responsible of maintaining biodiversity, productivity, regeneration capacity, vitality and potential of forests and forest lands to fulfill relevant ecological, economical and social functions and to support other ecosystems. Recently, considerable efforts have been made to develop and implement sustainable forest management with special attention to forest protected areas (FPAs) in the country. Thus, state forests that are critical mainly for water and soil protection are declared as "Protective Forests" by a ministerial decree. No intervention is allowed in the Protective Forest areas except measures against serious pests and diseases. Furthermore, managed forests that may be vulnerable to regeneration or harvesting activities are identified as "stands with protective characteristics" to ban or strictly limit most of the forestry activities.

The forest areas around the KMNP (buffer zone) are managed by GDF. GDF is responsible for the preparation of forest management plans and their implementation, including silvicultural activities, protection and maintenance of forests, production and marketing of timber and non-timber forest products, establishing the forest boundaries, etc.

General Directorate of Nature Conservation and National Parks (GDNCNP) and General Directorate of Forestry (GDF) have the primary responsibility for activities taking place within and around the KMNP. Project activities around the KMNP will be coordinated with GDF, while GDNCNP will be responsible for the Park.

The General Directorate of Forest – Village Affairs (ORKÖY) is part of the MoEF. Articles 13, 34, 37 and 40 of the Forestry Law no. 6831 as well as its Annex Article no. 3 and the Law no. 2924 on "Supporting the Development of Forest Villages" lay down the basis of measures to be adopted to arrange relations between forests, forestry managements and people living in forest villages. Under these arrangements, the ORKÖY provides credit to forestry related development activities through its peripherally units. This line of credit includes loans given for beekeeping, milk production and fattening of cattle and small-headed animals. Interest rates in ORKÖY credits are lower than those applying to loans given by banks and credit cooperatives and the repayment of loans depends upon the particular line of activity. As far as survey villages are concerned, ORKÖY credits may be useful and functional in such activities as beekeeping, fruit culture

Local Government:

In Turkey, the system of local government has three levels as provincial private administration, municipality and village affairs. Despite some amendments made in the course of time, legislative frameworks relevant for these three levels consist, respectively, of laws dated 1913, 1930 and 1924*. Upon an amendment on law no. 3360 taking effect in 1987, it was made compulsory to extend services relating to respective levels by the central units of each level. Nevertheless, in spite of these limitations, these three levels may still extend services to rural areas through joint programs implemented in cooperation with village service units. [35]Various support schemes developed by the Private

[35] State Planning Organization (2001); Report by the Special Commission on Rural Development, p. 28, Ankara.

Administration may be considered within the framework of a "management plan" to be developed for the National Park.

Village Service Units: Funds transferred to villages originate from the general budget, budgets of private administrations, individual village budgets and voluntary donations. Under Article 127 of the Constitution, local governments may form "unions" among themselves for the delivery of public services upon the permission of the Council of Ministers. Also, Article 56 of the Provincial Administration Law no. 5442, Articles 133-148 of the Municipalities Law no. 1580, Articles 47 and 48 of the Village Law no. 442 and the related Article of the Constitution also allow for the establishment of VSUs. Each VSU is headed by District Governor. These VSUs need financial resources, office spaces, machinery etc. to deliver services. These resources are partly secured through various district-level enterprises and allowances from such local activities as milk collection, etc.

In addition to funds mentioned above, there are also funds released by provincial private administrations. In cases where there is overlapping of services specified in the regulations of the VSU with those of private administrations, the funds of the latter are used by the former in case this proves more cost-efficient and quicker. The private administration and the VSU in Kastamonu have been engaged in various development projects in this framework. For example, the "Central Village Project" was a successful one jointly implemented by the Private Administration and VSU.

These foundations are established upon the Law no. 3229 on Encouraging Social Assistance and Solidarity. Article 7 of this law envisages the establishment of a SASF in each province and district center. Local character and organization of these foundations create an advantage in activities and services targeting rural areas. SASFs are headed by provincial governors at provincial centers and by District Governors in districts. Presence of three members elected by and from local people is another factor strengthening their local character. These foundations are engaged in development and humanitarian aid activities.[36] Local foundations in the national park area have so far supported beekeeping, greenhouse farming, silage preparation, fodder crop and fruit culture activities.

Agricultural Development Cooperatives: These are multi-purpose cooperatives engaged in diverse fields. Under the law no. 1163 on Cooperatives and the amendment law no. 3476, these organizations are established to process the crops of farmers or to provide for their input, etc. needs. Basic features of development cooperatives include their openness to State-citizen cooperation, multi-purpose orientation and incorporation of such arrangements as those relating to credit extension, marketing, procurement, processing, etc. All cooperatives existing in settlements within and around the national park are of this type in terms of their legal status.[37] Yet, in actual practice, the main area of engagement of these cooperatives is limited to performing functions related to forestry under the given management plans. Members earn money from this performance. At present there is no other line of activity for local cooperatives. This state points out that the relations of local people with the market are rather limited and what they do is mostly for household consumption.

Voluntary Development Organizations: There are three such associations in the area:

- Küre Mountains National Park Eco-Tourism Association: This is a newly established organization (in 2003) not active yet;
- Ulus-Aşağıçerçi Development and Assistance Association: established 4 years ago, association in engaged in activities to improve village facilities and create social environments for youth. Among the future plans of the organizations, there is a project to start fruit culture on slopes based on small irrigation schemes.
- A new association was established to gain legal status for wooden spoon works in Harmangerisi and nearby villages.

[36] State Planning Organization (2001); Report by the Special Commission on Rural Development, p. 52, Ankara.

[37] ibid. p.40

There are many civil society organizations in the big cities as Ankara and Istanbul established by people from this region. One of them is *Kastamonu Development, Health, Environment, Training and Tourism Foundation (KASÇETVAK).* Although no definite information exists as to the number of these organizations and their membership, it is clear that their basic aim is to contribute to the development of their home villages and districts. These voluntary organizations fund their activities through donations and membership fees. Their capacities and means, however, are quite limited when it comes to fund creation, project development and implementation.

International Development Organizations in Turkey: In Turkey there are various international organizations envisaging the participation of people to development efforts and supporting small-scale projects targeting the sustainable utilization of natural resources:

- Representation of the EU in Turkey; Program for Supporting Civil Society Organizations
- UNDP, Global Environmental Facility (GEF), Small Grants Program (SGF) (www.undp.org.tr)
- Small Grants Program of the Embassy of Great Britain (www.britishembassy.org.tr)
- World Bank Representation to Turkey, Small Grants Program (www.worldbank.org.tr)
- Embassy of the Netherlands (Ankara)
- Embassy of Canada (Ankara)
- German Assistance and Technical Cooperation (GTZ), Ankara
- Japanese Development and Cooperation Organization (JICA)
- FAO Representation to Turkey.

Participation mechanisms

The stakeholder participation plan have been developed based on the following principles:

Table 14. Stakeholder participation principles

Principle	Stakeholder participation will:
Value Adding	be an essential means of adding value to the project
Inclusivity	include all relevant stakeholders
Accessibility and Access	be accessible and promote access to the process
Transparency	be based on transparency and fair access to information; main provisions of the project's plans and results will be published in local mass-media
Fairness	ensure that all stakeholders are treated in a fair and unbiased way
Accountability	be based on a commitment to accountability by all stakeholders
Constructive	Seek to manage conflict and promote the public interest
Redressing	Seek to redress inequity and injustice
Capacitating	Seek to develop the capacity of all stakeholders
Needs Based	be based on the needs of all stakeholders
Flexible	be flexibly designed and implemented
Rational and Coordinated	be rationally planned and coordinated, and not be *ad hoc*
Excellence	be subject to ongoing reflection and improvement

The project will provide the following opportunities for participation of all stakeholders, with a special emphasis on the active participation of local communities.

- Decision-making – through the establishment of the Project Steering Committee and the Location Committees. The establishment of each structure will follow a participatory and transparent process involving the confirmation of all stakeholders; conducting one-to-one consultations with all stakeholders; development of Terms of Reference and ground-rules; inception meeting to agree on the constitution, ToR and ground-rules for the committees.

- Capacity building – at systemic, institutional and individual level – is one of the key strategic interventions of the project and will target all stakeholders that have the potential to be involved in brokering, implementing and/or monitoring management agreements related to activities in and around the reserves. The project will target especially organizations operating at the community level to enable them to actively participate in developing and implementing management agreements.
- Communication - will include the participatory development of an integrated communication strategy. The communication strategy will be based on the following key principles: (i) providing information to all stakeholders; (ii) promoting dialogue between all stakeholders; (iii) promoting access to information; and (iv) promoting a consistent image of the Polesie region.

For example, training and joint implementation/evaluation are absolutely necessary to raise the level of information and awareness, as participation and capacity building are necessary for organizational development. Furthermore, in order to ensure the sustainability of organizations and participation, it is essential to guarantee that participants get increasing benefits in the course of time. One cannot speak of sustainability in organizations that fail to accord any benefit to its participants either at individual or group level. Finally, sustainability also presupposes organizational structures in harmony with given circumstances.

The most important stages or elements in ensuring participation is first of all to raise interest in the planning, implementation, monitoring, evaluation and replication of all related activities; to build and enhance awareness based on this interest and to make use of existing organizations and their outputs.

The stakeholder participation model is basically structured on the following components: 1) the steering committee, 2) project management unit, and 3) the local committees.

The project steering committee will provide overall guidance for the execution of the project activities and will include representatives of the Ministry of Environment and Forestry, the UNDP, and the WWF-TR (DHKV). In addition, the Steering Committee shall inspect and follow-up the implementation of the project and provide coordination between relevant ministries. The Steering Committee shall be led by the Ministry of Environment and Forestry and regularly meet every three months unless urgent decision-making is necessary.

The project administration and coordination between zones and relevant organizations will be carried out by a Project Management Unit (PMU) under the overall guidance of the Steering Committee. The PMU will be led by GDF. The PMU Coordinator shall be assigned by GDF and supported by an English speaking Executive Secretary, which will be hired externally for the project period. The PMU Coordinator will be responsible for the administrative and technical coordination of the project and report progress upon feed-back received from the project partners. Each project partner will be represented in the PMU.

Committee 1 will be acting as a supportive mechanism for the conservation of natural and cultural values in and around the Park, including controlling hunting, preventing pollution, etc. Joint plans, programs, and projects supporting project objectives may be prepared, implemented and monitored. The members will also be expected to offer assistance with their own capacity in order to contribute to the protection of resources. Committee 2 will deal with developing and implementing sustainable livelihoods for local communities as well as creating sustainable financial mechanisms for the Park, which may include organization of eco-tourist activities, handicraft making or bee-keeping, etc. Committee 3 will be supportive in preparing and conducting plans, programs, and projects on interpretation and education. The scope of activities include introducing the natural and cultural features of the Park inside and outside the country, raising awareness among local people and the visitors, organizing social events like festivals, and developing volunteer programs etc. Committee 4 will follow up the subjects that have to be studied concerning the Park and the surroundings, prioritize them and encourage relevant scientific organizations to include them in their schedules, conduct monitoring programmes and develop action plans on certain issues.

Although the committees seem to work separate, they should provide necessary feedback for each other's works. The coordination among the committees will be provided by the Project Steering Committee, and the members of all committees may get together at certain intervals, for instance during annual general assembly, where all the stakeholders meet regularly.

Ways to Enable Participation

A model for the management of the National Park based on the participation of local people and other stakeholders (summarized)

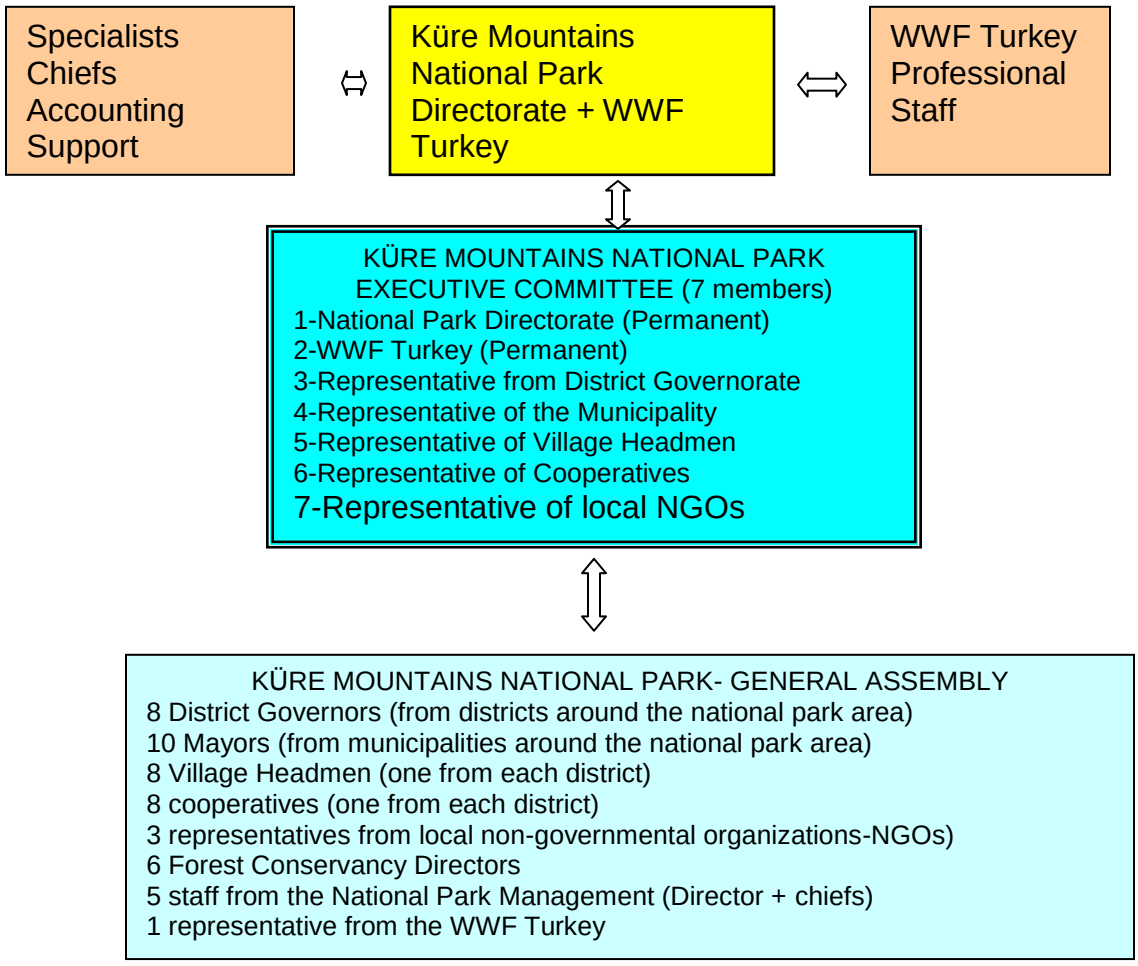
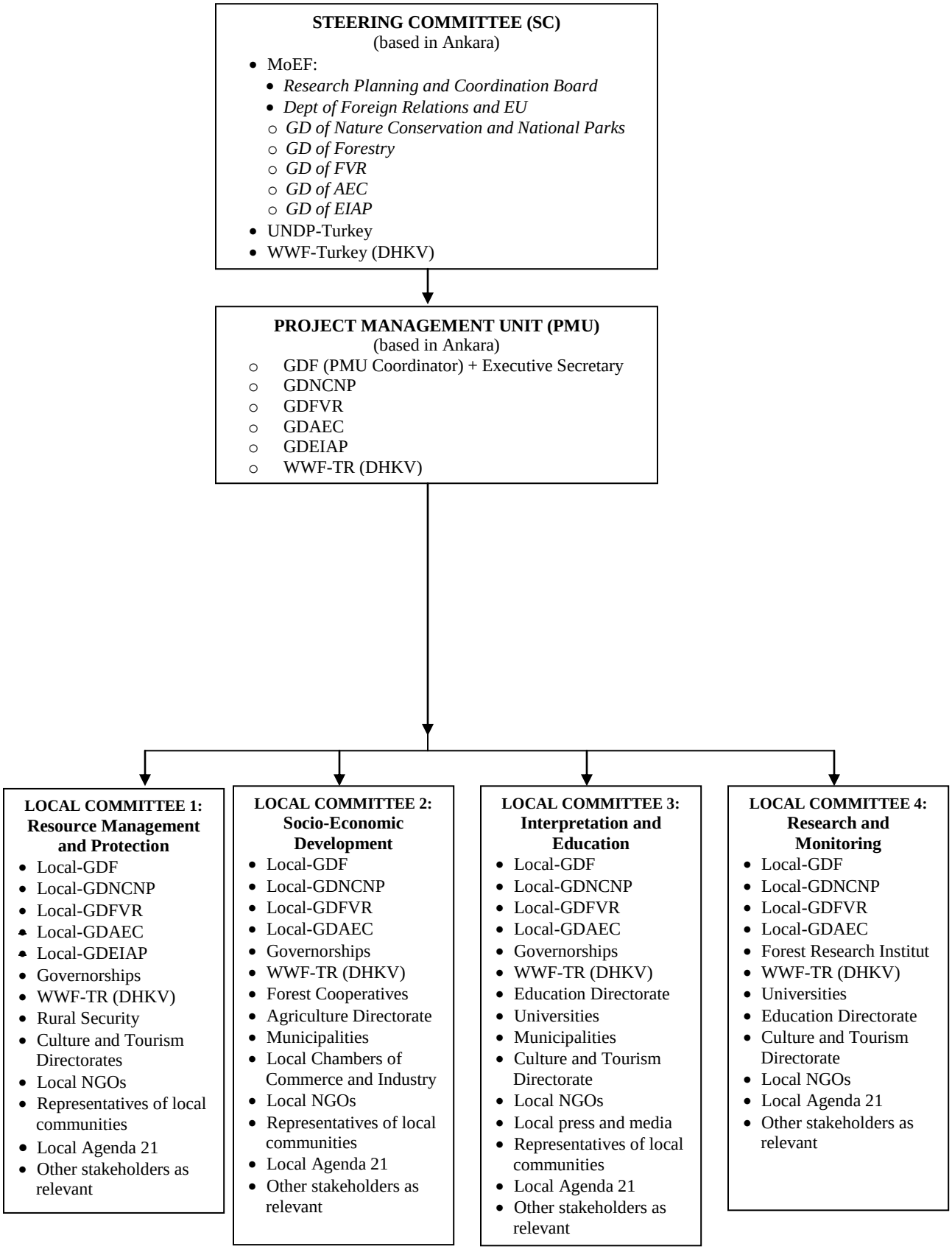


Table 1. Proposed model for collaborative management during the project period



In fact, the project period will be the time to set up the model and to initiate the operation of its components (the committees). Therefore, this structure will be one of the important outputs of the project. The committees are expected to become more effective in time, especially in the post-project period.

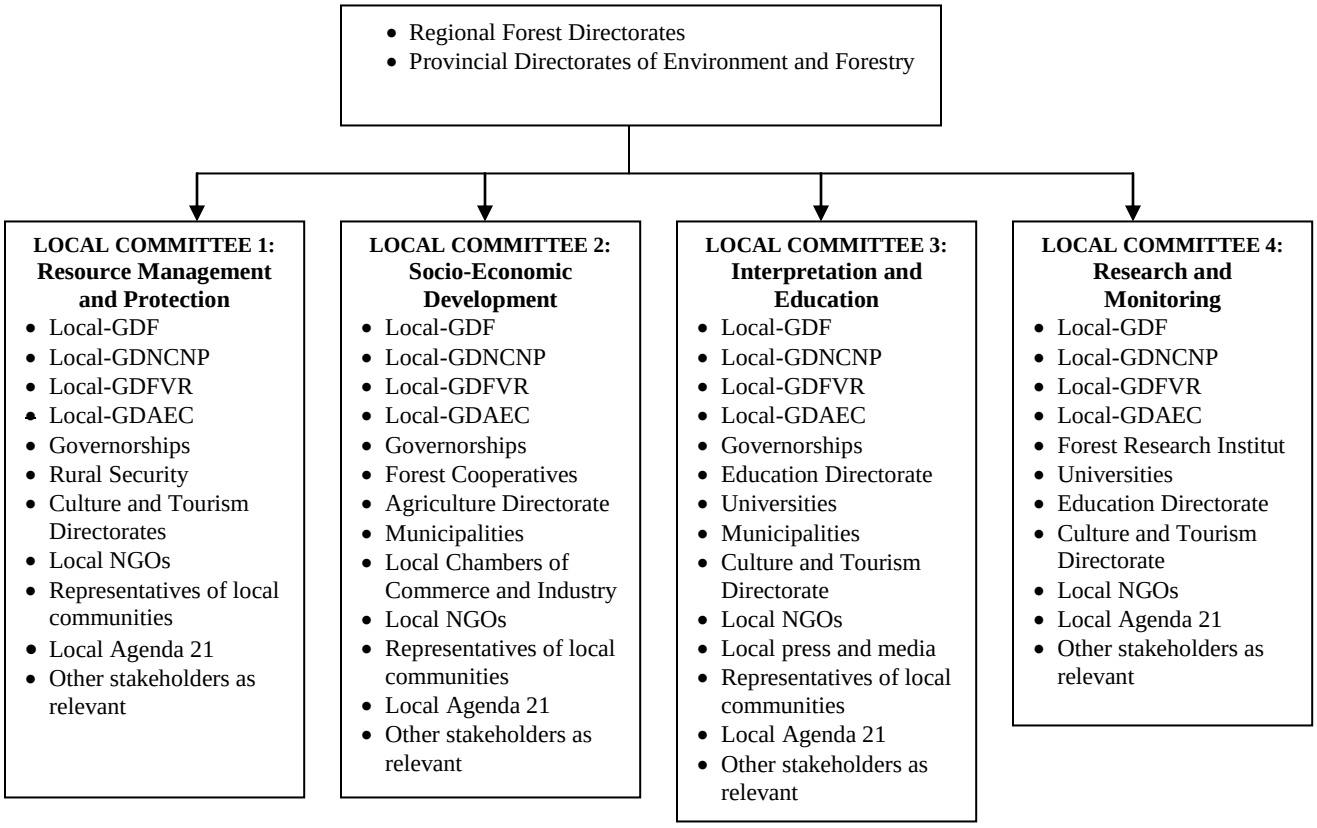
Post-Project Period

After the completion of the project, a collaborative management scheme is assumed to be established and effectively operating. In the ideal case, the steering committee and the project management unit will be terminated after the project period, in order to encourage an autonomous and localized collaborative management of the Park and the buffer zone.

Typically, the post-project management structure will consist of: 1) the local coordination committee, 2) the local committees. The differences between the two models are:

- The steering committee and the project management unit will no longer present after the project period; in case the approval of Ministries needed, their local Directorates which are represented in the committees will liaise.
- WWF-TR (DHKV) will no longer remain in the committees. It will be replaced by a local NGO, whose capacity will be enhanced during the project period, to take active responsibility in collaborative management of the area. See Table 2.

Table 2. Proposed model for collaborative management after the project period



Benefits of the proposed model

It is expected that the proposed model will contribute to better coordination and collaboration between the authorities that are responsible for conservation and sustainable development. It will be more effective in resolving management problems, and avoiding duplications in and around protected areas. The efforts of various stakeholders on education, training and public awareness could be combined for the same purpose.

More specifically, the proposed model considering the involvement of stakeholders in decision making, planning, and implementing the activities will provide the following benefits:

Since, there are more than 60 villages located surrounding the National Park, collaborative management is of vital importance for the success of management objectives. Effective planning and management would require specific information about the local people. Therefore, more information can be acquired about the local needs, problems, and capabilities.

The Park will become a common asset of all the people, governmental and non-governmental institutions around it, instead of a property of the GDNCNP only, which is the case today.

Better decision-making can be made in developing projects and plans for the park management. The decision-makers would be more realistic about what is possible, or what is not, and what suits the actual conditions best.

The local residents, local governmental and non-governmental organizations would be more enthusiastic in giving a hand to the conservation efforts, as they will feel they are part of the process. Their contributions could be in various forms, such as labor, funds or logistic materials, etc.

Once a common understanding and assent has been reached with the stakeholders, the management plan could be effectively implemented on the ground.

Effective collaboration and integration of activities and services for the conservation of the National Park's biodiversity.

The stakeholders will be consulted and invited to contribute when a new investment is planned in the Park such as roads, trails, canals, terraces, buildings, and other facilities necessary for the conservation and sustainable use of the Park's resources.

Greater political support for the Park where the facilities and services created under government auspices are those identified by local people as more valuable.

Greater means to test and integrate social and ecological objectives of the National Park through involvement and consultation of stakeholders in planning, decision making, and management.

The creation of a safeguard against poorly considered decisions and indispensable means of educating the public in the importance and problems of conservation and, in turn, policy makers, planners, and managers in the concerns of the public.

Increased public confidence and improved public understanding of the importance of the National Park and its management objectives through local participation. This will further provide additional data for planners and policy makers.

More successful conservation of biodiversity of the Park's flora and fauna through the Collaborative Management Model and involvement of stakeholders, particularly in the effectiveness of local implementation of the Central Hunting Commission's decisions.

The establishment of an authority in the Park and buffer zone, through collaborative management, to control and inspect other sector developments in the area, which may have negative effects on natural resources. This authority can also take necessary measures for preventing and/or minimizing the impacts of such developments and activities more easily.

The creation of additional financial resources (e.g.-trust funds) for better conservation and management of the Park stemming from this stakeholder involvement in collaborative management.

This collaborative management model, which will be tested for the first time in Turkey, aims to involve stakeholders in all stages of the Park management process, including planning, implementation, and monitoring. In this sense, the main objectives of the Park can be realized and the successful implementation of this model can light the way for other protected areas.

Sustenance of Socio-Cultural and Economic Life in Harmony with the Nature (SWOT Analysis- Strengths, Weaknesses, Opportunities and Threats)

Strengths	Weaknesses
- Tendency of local communities for organized behavior and to realize different activities in an organized structure; alternatives for organization: associations, cooperatives, festivals, etc. - Eagerness of local authorities (i.e. governorates, municipalities and others) to take part in the national park process (i.e. efforts of the Municipality of Pınarbaşı to find a solution to waste disposal problem, initiatives for sewage treatment plants) - Openness of local communities to cooperation in nature protection activities; efforts at individual and organized level though presently limited. Participatory and cooperative attitude adopted by relevant parties (i.e. National Park Directorate, WWF Turkey, local governments, district governorates) in relation to national park. Training of "local nature guides" in this context to contribute to conservation of the nature and generation of employment; changes in the attitude of local people as a result of this training; participation of women as well as men to ongoing processes. - Interest of such international organizations as WWF and FAO in the field. - Present position of governmental organizations adopting the idea of national park and accepting this as the "common property" of all mankind.	Inadequate capacity of local organizations: Including civil society organizations, municipalities, village management units and relevant departments of universities. Although local governments and other parties are open to cooperation especially in the field of socio-economic development, their level of information and awareness on ecological conservation is low. - Possible frustration that may ensue if high expectations from National Park status are not met. - Lack of sufficient information on the part of local people concerning the process and procedures leading to National Park. - Possible negative effects on other settlements when priority and importance is attached to specific settlements and locations in the National Park area. Possible legal, administrative and technical bottlenecks to be faced in the participatory and multi-party management of the National Park, disputes between parties and difficulty of taking decisions at local levels due to the strong presence of central administration. Bottlenecks in securing funds for sustainable development projects/activities. - Absence of a sufficient administrative and financial background on the part of National Park Directorate. - Absence of a "Management Plan" for the National Park.

Opportunities	Threats
- Resources of governmental organizations which can at least partly be channeled to "sustainable resource utilization" and sustainable development (*funds of the Private administration and Bank of Provinces, etc.)* - Good practices and resources of governmental organizations at district level including governorates, district directorates of agriculture and municipalities in the field of sustainable development (*projects commissioned to Girişim Co. by the Governorate of Ulus; Village Service Units in Kastamonu, Central Villages, etc.)* - Dedicated efforts of local people to protect and develop chestnut groves deriving from prospects of further income generation. - Existence of beekeeping as a self-sustaining and environment-friendly income generating activity and possibility of improving this activity further. - Existence of such tourism attraction centers such as Ilgaz to the east, Safranbolu to the south and Amasra, Kurucaşile and Cide to the north of the National Park area. Future support of universities around the region to initiatives in sustainable development and nature protection. Presence of too many people covered by social security, suggesting that there will not be much pressure on forests and other natural resources.	- Excessive development in tourism and tourism facilities running contrary to the principles of eco-tourism. - Adverse impacts on forests and forest habitat of presently unlicensed, unplanned and uninformed was of natural resource utilization including wood spoon carving, gathering of chestnut, mushroom, lime tree flowers, bear fat, etc. Top-to-down approaches in taking decisions on such infrastructures as roads, energy transmission lines, mines, quarries, dams, etc. which cause irrecoverable losses in forest and other natural resources (i.e. investments and initiatives dividing natural forest cover and separating forest isles from each other). Illegal hunting by people coming from other regions and engaging some local people in their work. Illicit cuts: since there are few old trees remaining in productive forests as a result of exploitation for long years, illicit cuts move to relatively well protected areas (mainly for their difficult access to) and scarcely found species (i.e. giant box-trees, chestnuts and ashes) in the National Park area. Since the region has for long time been the main source of log production in Turkey, concerns over production may overwhelm concerns on conservation.

Addendum 1

PROTECTION OF BIOLOGICAL DIVERSITY IN KÜRE MOUNTAINS NATIONAL PARK AND DEVELOPMENT OF A PARTICIPATORY PROTECTED AREA MANAGEMENT AS A MODEL FOR TURKEY

SOCIO-CULTURAL AND ECONOMIC STATE: THE FORM FOR RAPID RURAL ASSESSMENT IN PRELIMINARY SURVEY

Name of the village: _____

Date _____

Place of interview _____

Name of the village headman _____

Phone _____

DEMOGRAPHIC STRUCTURE

1. Population and sex
   a. Total population of the village: _____
   b. Male _____
   c. Female _____
2. Age composition
   a. Under 15 _____
   b. 15-50 _____
   c. Over 50 _____
3. Household data
   a. Number of households
      i. In winter _____
      ii. In summer _____
   b. Average number of household members _____
   c. Nuclear family _____
   d. Extended family _____

Population by age groups				No. of persons per household
< 15 (%)	15-55 (%)	> 55 (%)	Total	

INFRASTRUCTURE

Education

4. General level of education
   a. Male _____ %
   b. Female _____ %
   c. The year when primary school was opened _____
   d. Number of students enrolled to primary school _____
   e. If the school is closed, for how long? _____
   f. Number of students in post-primary education and where they go to school _____
   g. Number of higher education graduates and their profession _____

Health

5. There is health center in the village _____ There is health house _____
6. Staffing in health center or health house
   a. Doctor _____
   b. Nurse _____
   c. Midwife _____
   d. Health technician _____
   e. Environmental health specialist _____
7. Most common health problems and diseases
   a. _____
   b. _____
   c. _____

Communication

8. There is automatic phone in the village _____ how many? _____

Drinking-use water

9. Is there a water supply network? _____
10. If not, number of village/settlement fountains? _____
11. Is water supply adequate? _____
12. Drinking water for animals adequate _____ inadequate _____

Electricity

13. There is electricity? _____ Are there problems? _____

Transportation-access

14. Transportation from the village to other villages and to the district center
    a. Possible in all seasons _____ Blocked in _____
    b. Vehicles
        i. Minibus _____
        ii. Automobile _____
        iii. Tractor _____
        iv. Truck _____
        v. Other _____

SOCIAL STATE

Stratification

15. Stratification and Minimum Subsistence Threshold in Villages

Stratification (%)				*Minimum Subsistence (TL/month)*
Poor	*Average*	*Wealthy*	*Total Number of Households*	

16. Criteria for Wealth
    a. Land _____
    b. Labor force, no. of active persons in household _____
    c. Animal stock _____
    d. Tractor _____
    e. Truck _____
    f. Forestry works _____
    g. Regular income _____
    h. Beekeeping _____
    i. Other _____

Leadership, Solidarity, Participation and Relations with Govt. Organizations

17. Are there organizations for solidarity and production such as associations, cooperatives, etc?
18. If there are, what experiences exist in this area?
19. Are there works done through *imece*? If yes, what?
20. To what extent local people participate in any communal work in their village?
21. What about habits and tendencies to carry out joint work in villages?
22. Are there problems with neighboring villages? If yes, what?
23. Besides village headmen, are there any other influential persons in villages? If there are, who are they and what are their statuses?

24. Where and how are decisions relating to the village are taken? To what extent people take part in these processes and how decisions are made public?
25. How is mutual relationship between local people and governmental organizations? What are the forms and intensity of these relations?

Permanent Migration

26. Number of households out-migrating within the last 5 years _____
27. To which provinces do they generally move out? _____
28. What kind of jobs do they have in their new settlements? _____
29. Number of households planning to migrate _____

Seasonal Migration

30. Number of households going out for seasonal works _____
31. Number of persons going out for seasonal works _____
32. Places where seasonal works are performed _____
33. Months in which people are out for seasonal works _____
34. Average duration of employment in seasonal works days _____ months _____
35. Problems faced in seasonal employment
    a. _____
    b. _____
36. Income from seasonal works _____ TL
37. Amount brought back to village _____ TL
38. Number of households coming from somewhere else and settling in the village within the last 5 years _____
39. Their original places and reasons for coming in? _____

Status in Social Security

40. Number of People in Villages Covered by Social Security

S S K	*BAĞ-KUR*	*ERF*	*rivate surance*	*reen ard*	*Receiving benefits for age 65 +*	*al*

41. Dependents of those covered by insurance schemes _____

ECONOMICAL STATE

Total Land Endowment and Patterns of Use in Villages

42. Land endowment and patterns of use

Use	Size (da)
Crop (wheat, potato, corn, etc.)	
Fruit orchards (apple, pear, walnut, hazelnut, etc.)	
Fallow land	
Horticulture	
Forested	
Range	
Pasture	

Idle	
Poplar grove	
Total	

43. Leasing land from others (size, payment)
44. Leasing land to others (size, payment)

Crop farming

45. Major crops raised in villages (decare)

Crops	**Total**		**Yield**
	Decare	**%**	**Decare/kg**
Tobacco			
Corn			
Hazelnut			
Wheat			
W. melon			
Sugar beet			
Chickpea			
Bean			
Poplar			
Vegetables			
Pumpkin			
Not tilled			
TOTAL			

46. Mechanization in Agriculture

Number of tractors _____
Number of harvesters _____
Other machinery _____

Animal Husbandry

47. Animal Stock

Cattle	
Domestic	
Cross-bred	
Culture/pure	
No. Of households without any animal	
Other	
Sheep	
Goat	
Number of households	
Draft animals	
Horse, donkey and mule	
Buffalo, ox	
Poultry	
Hens and roosters	

Turkey	

Yield and Processing in Animal Husbandry

48. Milk _____ liter/day
49. Meat _____ kg/(per animal)
50. Milk marketing
    a. Where? _____ _____ TL(Lt
    b. Which months? _____
    c. Butter and cheese? _____ _____ TL/Lt
    d. Income derived from animal products _____

Level and form of rangeland utilization

51. Number of animals left out for grazing Cattle..... Sheep/goat.....
52. Times of going out to and coming back from grazing
53. Is there an order/system in grazing practices?

Beekeeping

54. Number of households engaged in beekeeping? _____
55. How is beekeeping practiced? _____
56. Total number of hives _____
57. Honey yield kg/hive _____

Forestry activities

58. Number of households engaged in forestry activities_____ income _____
59. Months of working in forests _____
60. Number of households taking part in reforestation activities _____income _____
61. Number of households taking part in tending activities_____income _____
62. Households receiving ORKÖY support
    a. _____
    b. _____
    c. _____

Other income generating activities

63. Handicrafts (carpet/kilim weaving)
64. Wood works
65. Walnut and chestnut marketing
66. Secondary forest products (mushroom, fruits, leaves, rosehip, lime tree flowers, etc.)
67. Tourism
68. Primary sources of income and priorities

Sources of income	Priorities
Crop farming	
Cattle husbandry	
Sheep/Goat husbandry	
Wages, retirement benefits, social support schemes	
Seasonal employment elsewhere	
Forestry works	
Beekeeping	
Vegetable culture	
Handicrafts	
Secondary forest products	
Other	

Credit utilization

69. Credit institutions applied to
70. What they do with loans?
71. Why they need loans?
72. Are repayments timely*
    a. If not, why?

Number of Landless Households	*Credit Extending Institutions*		*ORKÖY*
	TKK	*ZB*	

TKK: Agricultural Credit Cooperatives; ZB: Agriculture Bank

PROBLEMS RELATED TO PRODUCTION; SOLUTIONS AND SUGGESTIONS

73. Problems and Solutions

Issues	Problems	Solutions
Crop farming		
Animal husbandry		
Forestry works		
Beekeeping		
Other		

74. What alternative sources of income may be considered?
    a. _____
    b. _____
75. Three important problems of the village and pertinent solutions

PROBLEMS	SOLUTIONS

ANNEX 4. THREATS, ROOT CAUSES AND BARRIERS

Since the project area is less developed it has been possible to preserve it relatively well. But there are potential threats that may cause the destruction of natural landscapes. Preventive measures must be taken before the impact on natural systems becomes irreversible.

Table 1: Threats within the KMNP (37,000 hectares)

Biological Impact	Root Causes	Normative state	Barriers to achieving the normative state	Solutions: Interventions for project
1. Road construction (current threat; high)				
New road from Arit to Kurucasile that bisects KMNP has already caused fragmentation of habitats, preventing free movement of species; has enabled human access to formerly inaccessible forest areas, thus increasing the potential threats to these areas from hunting or illegal logging; small mammals and reptiles can accidentally be killed once traffic flow begins; threat from road construction is exacerbated by the nature of the area's geology.	New road is widely believed, particularly by local authorities, to be essential for providing access for tourism	No further approvals for road construction in the area, and increased capacity of locals and KMNP authority to manage the implications of easier road access and minimize adverse impacts on biodiversity	Terrestrial land use plans (that are above PA management plans in the planning hierarchy) for the area are incomplete and therefore there is always the potential for new development projects to go through. Management capacity of KMNP authority is weak compared to the potential increased stress from improved access	Outcome 2 of the project will: Develop local capacity for advocacy Outcome 3 will ensure completion of terrestrial land use plans by GDEIAP and ensure KMNP management plan for the park and its buffer zone is integrated Outcome 1 of the project will: Enhance management presence KMNP authority Establish a system for biodiversity survey and monitoring Develop and implement a comprehensive protected area management plan Put in place specific mechanisms for participation of locals in management of Park
2. Hunting (current threat; medium)				
Animals such as brown bear, roe deer, wild boar, red deer and lynx are widely hunted and this is affecting population numbers. Brown bear, red deer and lynx are threatened species.	Local villagers perceive wildlife more as a threat than a benefit. Wild boars in particular have been known to cause substantial crop damage. A traditional belief in the medicinal properties of brown bear fat represents an important incentive for hunting this species.	Ban against hunting of protected species is strictly enforced and, for other species, hunting in the buffer zone is regulated based on scientifically determined limits	While there is a hunting law and MOEF has declared Brown bear, red deer and lynx as protected species, there is limited capacity on the part of KMNP management to monitor and control poaching For other species, there is no hunting management plan in effect at KMNP Locals are not aware of the economic benefits that could accrue from fauna conservation for example through revenues from	Outcome 1 of the project will: Enhance management presence KMNP authority Establish a system for biodiversity survey and monitoring Develop and implement a comprehensive protected area management plan which will include recommendations on conservation and management of hunted species Put in place specific mechanisms for participation of locals in management of Park

Biological Impact	Root Causes	Normative state	Barriers to achieving the normative state	Solutions: Interventions for project
			ecotourism. Presence of large mammals such as brown bear and lynx are important signs of the degree of wilderness in an area. Therefore an area which hosts brown bear and lynx populations as well as red deer and follow deer is truly an interesting site to visit for an educated visitor. This adds additional "market value" to the site.	Outcome 2 of the project will: Make available to locals alternative income generation options along with access to credits according to GDFVR regulations
3. Wild plant collection (current threat; medium)				
The area, which hosts rich orchid flora, is under threat due to collection and trade of *Himantoglossum, Ophrys* and *Orchis.* Himantoglossum caprinum (Bieb.) Sprengel is EN (endangered at European level) and is in Bern I list. There are 4 Ophyris species which are DD (Data Deficient). There are 9 Orchis species which are also DD (Data Deficient)	Market demand	Collection and trade of orchids should be controlled by KMNP Managers and provincial Forest and Environment Directorates	Collection and trade is under the authority of MOA by taking permission from MOEF which is responsible for species protection. MOA provincial directorates that should supervise collection and trade do not have proper mandate; do not have technical ability to put in place a sustainable harvest regime; do not have capacity to monitor collection and trade	Outcome 1 of the project will: Include control of orchid harvest based on scientifically determined sustainable yields in the Management Plan Local collectors be trained in appropriate harvest techniques Capacity of MOA provincial Directorates will be developed to monitor and control Turkey's exports in this area
4. Uncontrolled tourism and recreation (potential threat)				
Intensifying recreational use may harm natural landscapes if it is not well planned and implemented. For example, there are numerous caves in the karstic limestones, which have not yet been sufficiently investigated. Some amateur groups have made some investigations but they are not satisfactory. Some degradation has already been noted in the major caves. The degradation will become even more severe, unless a suitable visitor management system is established.	Increased interest in nature tourism among Turkish citizens Increased interest among local residents in the potential to earn income from tourism	Ecotourism pontential is well-managed to generate local utilitarian stake in conservation	Limited capacities on the part of the existing KMNP authority to regulate ecotourism	Outcome 1 of the project will: Develop and implement an ecotourism development strategy and a visitor management plan, with local involvement Raise awareness locally and nationally of the potential of ecotourism, as well as the importance of developing this within limits of acceptable change Raise capacity of local NGOs
5. Logging (potential threat)				
Disturbance of habitat affecting ecosystem health	Following the designation of National Park status,	Illegal activity within KMNP is closely monitored and	Capacity of locals and KMNP authority to work together to monitor and check illegal	Outcome 1 of the project will: Enhance capacity of KMNP authority and also increase

Biological Impact	Root Causes	Normative state	Barriers to achieving the normative state	Solutions: Interventions for project
	intensive tree felling will not occur. However, with improved access due to the road, the likelihood of illegal logging occurring has increased Locals harvest wood for sale, self-consumption	checked by KMNP authority and local people	activity is weak Locals need alternatives to harvesting wood for sale or self-consumption	participation of locals in such safeguarding activities Outcome 2 of the project will: Make available to locals alternative income generation options along with access to credits according to GDFVR regulations Increased biomass production to meet local demand

Table 2: Threats primarily originating in the buffer zone (80,000 hectares) and beyond

Biological Impact	Root Causes	Normative state	Barriers to achieving the normative state	Solutions: Interventions for project
1. Erosion due to loss of tree cover (current threat; low)				
Avalanches and other natural disasters in the rainy season in the buffer zone cause large quantities of sediment to be carried down to the rivers in very short periods of time. The heavy sediment load has an adverse effect on fish habitat and recreational use in the coastal strip between Cide and Kurucaşile. Limestones are surrounded by loose materials. The groundwater, which is fed by dolines and sinkholes, flows through spaces and cavities in the limestone and discharges through permeable formations, as it cannot flow down further due to the presence of impermeable layers. Surface flow of rainfall and melting of snow increases risk of erosion in these areas.	*Intensive tree felling*: Logging concessions in the buffer zone.	Implement Sustainable Forest Management in concessions Ensure adequate tree cover, especially in sites that are particularly vulnerable to erosion, by control of felling activity	GDF does not have the expertise to develop and implement SFM There is no comprehenisive information on areas vulnerable to soil erosion	Outcome 2 of the project will: Develop and implement new sustainable forest management plans, and multi-purpose forest management and silvicultural plans that intergate biodiversity considerations Develop and implement a targeted program for soil erosion control
	Conversion of forest to agriculture: this appears to be diminishing, yet may persist to some extent.	Ensure that allocation of land in buffer zone to different uses takes into account ecological impacts	GDEIAP has not completed territorial land use plans and does not have the capacity to assess ecological impact of allocating certain lands to agriculture	Outcome 3 of the project will: Ensure that land use plans are completed by GDEIAP Train GDEAIP staff in integrating biodiversity concerns in land use plans
2. Unsustainable harvest of non-wood forest resources (current threat; medium)				
People residing in villages in the buffer zone harvest a range of non-wood products such as lime flowers, mushrooms, cornel, rosehip, chestnuts, and collection of box-tree, hornbeam and poplar wood for spooncarving. Extraction techniques may well harm or even destroy regeneration of some natural resources	Need for generating cash income or for self-consumption	Extraction should be carefully managed and carried out using sustainable techniques. Locals should capture and	There is no comprehensive understanding of the extent of harvest, its potential to generate cash income and its potential to inflict harm There is no systematic effort	Outcome 2 of the project will: Ensure that GDF can develop and implement a non-wood forest products extraction plan with local participation Make available to locals alternative

Biological Impact	Root Causes	Normative state	Barriers to achieving the normative state	Solutions: Interventions for project
		retain maximum value from harvest and sale of resources	to work with locals to put in place a sustainable harvest regime	income generation options along with access to credits according to GDFVR regulations

In addition to the above threats in the buffer zone, there are also other potential threats such as the possibility of new water impoundment projects, the opening up of new roads, and a deterioration in water quality from waste and sewage discharge from the transient (tourists) and permanent population. While these are not current threats, it will be important for local stakeholders to maintain pressure advocating against the implementation of any development projects that could jeopardise the health of the ecosystem.

ANNEX 5. M&E BUDGET

Type of M&E activity	Responsible Parties	Budget US$	Time frame
Inception Workshop (IW)	Project Coordinator UNDP CO, UNDP GEF	5,000	Within first two months of project start up
Inception Report	Project Team UNDP CO	None	Immediately following IW
Measurement of Means of Verification for Project Purpose Indicators	Project Coordinator will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members	To be finalized in Inception Phase and Workshop. Cost to be covered by targeted survey funds.	Start, mid and end of project
Measurement of Means of Verification for Project Progress and Performance (measured on an annual basis)	Oversight by Project GEF Technical Advisor and Project Coordinator Measurements by regional field officers and local IAs	TBD as part of the Annual Work Plan's preparation. Cost to be covered by field survey budget.	Annually prior to APR/PIR and to the definition of annual work plans
APR and PIR	Project Team UNDP-CO UNDP-GEF	None	Annually
TPR and TPR report	Government Counterparts UNDP CO, Project team UNDP-GEF RCU	None	Every year, upon receipt of APR
Steering Committee Meetings	Project Coordinator UNDP CO	None	Following IW and annually thereafter.
Technical and periodic status reports	Project team Hired consultants as needed	10,000	TBD by Project team and UNDP-CO
Mid-term External Evaluation	Project team UNDP- CO UNDP-GEF RCU External Consultants (evaluation team)	40,000	At the mid-point of project implementation.
Final External Evaluation	Project team, UNDP-CO, UNDP-GEF RCU External Consultants (evaluation team)	46,000	At the end of project implementation
Terminal Report	Project team UNDP-CO External Consultant	None	At least one month before the end of the project
Audit	UNDP-CO Project team	7,000	Yearly
Visits to field sites (UNDP staff travel costs to be charged to IA fees)	UNDP CO, UNDP-GEF RCU Government representatives	None	Yearly average one visit per year
TOTAL indicative COST Excluding project staff time, UNDP staff and travel expenses.		108,000	

ANNEX 6. MANAGEMENT EFFECTIVENESS TRACKING TOOL FOR KURE MT

Section One: Project General Information

Project Name: Enhancing coverage and management effectiveness of the subsystem of forest protected areas in Turkey's national system of protected areas
Project Type (MSP or FSP): MSP
Project ID (GEF): 1026
Project ID (IA): 1988
Implementing Agency: UNDP
Country(ies): Turkey

Name of reviewers completing tracking tool and completion dates:

	Name	**Title**	**Agency**
Work Program Inclusion	Sedat Kalem	Director, Forest Program	WWF
Project Mid-term			
Final Evaluation/project completion			

Project duration: ***Planned***___3__ years ***Actual*** _____ years

Lead Project Executing Agency (ies):

GEF Operational Program:
□ drylands (OP 1)
□ coastal, marine, freshwater (OP 2)
X forests (OP 3)
□ mountains (OP 4)
□ agro-biodiversity (OP 13)
□ integrated ecosystem management (OP 12)
□ sustainable land management (OP 15)

Other Operational Program not listed above:_____

Project coverage in hectares

Targets and Timeframe **Project Coverage**	**Foreseen at project start**	**Achievement at Mid-term Evaluation of Project**	**Achievement at Final Evaluation of Project**
Extent in hectares of protected areas targeted by the project	37,000 ha		

Name of Protected Area	Is this a new protected area? Please answer yes or no.	Area in Hectares	Global designation or priority lists (E.g., Biosphere Reserve, World Heritage site, Ramsar site, WWF Global 200, , etc.)	Local Designation of Protected Area (E.g, indigenous reserve, private reserve, etc.)	IUCN Category for each Protected Area[38]					
					I	II	III	IV	V	VI
1. Kure Mountain	No	37,000 ha	WWF Global 200,	National Park						

Name of protected area	**Küre Mountains National Park**		
Location of protected area (country and if possible map reference)	Turkey (Western Black Sea)		
Date of establishment (distinguish between agreed and gazetted*) or formally established in the case of private protected areas	Agreed 19 05 2000	Gazetted 07 07 2000	
Ownership details (i.e. owner, tenure rights etc)	100% state owned		
Management Authority	Ministry of Environment and Forestry (MoEF), General Directorate of Nature Conservation and National Parks		
Size of protected area (ha)	37,000 ha		
Number of staff	Permanent 5	Temporary 0	
Budget	100,000 USD Difficult to specify the exact figure, because budget is used for other PAs and wildlife management within the boundaries of the two provinces in which the NP is situated.		
Designations (IUCN category, World Heritage, Ramsar etc)	National Park, IUCN II		
Reasons for designation	Old growth forests (International Importance), geological formations (e.g. caves, gorges) (Int. Imp.), fauna (Int.. Imp.), flora (Regional Imp.), culture (Reg. Imp.), recreation and tourism (Reg. Imp.)		
Brief details of GEF funded project or projects in PA	n/a		
Brief details of other relevant projects in PA	FAO-UNDP project dated in 1998, led to the creation of the NP		
List the two primary protected area objectives			
Objective 1	Biodiversity conservation including wildlife (e.g. large mammals, birds of prey)		
Objective 2	Protection of landscape and the unique karstic geomorphology (gorges etc.)		
List the top two most important threats to the PA (and indicate reasons why these were chosen)			
Threat 1	P**overty** (causes poaching, illegal logging of certain rare tree species such as chestnut and boxwood)		

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I. Strict Nature Reserve/Wilderness Area: managed mainly for science or wilderness protection
II. National Park: managed mainly for ecosystem protection and recreation
III. Natural Monument: managed mainly for conservation of specific natural features
IV. Habitat/Species Management Area: managed mainly for conservation through management intervention
V. Protected Landscape/Seascape: managed mainly for landscape/seascape protection and recreation
VI. Managed Resource Protected Area: managed mainly for the sustainable use of natural ecosystems

Threat 2	**Fragmentation** by infrastructure development, potentially uncontrolled tourism development
List top two critical management activities	
Activity 1	Advocacy and lobbying work to prevent fragmentation by inappropriate infrastructure development; contamination of water and waste.
Activity 2	Patrolling in order to prevent poaching and illegal logging. Offering alternative areas for fuel wood collection,

Date assessment carried out: 31 03 2005

Name/s of assessor: Sedat Kalem (WWF Turkey), Gerald Steindlegger (WWF Austria/Int.)

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Ismail	Mentes	Kure Daglari Ekoturizm Dernegi (Local NGO)		

Issue	Criteria	Score	Comments	Next steps
1. Legal status Does the protected area have legal status? *Context*	The protected area is not gazetted	0		
	The government has agreed that the protected area should be gazetted but the process has not yet begun	1		
	The protected area is in the process of being gazetted but the process is still incomplete	2		
	The protected area has been legally gazetted (or in the case of private reserves is owned by a trust or similar)	**3**		
2. Protected area regulations Are inappropriate land uses and activities (e.g. poaching) controlled? *Context*	There are no mechanisms for controlling inappropriate land use and activities in the protected area	0	There exists a set of mechanism (NP law, central hunting committee decisions etc.) but there are problems in implementing effectively due to lack of capacity and resources (guards, vehicles and administrative infrastructure etc.)	
	Mechanisms for controlling inappropriate land use and activities in the protected area exist but there are major problems in implementing them effectively	**1**		
	Mechanisms for controlling inappropriate land use and activities in the protected area exist but there are some problems in effectively implementing them	2		
	Mechanisms for controlling inappropriate land use and activities in the protected area exist and are being effectively implemented	3		
3. Law enforcement Can staff enforce protected area rules well enough? *Context*	The staff have no effective capacity/resources to enforce protected area legislation and regulations	0	See 2.	
	There are major deficiencies in staff capacity/resources to enforce protected area legislation and regulations (e.g. lack of skills, no patrol budget)	**1**		
	The staff have acceptable capacity/resources to enforce protected area legislation and regulations but some deficiencies remain	2		
	The staff have excellent capacity/resources to enforce protected area legislation and regulations	3		
4. Protected area objectives Have objectives been agreed? *Planning*	No firm objectives have been agreed for the protected area	0	The PA objectives were developed by stakeholder process and are indicated in the draft NP development plan which is still not officially approved. Lack of capacity and resources are the main reasons for insufficient implementation.	
	The protected area has agreed objectives, but is not managed according to these objectives	**1**		
	The protected area has agreed objectives, but these are only partially implemented	2		
	The protected area has agreed objectives and is managed to meet these objectives	3		

Issue	Criteria	Score	Comments	Next steps
5. Protected area design Does the protected area need enlarging, corridors etc to meet its objectives? *Planning*	Inadequacies in design mean achieving the protected areas major management objectives of the protected area is impossible	0		
	Inadequacies in design mean that achievement of major objectives are constrained to some extent	1		
	Design is not significantly constraining achievement of major objectives, but could be improved	**2**		
	Reserve design features are particularly aiding achievement of major objectives of the protected area	3		
6. Protected area boundary demarcation Is the boundary known and demarcated? *Context*	The boundary of the protected area is not known by the management authority or local residents/neighbouring land users	0	Boundaries are not marked, local people are not aware of boundaries.	Demarcation is planned, after management plan is officially approved, public awareness raising is planned (boards, meetings, etc.)
	The boundary of the protected area is known by the management authority but is not known by local residents/neighbouring land users	**1**		
	The boundary of the protected area is known by both the management authority and local residents but is not appropriately demarcated	2		
	The boundary of the protected area is known by the management authority and local residents and is appropriately demarcated	3		
7. Management plan Is there a management plan and is it being implemented? *Planning*	There is no management plan for the protected area	0	There exists a draft NP development plan which is still not officially approved	The GDNCNP is considering to complete the official management plan on the basis of reviewing and revising the existing draft.
	A management plan is being prepared or has been prepared but is not being implemented	**1**		
	An approved management plan exists but it is only being partially implemented because of funding constraints or other problems	2		
	An approved management plan exists and is being implemented	3		
Additional points *Planning*	The planning process allows adequate opportunity for key stakeholders to influence the management plan	**1**	There was a stakeholder process in preparing management plan	
	There is an established schedule and process for periodic review and updating of the management plan	+1		
	The results of monitoring, research and evaluation are routinely incorporated into planning	+1		
8. Regular work plan Is there an annual work plan?	No regular work plan exists	**0**		
	A regular work plan exists but activities are not monitored against the plan's targets	1		

Issue	Criteria	Score	Comments	Next steps
	A regular work plan exists and actions are monitored against the plan's targets, but many activities are not completed	2		
Planning/Outputs	A regular work plan exists, actions are monitored against the plan's targets and most or all prescribed activities are completed	3		
9. Resource inventory Do you have enough information to manage the area? *Context*	There is little or no information available on the critical habitats, species and cultural values of the protected area	0		Biodiversity database of the NP and socio-cultural studies are considered to be completed within the next 1 (2) years.
	Information on the critical habitats, species and cultural values of the protected area is not sufficient to support planning and decision making	1		
	Information on the critical habitats, species and cultural values of the protected area is sufficient for key areas of planning/decision making but the necessary survey work is not being maintained	**2**		
	Information concerning on the critical habitats, species and cultural values of the protected area is sufficient to support planning and decision making and is being maintained	3		
10. Research Is there a programme of management-orientated survey and research work? *Inputs*	There is no survey or research work taking place in the protected area	0	There are some scientific studies conducted on a random basis, done by universities and research institutions but they are not comprehensive regarding the NP objectives/problems.	
	There is some *ad hoc* survey and research work	**1**		
	There is considerable survey and research work but it is not directed towards the needs of protected area management	2		
	There is a comprehensive, integrated programme of survey and research work, which is relevant to management needs	3		
11. Resource management Is the protected area adequately managed (e.g. for fire, invasive species, poaching)? *Process*	Requirements for active management of critical ecosystems, species and cultural values have not been assessed	0		
	Requirements for active management of critical ecosystems, species and cultural values are known but are not being addressed	1		
	Requirements for active management of critical ecosystems, species and cultural values are only being partially addressed	**2**		
	Requirements for active management of critical ecosystems, species and cultural values are being substantially or fully addressed	3		
12. Staff numbers Are there enough people employed to manage the protected area? *Inputs*	There are no staff	0		
	Staff numbers are inadequate for critical management activities	**1**		
	Staff numbers are below optimum level for critical management activities	2		
	Staff numbers are adequate for the management needs of the site	3		

Issue	Criteria	Score	Comments	Next steps
13. Personnel management Is the staff managed well enough? Process	Problems with personnel management constrain the achievement of major management objectives	**0**		
	Problems with personnel management partially constrain the achievement of major management objectives	**1**		
	Personnel management is adequate to the achievement of major management objectives but could be improved	2		
	Personnel management is excellent and aids the achievement major management objectives	3		
14. Staff training Is there enough training for staff? *Inputs/Process*	Staff are untrained	0	The NP does not have sufficient staff skilled properly in communication, biodiversity conservation, marketing, conflict resolution etc.	
	Staff training and skills are low relative to the needs of the protected area	**1**		
	Staff training and skills are adequate, but could be further improved to fully achieve the objectives of management	2		
	Staff training and skills are in tune with the management needs of the protected area, and with anticipated future needs	3		
15. Current budget Is the current budget sufficient? *Inputs*	There is no budget for the protected area	0	See data sheet.	
	The available budget is inadequate for basic management needs and presents a serious constraint to the capacity to manage	**1**		
	The available budget is acceptable, but could be further improved to fully achieve effective management	2		
	The available budget is sufficient and meets the full management needs of the protected area	3		
16. Security of budget Is the budget secure? *Inputs*	There is no secure budget for the protected area and management is wholly reliant on outside or year by year funding	0	There are no other funding mechanism in place, the budget is only depending on governmental funding	
	There is very little secure budget and the protected area could not function adequately without outside funding	**1**		
	There is a reasonably secure core budget for the protected area but many innovations and initiatives are reliant on outside funding	2		
	There is a secure budget for the protected area and its management needs on a multi-year cycle	3		
17. Management of budget	Budget management is poor and significantly undermines effectiveness	0	See data sheet PA management is split into two units (according to the provincial	
	Budget management is poor and constrains effectiveness	**1**		

Issue	Criteria	Score	Comments	Next steps
Is the budget managed to meet critical management needs? *Process*	Budget management is adequate but could be improved	2	boundaries). It seems to be a lack of effective and consistent use of the budget (prioritization!!)	
	Budget management is excellent and aids effectiveness	3		
18. Equipment Is equipment adequately maintained? *Process*	There is little or no equipment and facilities	**0**	Most importantly missing: Office closed to the NP (the current administration is situated 1 ½ hours away), visitor center equipment, vehicles, observation and monitoring facilities, etc.	
	There is some equipment and facilities but these are wholly inadequate	1		
	There is equipment and facilities, but still some major gaps that constrain management	2		
	There is adequate equipment and facilities	3		
19. Maintenance of equipment Is equipment adequately maintained? *Process*	There is little or no maintenance of equipment and facilities	**0**		
	There is some *ad hoc* maintenance of equipment and facilities	1		
	There is maintenance of equipment and facilities, but there are some important gaps in maintenance	2		
	Equipment and facilities are well maintained	3		
20. Education and awareness program Is there a planned education program? *Process*	There is no education and awareness program	0	No program in place, but several awareness raising and education activities by park management, NGO´s, universities.	
	There is a limited and *ad hoc* education and awareness program, but no overall planning for this	**1**		
	There is a planned education and awareness program but there are still serious gaps	2		
	There is a planned and effective education and awareness program fully linked to the objectives and needs of the protected area	3		
21. State and commercial neighbours Is there co-operation with adjacent land users?	There is no contact between managers and neighbouring official or corporate land users	0	There exists a good contact between park management and forest department but contact with other land users (villagers) is insufficient.	
	There is limited contact between managers and neighbouring official or corporate land users	**1**		
	There is regular contact between managers and neighbouring official or corporate land users, but only limited co-operation	2		

Issue	Criteria	Score	Comments	Next steps
Process	There is regular contact between managers and neighbouring official or corporate land users, and substantial co-operation on management	3		
22. Indigenous people *Do indigenous and traditional peoples resident or regularly using the PA have input to management decisions?* *Process*	*Indigenous and traditional peoples have no input into decisions relating to the management of the protected area*	*0*	*Not relevant*	
	Indigenous and traditional peoples have some input into discussions relating to management but no direct involvement in the resulting decisions	*1*		
	Indigenous and traditional peoples directly contribute to some decisions relating to management	*2*		
	Indigenous and traditional peoples directly participate in making decisions relating to management	*3*		
23. Local communities Do local communities resident or near the protected area have input to management decisions? *Process*	Local communities have no input into decisions relating to the management of the protected area	0		
	Local communities have some input into discussions relating to management but no direct involvement in the resulting decisions	**1**		
	Local communities directly contribute to some decisions relating to management	2		
	Local communities directly participate in making decisions relating to management	3		
Additional points Additional points *Outputs*	There is open communication and trust between local stakeholders and protected area managers	**0**	There seems to be a relatively better relation between stakeholders and NP management in Kastamonu than in Bartin.	
	Programmes to enhance local community welfare, while conserving protected area resources, are being implemented	+1		
24. Visitor facilities Are visitor facilities (for tourists, pilgrims etc) good enough? *Outputs*	There are no visitor facilities and services	**0**	There exists one accommodation only. Sufficient facilities are missing to make the NP an attractive destination. (Visitor center, signed tracks, guided tours, good maps, etc.)	
	Visitor facilities and services are inappropriate for current levels of visitation or are under construction	1		
	Visitor facilities and services are adequate for current levels of visitation but could be improved	2		
	Visitor facilities and services are excellent for current levels of visitation	3		
25. Commercial tourism Do commercial tour operators contribute to protected area management? *Process*	There is little or no contact between managers and tourism operators using the protected area	**0**		
	There is contact between managers and tourism operators but this is largely confined to administrative or regulatory matters	1		
	There is limited co-operation between managers and tourism operators to enhance visitor experiences and maintain protected area values	2		
	There is excellent co-operation between managers and tourism operators to enhance visitor experiences, protect values and resolve conflicts	3		
26. Fees	Although fees are theoretically applied, they are not collected	0	Entrance fees are not collected.	It is planned to establish entrance

Issue	Criteria	Score	Comments	Next steps
If fees (tourism, fines) are applied, do they help protected area management? *Outputs*	The fee is collected, but it goes straight to central government and is not returned to the protected area or its environs	**1**	It is estimated that approx. 20.000 people visit the park per annum. Fines are taken for poaching and illegal logging.	gates to collect fees. 2 TL per person 5 TL per car 50 TL bus
	The fee is collected, but is disbursed to the local authority rather than the protected area	2		
	There is a fee for visiting the protected area that helps to support this and/or other protected areas	3		
27. Condition assessment Is the protected area being managed consistent to its objectives? *Outcomes*	Important biodiversity, ecological and cultural values are being severely degraded	0	Caves (uncontrolled visiting) Illegal logging of Buxus sempervirens Castanea sativa. Poaching brown bear, deer. Collection of wild orchids. Fragmentation of eco-systems by road construction.	
	Some biodiversity, ecological and cultural values are being severely degraded	1		
	Some biodiversity, ecological and cultural values are being partially degraded but the most important values have not been significantly impacted	**2**		
	Biodiversity, ecological and cultural values are predominantly intact	3		
Additional points *Outputs*	There are active programmes for restoration of degraded areas within the protected area and/or the protected area buffer zone	+1		
28. Access assessment Are the available management mechanisms working to control access or use? *Outcomes*	Protection systems (patrols, permits etc) are ineffective in controlling access or use of the reserve in accordance with designated objectives	**0**		
	Protection systems are only partially effective in controlling access or use of the reserve in accordance with designated objectives	1		
	Protection systems are moderately effective in controlling access or use of the reserve in accordance with designated objectives	2		
	Protection systems are largely or wholly effective in controlling access or use of the reserve in accordance with designated objectives	3		
29. Economic benefit assessment Is the protected area providing economic benefits to local communities? *Outcomes*	The existence of the protected area has reduced the options for economic development of the local communities	0		
	The existence of the protected area has neither damaged nor benefited the local economy	**1**		
	There is some flow of economic benefits to local communities from the existence of the protected area but this is of minor significance to the regional economy	2		
	There is a significant or major flow of economic benefits to local communities from activities in and around the protected area (e.g. employment of locals, locally operated commercial tours etc)	3		
30. Monitoring and evaluation	There is no monitoring and evaluation in the protected area	**0**		

Issue	Criteria	Score	Comments	Next steps
Planning/Process	There is some *ad hoc* monitoring and evaluation, but no overall strategy and/or no regular collection of results	1		
	There is an agreed and implemented monitoring and evaluation system but results are not systematically used for management	2		
	A good monitoring and evaluation system exists, is well implemented and used in adaptive management	3		
TOTAL SCORE		**31** **= (30/29)x29+1**		

ANNEX 7: DRAFT PARTNERSHIP AND CO-OPERATION PROTOCOL BETWEEN MINISTRY OF ENVIRONMENT AND FORESTRY AND WWF-TURKEY

Partnership and Cooperation Protocol
between the Ministry of Environment and Forestry of the Republic of Turkey
and WWF-Turkey (Doğal Hayatı Koruma Vakfı) on the Project: *"Turkey - Collaborative biodiversity and natural resource management at the Kure Mountains National Park (CBNRMKMNP) and its buffer zone"*

The aim of the partnership and cooperation protocol between between the Ministry of Environment and Forestry of the Republic of Turkey and WWF-Turkey on the Project: *"Turkey - Collaborative biodiversity and natural resource management at the Kure Mountains National Park and its buffer zone (CBNRMKMNP)"* is to set the principles for joint implementation of the project, which has been developed and submitted to the Global Environment Facility (GEF) of the United Nations (UN) together. A copy of the project document is enclosed (Attachment 1).

I) The CBNRMKMNP document which has been prepared, with the participation of both parties and according to the format of GEF Medium Size Grants, will be submitted to the UNDP by the MoEF as a joint GO-NGO project and the official procedures will be followed up by the MoEF. The parties will timely inform each other about the progress.

II) The parties will get together on regular basis, in order to overview the Project and steer the implementation of project activities. A project steering committee will be established; its ToR will seperately be defined; and the parties will be represented in this committee at the highest possible level.

III) For a central coordination of the project, a Project Management Unit (PMU) will be created in Ankara and consist of the representatives of partner organizations (the GDs of the MoEF , WWF-TR and UNDP-Turkey).

IV) A Local Implementation Unit (LIU) shall be created at the project site under the coordination role of the PMU to carry out the project activities at local level. The LIU will consist of the local representatives of the partner organizations and responsible for implementing the project activities in collaboration with the partner organizations and Local Committees, whose structures and mandates are described in the project document.

V) Each project partner will be responsible to carry out the project activities as indicated in the proposed project document. However, some project activities which are coordinated by one of the sides, may be carried out jointly.

VI) This cooperation protocol will become official upon its signature by the parties and remain valid throughout the project period.

This cooperation protocol is prepared and has put into force on .....2005.

Prof. Dr. Hasan Zuhuri Sarıkaya
Undersecretary
Ministry of Environment and Forestry
Republic of Turkey

Filiz Demirayak
CEO
WWF-Turkey

ANNEX 8. NATIONAL LEGISLATION OF RELEVANCE TO THIS PROJECT

The Environment Law states, under ARTICLE 56 that everyone has the right to live in a healthy, balanced environment. ARTICLE 63 of the law requires the state to ensure conservation of historical, cultural and natural assets and wealth, and to take supportive and promotional measures towards that end under the following: Forestry Law (number 6831), National Parks Law (number 2873), Terrestrial Hunting Law (number 4915), Aquatic Products Law (number 1380), Law on Protection of Natural and Cultural Assets (number 2863), Environment Law (number 2872), Tourism Law (number 2634).

Environment and forestry law about organization and responsibilities (Number 4856)

Article 1: Organization and responsibilities of the Ministry of Environment and Forestry so as to protect the environment, to ensure the most appropriate and the most effective use and protection of the land and natural resources in rural and urban areas, to protect and promote the flora and fauna and natural values of the country and to prevent all kinds of environmental pollution, to protect and develop the forests and extend the forest areas, to develop the villagers living inside or nearby the forests and to take necessary measures to this end, to meet the need for forest products and to develop the forest products industry.

National Parks Law (Number 2873)

Article 1: The purpose of the present Law is to establish the principles governing the selection and designation of National Parks, Nature Parks, Natural Monuments and Nature Reserve areas of national and international value and protection development and management of such places without spoiling their characteristics.

Article 14: The following actions shall not be permitted in the areas falling in the scope of the present law:

a) The natural and ecological equilibrium and natural ecosystem value may not be spoiled.
b) Wildlife may not be destroyed.
c) Interference of all kinds which may cause disappearance or change or future change of the characteristics of these areas as well as activities or works that will create soil, water and air pollution or similar environmental problems may not be performed.
d) Production of forest products, hunting and grazing which will spoil the natural equilibrium may not be carried out.
e) Unless otherwise required, definitely by public interest and except the structures and facilities specified in the approved plans as well as the facilities required for the defense systems for the requirements of the Turkish General Staff, no facility may be built, nor operated. Furthermore no inhabitation shall be permitted outside the places of settlement existing in such areas, under any circumstances.

Decree on Specially Protected Areas:

The provision " ...In order to make the necessary regulations to ensure the sustainability of the natural resources for future generations, the Cabinet is responsible for determining and declaring the regions which have environmental pollution that have ecological substance in the national and international scale as "Private Environment Protection Regions" and defining the implementation of the protection, operating principles and deciding on by which ministry the planning and the projects will be prepared and implemented..." is present.

Law on Protection of Natural and Cultural Assets (2863)

Article 1- This articles purpose is to state the definition and protection of movable and immovable cultural and natural resources, to construct the process and activities, to define the establishment and the duties of the institution that make the necessary principles and implement decisions.

Article 3 - amended by the Legislation dated 17.6.1987, numbered 3386. The definitions and the abbreviations in this article are as follows:
Cultural properties signify immovable properties above, underground, or underwater that belong to the prehistoric and historic periods and is related to science, culture, religion and fine arts.
Natural properties signify immovable properties above, underground or under water that belong to the geological prehistoric and historic periods and deserve to be conserved due to their uniqueness, characteristics or beauty.
Site refers to the civic and civic remains that are to be protected for the reasons that they are the result of various civilizations that reflect the social, economic, architectural and similar characteristics, where important historical events occurred and that have defined natural features.

Law on Environment (No: 2872)
Article 1- The objective of this Act is to regulate the arrangements and measures to be conducted for the protection and improvement of environment; the best utilization and protection of the lands in urban and rural areas; the prevention of the contamination of water, soil and air; the improvement and assurance of health, civilization and living standards of future generations in compliance with the economic and social targets based on specific legal and technical essentials."

The scope of the objectives of Environment Act Article 1 directly includes forests and their protection. Forest is a rich environment for life inclusive of flora and fauna and an ecological system in quality of wealth with respect to natural composition.

Article 9 of the Environment Act with the heading of Environmental Protection is in direct relationship with forests. This Article says: "The areas under protection to be designated in line with the decisions for any land utilization in rural and urban areas, and the essentials relating to protection and utilization to be applied in these areas shall be regulated by law. In the framework of the essentials hereto, any extreme and inappropriate kind of utilization, any disturbance to the country's basic ecological balances as a result of importing any kind of waste and garbage from foreign countries, any risk for the species of flora and fauna, any damage to the entirety of natural presence shall be forbidden. The Board of Ministers shall be authorized to designate and announce the areas sensitive to nationwide and worldwide environmental disturbances and contaminations as being "Special Environmental Protection Areas" so that the prerequisite measures should be taken in order to guarantee the preservation for future generations, and to determine a Ministry which will prepare the essentials relating to protection and utilization as well as plans and projects."

It is prescribed that forests that fall in the areas of Special Environmental Protection shall be considered under Environment Act and therefore subject to special protection.

The Laws about Species Protection
International Conventions: CITIES, Berne,Ramsar, CBD, Barcelona

Terrestrial Hunting Law (no 4915)
Article 1- This laws purpose is to ensure sustainable hunting, protection of hunting and wild animals with their natural living environment, development, control of hunting, evaluate hunting resources for the benefit of the national economy and provide coordination between the related institution and the private corporate individuals.

Hunting and wild animal protection and protection grounds
Article 4: The natural living environments that enable hunting and provide for wild animals' nourishment, shelter, reproduction, and protection cannot be contaminated, waters cannot be polluted, drained and there natural structures cannot be changed.

Wild life in the wild life protection and development grounds cannot be demolished, ecosystem cannot be deteriorated, permission to the facilities that can effect wild life protection and development grounds and reproduction stations cannot be given even though they are out side of the grounds, if these facilities are present their waste cannot be released without being rectified, except for the buildings that are approved in the plans and no other facility or building can be built around the facilities, sharing rights cannot be given. The ministry can put forward any restrictions if necessary. Restrictions by any other public institutions cannot be made.

Acquatic products law (No: 1380)
Restriction on the usage of explosive and destructive substances:
Article 19 – It is forbidden to use bomb, torpedo, dynamite, capsule, and explosive substances of that sort or anaesthetic substances, unslaked lime, and without the permission of the Ministry of Agriculture and Rural Affairs electric flow, electro-shock, and air pressure for hunting aquatic products.

The implementation about this article is shown in regulations.
Depletion of destructive substances into water:
Article 20 – It is forbidden to deplete substances that destroy water products or who consume them or that damages the production, materials, equipment, instruments and tools, in internal waters and production areas in the seas or build any installment for depletion around those areas.

Restriction on water products production for foreigners:
Article 21 - Foreigners are forbidden to enter the fishery grounds or internal waters and produce water products according to the 8th Article of 476 numbered Territorial Water Law.

However, according to the Article 3 section 7 foreigner tourists and foreign workers that are permitted by the Ministry of Agriculture and Rural Affairs according to the Article 14 are exempted from this provision.
Restrictions on stream waters:

Article 22 - It is forbidden by the Ministry of Agriculture and Rural Affairs to set up webs, fences, barriers that prevent water products to flow or to reproduce without permission. It is mandatory to put fish passages or elevators and to keep them working on the barrages that are built or are to be built and facilities like regulators on the stream waters.

Genetic Diversity : Ban on import/export of GMOS (Genetically Modified Organisms) MARA (Ministry of Agriculture and Rural Affairs) instructions for R&D ON GMO

Forestry Law (No: 6831)
Article 2: The Act relating to the Reinforcement of Forest Villagers, the National Afforestation and Mobilization Act, and the Act Relating to the Organization and Assignments of the Forest Ministry and the Forest General Directorate is to regulate the essentials relating to the designation of national parks, natural parks, natural monuments and natural maintenance areas having national and international importance, and the preservation, improvement and administration thereof without damaging their characteristics and specifications.

Article 4 - Forestry ownership and administration:
a) Government Forests
b) Forests that belong to corporate individual containing public institutions
c) Private forests
In regards to character and qualification
a) Conservation forests

b) National parks
c) Production forests

Article 25: The General Directorate of Forest shall deal with the allocation of the forest to science deemed necessary by location and specification as well as the areas which fall in the regulation of forest; the maintenance of nature; the assurance of the country's beauty; the provision of society's various sport and recreational needs; the provision of convenience to tourist acts; the allocation, arrangement and operation of national parks, natural parks, natural monuments, natural protection areas and forest promenade locations.

Tourism Law (No 2634)
In the determination of cultural and tourism preservation and development regions, tourism areas and tourism centers, account shall be taken of the natural, historical, archaeological and socio-cultural tourism assets of the country and the potential for winter, hunting and water sports, for health tourism and for other types of tourism.

Coast law (No 3621)
Legislation that defines the guidelines for the utilization and protection of the coasts.

ANNEX 9. INCREMENTAL COST ANALYSIS

A. PROJECT BACKGROUND

The project aims to strengthen the coverage and management effectiveness of protected areas within Turkey's forested areas. These areas remain underrepresented and management effectiveness is sub-optimal in those protected areas that have been established. While GoT is fully committed to increasing the effectiveness of the National System of Protected Areas in conserving the country's biodiversity, there is a need to demonstrate an effective and cost-efficient management paradigm, and to establish institutional absorptive capacities that will allow new areas to be incorporated into the system. Adding more paper parks to a PA system that is already suffering from weak management effectiveness is not the most cost-effective use of conservation resources as this would simply serve to stretch existing capacities and possibly reduce performance further. A preferred approach would be to improve cost-effectiveness and impact of conservation resources being invested in the existing system by addressing critical barriers, and then expanding this regime to include additional parks. These challenges and needs provide an entry point for the proposed GEF project, which will demonstrate cost-effective approaches for forest conservation management at Küre Mountains National Park and its buffer zone and will also take initial steps towards the adaptation and replication of this model at the remaining eight forest hot spots identified under WWF's Global programme of "Gifts to the Earth (GttE).

B. INCREMENTAL COST ASSESSMENT

Baseline

Nearly half of Turkey's forests are degraded due to intensive use of resources through the centuries. Turkey's forest biodiversity continues to face several threats including overgrazing, cutting, and encroachment. Few forest areas are under some form of formal protection under the national system of protected areas (less than 4% of the national forest cover), and even these areas are affected by sub-optimal management regimes. Under the baseline scenario, therefore, Turkey's highly diverse forest ecosystems will remain threatened.

A more detailed understanding of the type and nature of threats, root causes and barriers for KMNP is provided in Annex 4. This typifies the pressures faced by forest areas in other parts of the country. Briefly, threats within the KMNP include those posed by road construction, hunting, wild plant collection, uncontrolled tourism and recreation, and logging. In addition, there are threats emanating in the buffer zone such as erosion due to loss of tree cover and over-harvesting of non-wood forest products,. Some of these threats are present currently, while others could become problematic in the future as development continues apace in the wider landscape.

Conservation regime: In the absence of a GEF intervention, GoT (GDNCNP) will be devoting some resources to promote conservation in KMNP and the additional 8 hot spots. In the case of KMNP this includes staffing for basic management and operations. In the case of the other 8 sites, this includes activities such as field survey and demarcation of boundaries; basic Management Plan; background studies to declare the site as a National Park; declaration of site under appropriate status, etc. GOT will be investing $740,000 in this baseline level of management and operations. While this is inadequate to fully address threats to biodiversity, it is nevertheless a critical foundation on which GEF support can be built.

Forestry management: Under the baseline, GDF is in the process of shifting forest management planning process and methodology towards multi-functional planning (from traditional timber focused planning) at the national level. However, it is unlikely that multi-purpose forest management and silviculture plans will be implemented in the near term in KMNP and other hot spots without the GEF intervention providing the additional motivation to expedite this process near the forest hot spots. GDF's operational budget for this purpose is $4,150,000. In addition, GDFVR is responsible for relations between forests, forestry management and people living in forest villages and in this regard extends support to villagers for forestry related development activities. However, without the GEF project, their activities near the forest hot spots are unlikely to take into account biodiversity conservation concerns.

Water quality management: The local municipalities and communities do not have the capacity and knowledge to address sewage and waste management upstream of the forest hot spots. The problem may become more severe unless an intervention is made today. It may include identifying and leveraging additional resources for long-term management of water and waste.

Replication of conservation regime in other sites: In the baseline GoT will invest approximately $150,000 in extending conservation experience to the other 8 hot spots.

Alternative
An analysis of the baseline (summarized above and detailed in the main document under the section on Baseline Conservation Activities) demonstrated that several important steps have been taken in the recent past towards securing better conservation of KMNP. However, these activities have been carried out without a systematic approach or a comprehensive strategy, especially in terms of utilizing KMNP as a springboard for strengthening the effectiveness and coverage of the national system of protected areas in conserving forest protected areas. Therefore, GoT aims to benefit from GEF support to catalyze such a long-term strategy.

The **Project Goal** is long-term conservation of the most representative range of globally significant biodiversity in Turkey by strengthening the national system of protected areas. The **Project Objective** is to enhance coverage and management effectiveness of the Forest Protected Areas (FPAs) through demonstrating cost-effective approaches for effective conservation and sustainable resource management at Küre Mountains National Park and taking initial steps towards the replication of this model at the remaining eight forest hot spots. This objective will be realized through three projected outcomes detailed below (indicators of success and risks associated with each are in the project's logframe).

Global Environmental Objective
The expected global environmental benefits of the project will be to stabilize and rehabilitate Küre Mountains' globally significant karstic forest landscapes and its biodiversity. Flora populations and genetic assemblages will be protected and where appropriate sustainably used. Fauna populations and their natural habitats will be rehabilitated through conservation and sustainable development actions at two levels: i) within KMNP, ii) in immediate surroundings of KMNP (the buffer zone). The project, which will be a good example of public-private partnership for forest conservation, also aims to share its experience with the other 8 forest hot spots and thereby encourage its replication. The primary benefit provided by the project is related to the fact that, the future of Kure Mountains' outstanding karstic landscape features, natural habitats as well as flora and fauna populations will be safer and the natural resources will be sustainably used. This will contribute to the conservation of Turkey's biodiversity and sustainable use of forest resources in general. Turkey will have a demonstrated model of effective PA management model based on stakeholder cooperation, which could be used elsewhere in the country.

Systems Boundary
As the project aims to establish effective management in KMNP and facilitate replication to the remaining 8 forest hot spots, the system boundary for the incremental cost analysis encompasses all 9 forest hot spots. This is the system on which the GEF project will have a direct impact in terms of improving conservation capabilities. Baseline expenditures include those that will occur in the absence of a GEF intervention with the objective of reducing pressures on the 9 threatened forest hot spots. Expenditures are estimated over the 3 year duration of the project.

Summary of Costs
Baseline, alternative and incremental costs are presented in the table below. The GEF alternative amounts to **US$ 7,444,000** and the baseline is estimated at **US$ 5,040,000.** The difference between the GEF alternative and the baseline amounts to **US$ 2,404,000** which represents the incremental cost of achieving sustainable global environmental benefits. Of this amount, the contribution from non-GEF sources amount to **US$ 1,432,000.** The GEF is being requested to provide **US$ 972,000**.

Incremental Cost Matrix

Cost/Benefit	Baseline (B)	Alternative (A)	Increment (A-B)
Domestic Benefits	Local communities' activities could jeopardize long-term status of biodiversity	Local communities are capacitated and become active participants in the management of the unique natural resources of the area	Economic benefits that local communities can derive from conservation and sustainable use of the area are enhanced
Global Benefits	Globally significant biodiversity within Turkey's forest ecosystems will continue to be threatened	Better national capacity to secure effective protection of the 9 forest hot spots	Stabilization and rehabilitation of Turkey's forest hot spots; flora populations and genetic assemblages will be protected and where appropriate sustainably used; fauna populations and their natural habitats will be rehabilitated through conservation and sustainable development actions within the hot spots and in the immediate surroundings
Costs			
Outcome 1: Cost-effective conservation management approaches for forest protected areas are designed, piloted and adopted	Basic management and operations in KMNP; Other 8 hot spots -- field survey and demarcation of boundaries; basic Management Plan; background studies to declare the site as a National Park; declaration of site under appropriate status (740,000)	Demonstration of cost-effective approaches towards effective conservation management at Küre Mountains National Park and its buffer zone, and initial steps towards the adaptation and replication of this model at the remaining eight forest hot spots (1,826,000)	Increment GEF: 385,000 Additional GOT cofinancing: 665,000 WWF cofinancing: 36,000
Outcome 2: Sustainable natural resource management approaches demonstrated in buffer areas	Shift from forest management planning process and methodology towards multi-functional planning by GDF (4,150,000)	Enhanced emphasis in forestry areas surrounding KMNP and other 8 hotspots on forestry management; sustainable resource use; and development activities that mainstream effective protection of biodiversity within the Parks (5,008,000)	Increment GEF: 303,000 Additional GOT cofinancing: 555,000
Outcome 3: Lessons learned from demonstration work in the first established forest PAs are disseminated to the other forest hot spots in Turkey, contributing to the maturation of the PA system of Turkey	Minimal extension of conservation experience to other sites (150,000)	Experience of KMNP is leveraged to enhance effectiveness and coverage of the national sub-system of forest protected areas by including counterparts from the other 8 forest hot spots in training and experience sharing relating to protected area and buffer zone management (610,000)	Increment GEF: 284,000 Additional GOT cofinancing: 176,000
TOTAL	Total Baseline: 5,040,000	Total Alternative: 7,444,000	Total Increment: 2,404,000 GEF: 972,000 Additional GOT cofinancing: 1,396,000 WWF cofinancing: 36,000