

**THE STATE DEPARTMENT OF PROTECTED AREAS,  
NATURE RESERVES AND HUNTING ECONOMY**

**BORJOMI-KHARAGAULI NATIONAL PARK  
MANAGEMENT PLAN**

**DRAFT  
JUNE, 2003**

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## **FOREWORD**

Since the merger of the Borjomi Strict Nature Reserve with the Borjomi-Kharagauli National Park (BKNP), both areas have been managed as one unit under the Director of the Borjomi-Kharagauli National Park based in Borjomi. The updating and refinement of the first draft management plan (1995) for this new area was implemented in 1998 under the auspices of the World Wide Fund for Nature (WWF) with funding from the German Kreditanstalt für Wiederaufbau (KfW). The plan served as basis for the financial proposal to KfW which subsequently financed the establishment of the BKNP and its support zone in accordance with the first draft management plan.

The preparation of management plans for protected areas is a statutory requirement as the Government of Georgia (GoG), through its Department for Protected Areas, Nature Reserves and Hunting Economy (DPA) recognizes the importance of planning as a management tool.

This management plan that replaces the first draft plan is considered unique as it is the first officially approved management plan for a protected area in Georgia, has been elaborated in a truly participatory multidisciplinary and multi-stakeholder fashion and addresses the need for financial sustainability. As such it is hoped to serve as a model to all other management plans for protected areas in Georgia to come. It complies with all legal requirements.

## **ACKNOWLEDGEMENTS**

This management plan (MP) was made possible through the financial and technical assistance provided by the WWF Caucasus and the KfW. The plan was elaborated by the technical staff of the BKNP in close collaboration with key stakeholders under the technical guidance of Goetz Schuerholz from TAESCO Consultants.

Several persons both staff, technical experts and scientists have substantially contributed to this plan. Special thanks to Mzia Stepnadze (BKNP Chief Research and Monitoring Program), Zviad Gotsiridze (BKNP Director), Tariel Khijakadze (BKNP Deputy Director), Natia Muladze (BKNP Environmental Education Officer), Ramaz Kiknadze (BKNP Chief Visitor Program), Malkhaz Arevadze (BKNP Chief Protection Program), Iuza Vepkhvadze (Chief Support Zone Program), all members of the Core Planning Team and who were involved in every step of the planning process. Members of the full team (Annex 1) also did a commendable job in providing vital background information for this MP. The co-ordination role of Gogi Sanadiradze (Director of WWF Caucasus Office) cannot be emphasized enough. The DPA appreciates its entire staff, partners, stakeholders and others who were involved in the preparation of this plan.

Thanks also to all who have previously contributed to the first draft management plan and its baseline information that had been assembled under the guidance of Paata Shanshiashvili in close collaboration with a multidisciplinary core planning team.

## **ACRONYMS AND ABBREVIATIONS**

BKNP	Borjomi-Kharagauli National Park
CBD	Convention on Biological Diversity
CI	Conservation International
CIM	Center for International Migration and Development
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CPATFG	Caucasus Protected Areas Fund for Georgia
CPO	WWF Caucasus Programme Office
DPA	Department of Protected Areas and Hunting Resources
EIA	Environmental Impact Assessment
GEL	Georgian Lari
GoG	Government of Georgia
IUCN	The World Conservation Union
KfW	Kreditanstalt für Wiederaufbau
MoE	Ministry of Environment and Nature Resource Protection
MP	Management Plan
NGO	Non-Governmental Organization
NP	National Park
PA	Protected Area
SFD	State Forestry Department
SSR	Georgian Soviet Socialistic Republic
TFSC	Trust Fund Steering Committee
ToR	Terms of Reference
VIP	Very Important Person
WWF	World Wide Fund for Nature

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## **PREFACE**

### **Official Name for the Borjomi-Kharagauli National Park**

The official name chosen for this conservation area is “Borjomi-Kharagauli National Park”. The BKNP constitutes the first national park in Georgia established under the new Law on the System of Protected Areas from 1996. The national park is composed of the “Borjomi Strict Nature Reserve”, located in the vicinity of the city of Borjomi, and large tracts of forest-land and alpine meadows that formerly were part of the State Forestry Department. To do justice to both places the GoG decided to use the double name “Borjomi-Kharagauli” when creating the national park. Although the Borjomi Strict Nature Reserve has become an integral part of the BKNP it has maintained its legal status as a Strict Nature Reserve. The location of the BKNP is shown by Map 1.

### **Preparation of the Management Plan**

In order to adequately address the broad spectrum of issues and use potential of the park and its support zone twelve working groups were assembled. Each group was led by a member of the core planning team with the responsibility to draw in additional expertise on an as-needed basis (see Annex 1 for the composition of the working teams). The core planning team was composed of senior management personnel of the BKNP.

Working through a sequence of workshops and special consultations, the team and its working groups compiled information and interests, identified issues, reviewed the output of consultations, identified the purpose of gazettelement and the conservation values of the BKNP, agreed on the zoning scheme and zone prescriptions and drew up a set of policies and guidelines that set the framework for the different management programs incorporated into this management plan. A process of consensus was used to resolve competing interests and produce a package of land use and resource management agreements which form the basis of this management plan. The planning process lasted a full calendar year.

The core planning team assembled all information and agreements into this general management plan which then was reviewed by key stakeholders, senior staff of the Ministry of Environment and Nature Resource Protection (MoE), the DPA and NGOs before mandatory submission to relevant Ministries and final approval by the President of Georgia on                      2003.

The collection, presentation and discussion of data by the different working groups at frequent cross-sectoral information and planning sessions helped establish a sound working relationship among members of the core planning team and assisted in the development of true ownership in the management plan. Thanks to this highly participatory planning process an outstanding team spirit evolved amongst senior park staff that proved invaluable for management cooperation on all levels. The chosen planning method and process may therefore serve as a proven model to other protected areas in Georgia in need of management plans.

**Map 1. Location of the Borjomi-Kharagauli National Park**

## Arrangement of the Management Plan

This integrated management plan is divided into four parts:

- Part One labeled '**Introduction to the Borjomi Kharagauli National Park**' provides the park personnel with the basic information needed for placing the park into the relevant geographic, legal, biophysical and socio-cultural context. Part One is dedicated to the background and conceptual framework of the park.
- Part Two labeled '**Vision, Policies and Zoning**' provides a vision statement for the time period until 2015, specifies the long-term goals and key strategies to be adopted to reach the long-term targets and provides a zoning concept.
- Part Three labeled '**Operations**' describes the management programs and corresponding activities chosen for the BKNP. This part is considered the managers 'handbook' when in doubt and when in need of management guidance. It provides the framework for the elaboration of annual work-plans and program specific budgets.
- Part Four labeled '**Business Plan**' is dedicated to the financial aspects of the BKNP. It identifies the park's operational budget compared to the sources of income and revenue and it details fund raising strategies and financial mechanisms that will assist to cover expected future budget shortfalls.

The management plan builds on the achievements of the first draft plan that was used to guide the development process of the BKNP. It provides the framework for the future management of the park and will be used as basis for the annual work-plans to be elaborated by program coordinators for each management program. This MP will require periodic review and adjustment as objectives are attained or modifications become necessary. A review of the plan, especially of Part Four, is suggested to take place in five-year intervals.

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**PART ONE**

**INTRODUCTION TO THE BORJOMI-KHARAGAULI  
NATIONAL PARK**



## **1.1 LOCATION, HISTORY AND PURPOSE OF THE BORJOMI-KHARAGAULI NATIONAL PARK**

Borjomi-Kharagauli National Park (BKNP) is located in the central part of the Caucasus Isthmus and constitutes the eastern section of the Lesser Caucasus Mountain chain. Its geographic location is 43° 15' Longitude East and 41° 50' Latitude North (see Map 1).

The BKNP covers approximately 80 000 ha of forest ecosystems and sub-alpine and alpine meadows typical for the central region of the Lesser Caucasus in Georgia. Although man-caused alterations as a result of traditional grazing in sub-alpine and alpine grasslands and older signs of timber cutting and other forest uses are found inside the park area, the Strict Nature Reserve of the BKNP and other secluded areas that are difficult in access still sustain pristine wilderness. These areas have served as a refuge to the large spectrum of flora and fauna, representative of the Lesser Caucasus. It has provided protection to several rare and endangered species, relic species and species endemic to the central Caucasus Region.

The rationale for the creation of the Borjomi-Kharagauli National Park was to add additional areas to the existing Strict Nature Reserve which on its own is not considered large enough to meet the minimum critical size requirements needed to safeguard the ecological integrity of the ecosystems this sample area is meant to protect.

Another reason for the expansion of the Strict Nature Reserve and its incorporation into the national park category was to capitalize on the recreational and educational opportunities offered by a national park in contrast to the Strict Nature Reserve category which does not permit public access according to Georgian Law.

Over the past half-century, perceptions of the value of national parks have evolved and changed to reflect the growing concern that the health and well being of the planet depend on the maintenance of natural ecosystems and processes. As the use of natural resources by people increase, protected areas play an increasingly important part in maintaining such ecosystems and the diversity of species associated with them. Thus, new definitions of the purpose of a national park and other protected area categories must incorporate this vitally important function.

The current perception of the value of a national park in Georgia may be summarized as follows:

- National Parks conserve representative samples of the nation's natural heritage. By definition such areas are increasingly unique tracts of land whose uniqueness has the potential to attract, entertain, inspire and educate people, both local and foreign. Management of this value can thus generate a variety of spiritual, intellectual and economic benefits through recreation, interpretation and tourism.

- National Parks provide opportunities to sustain natural ecosystem processes through conservation of the biodiversity. Such processes are essential for human survival and sustainable development. The future of agriculture and many industries based on living resources depend on the preservation of genetic diversity. Management of this value can thus generate a variety of indirect economic benefits through:
  - (a) maintaining the environmental stability of the surrounding region and thereby reducing the intensity of floods and droughts, protecting the soil from erosion and limiting local climatic extremes;
  - (b) maintaining the productive capacity of ecosystems and safeguarding habitats critical for the sustainable use of economically important species, thus ensuring the continuing availability of water, plant and animal products;
  - (c) providing opportunities for research and scientific monitoring of the structure and function of natural ecosystems, especially as a benchmark against which the effects of human development may be assessed;
  - (d) providing opportunities for complementary rural development and the rational use of marginal lands.

Since its early creation in 1995 when 50 400 ha were placed under protection in form of a national park (including the Strict Nature Reserve), several areas have been added to the Borjomi-Kharagauli National Park in order to increase its ecological viability. The expanded park area now totals almost 80 000 ha, covered by mostly deciduous forests and natural grasslands above the timberline. The BKNP now represents the largest contiguous forest under protection and free of permanent human settlements in the Caucasus ecoregion. The BKNP provides sustainable protection to numerous sources of potable water used by the support zone communities and the city of Borjomi. It also protects natural springs of high quality mineral water, which generates much needed revenue in an economically marginalized area.

The park offers good opportunities for nature-based tourism and environmental education and a wide range of recreational opportunities in its support zone which includes the Borjomi health spa, the Bakuriani ski center and the Ktsia-Tabatskhuri high elevation lake area.

The numerous cultural/historic sites which date back to early Christianity are a special attraction in the support zone of the park. The Tori monastery, the Tba and Daba churches and the Atskhuri castle are just some examples of the region's outstanding historic architecture.

On the basis of the BKNP values described above, the purpose of the BKNP is defined thus:

**“To protect and conserve the diversity of landscapes, ecosystems, wildlife and culture of the protected area and to provide opportunities for the enjoyment and benefit of the people of Georgia and the world”**

## **1.2 THE NATIONAL CONTEXT**

Georgia has a total land surface area of 70 000 km<sup>2</sup> with a stable population of approximately 5.5 Million. 168 000 has are currently under protection in form of 14 Strict Nature Reserves. The protection category "Strict Nature Reserve" corresponds to IUCN's category I which does not permit resource utilization, public access and/or human settlements. Most Georgian Strict Nature Reserves protect sub-alpine forests and alpine grasslands.

Recognizing the need for an expansion of the existing PA system which at current only insufficiently represents Georgia's ecosystems, the Ministry of Environment (MoE) jointly with the WWF embarked shortly after the country's independence on an ambitious protected area expansion program. This movement gained momentum after President Shevardnadze's announcement in 1996 to convert 20 % of Georgia's territory into protected areas as a 'gift to the earth'. This commitment was made as a contribution to the WWF 2000 -The Living Planet Campaign.

In a joint effort funded by KfW, the WWF Georgia and Conservation International (CI) spearheaded an ecological gap analysis in 2002 which identified key priority conservation areas in the country in relation to the existing protected area system. The results of this analysis, which has been fully supported by the MoE, serve as basis for the proposed expansion of the current Protected Area (PA) system in the country of which the Borjomi-Kharagauli National Park has become an integral part.

## **1.3 ENABLING POLICY AND LEGISLATION**

It is essential that the BKNP managers understand the laws that empower them as NP officers, and the legal notices by which the national park was established. With this knowledge, they can effectively conduct their law-enforcement work, and address any legal challenges to the integrity of the protected area. The laws and policies pertaining to wildlife, traditional resource use and biodiversity conservation in Georgia in general, and the BKNP in particular are summarized below.

### **1.3.1 General Legislation, Policies and Treaties**

### 1.3.1.1 The Constitution

Overall government policy on natural resource conservation is enshrined in the Constitution of Georgia (1995), which provides that:

- everyone has the right to live in a healthy environment (Article 37, Paragraph 3);
- everyone is obliged to protect the natural environment (Article 37, Paragraph 3);
- the state guarantees the protection of nature and the rational use of it to ensure a healthy environment, corresponding to the environmental and economic interests of society, and taking into account the interests of current and future generations (Article 37, Paragraph 4).

On this basis the framework Law on Environmental Protection was passed in 1996, which stimulated adoption of sector laws in the field of environment and nature conservation listed below:

- Law on the System of Protected Areas of 1996;
- Law on Environmental Permit (Environmental Impact Assessment Law) of 1996;
- Law on State Ecological Examination of 1996;
- Wildlife Law of 1996;
- Water Law of 1997;
- Law on Establishment and Management of Kolkheti Protected Areas of 1998;
- Atmospheric Air Protection Law of 1999;
- Forestry Code of 1999;
- Law on the Enlargement of the Borjomi-Kharagauli National Park of 2001.

### 1.3.1.2 International Treaties and Obligations

The following conventions are of the most direct and immediate importance for the conservation of biodiversity in Georgia:

Multilateral International Agreements		Comment *
1	Convention on Biological Diversity (CBD), 1992	A-02/06/1994
2	Convention on Wetlands of International Importance, Ramsar, 1971	D-07/06/1997
3	Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Washington, 1973	A-13/09/1996; D-12/12/1996
4	Convention on the Conservation of Migratory Species of Wild Animals, Bonn, 1979	D-01/06/2000
5	Agreement on the Conservation of Bats in Europe	R-21/12/2001
6	Agreement on the Conservation of African-Eurasian Migratory Waterfowl	D-01/08/2001
7	Convention Concerning the Protection of the World Cultural Heritage	A-04/11/1992
8	United Nations Convention to combat Desertification, Paris, 1994	S-15/10/1994; R-23/07/1999

9	Kyoto Protocol of the United Nations Framework Convention on Climate Change	R-16/06/1999
10	Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, Aarhus, 1998	S-25/06/1998; R-11/04/2000

\* S - date of signature, A - accession, R - ratification, D - date to entry into force.

The most relevant International Convention/Agreement in the context of the BKNP is the Convention on Biological Diversity. Article 8 of this Convention obliges member states to:

- establish a system of protected areas with representative samples of all ecosystems (terrestrial and aquatic) characteristic for the country;
- develop guidelines for the selection, establishment and management of protected areas;
- promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species (flora and fauna) in natural surroundings;
- regulate or manage biological resources important for the conservation of biological diversity with a view to ensuring their conservation and sustainable use;
- rehabilitate and restore degraded ecosystems and promote the recovery of threatened species;
- develop or maintain necessary legislation and/or other regulatory provisions for the protection of threatened species and populations.

Article 6 of the Convention (General Measures for Conservation and Sustainable Use) requires member states to develop or adopt national strategies, plans or programs for the conservation and sustainable use of biological diversity and to integrate the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programs and policies.

Other Conventions of relevance to Georgia's protected area system include CITES which obliges member states to adhere to the recommendations of the Conference of the Parties with respect to trade in endangered species and the RAMSAR Convention which emphasizes the need to conserve wetlands and which requires member states to include at least one wetland on the list of Wetlands of International Importance.

### **1.3.1.3 Responsible Agencies**

Certain agencies/authorities have been assigned the responsibility of managing natural resources on behalf of the Government of Georgia. The Ministry of Environment (MoE) declares protected areas on behalf of the Department of Protected Areas and Wildlife (DPA) which then have to be endorsed by the Parliament. The Chief of the DPA is appointed by the President of Georgia. The Chairman of DPA directly reports to the President of Georgia and is empowered to appoint officers to manage the PAs.

The status of the DPA is defined by the “Law on the Structure and Rule of Action of the Executive Power” of 1997. Detailed responsibilities, rights, obligations, duties, organizational structure, tasks and purposes of the DPA, as well as legal status of the protected area administration are defined by the Charter of the DPA, which is approved by the Decree of the President of Georgia #568 of October 9, 1997 (i.e., “On the Charter of the State Department of Protected Areas, Nature Reserves and Hunting Management of Georgia”).

The jurisdiction of the DPA (mandate) is limited to the areas with designated protection status. The two key protected area categories in Georgia with the strictest protection provided to the corresponding area are “Strict State Nature Reserves”, and “National Parks”. The jurisdiction of PA management does not cover support zones and/or multiple use areas classified by IUCN as “category VI” areas.

According to the “Law on the System of protected Areas of Georgia from 1996”, management plans have to be elaborated for each protected area to be used for PA management, budget planning and the preparation of annual work-plans in accordance with the long-term objectives of the area.

The “Borjomi-Kharagauli National Park and Borjomi State Nature Reserve” was approved by the Order of the Chairman of the DPA #5<sup>a</sup>/11 on the 25 th of May, 1999. However, the above order is not a “statutory instrument” with legal power because it has not yet been officially registered and/or published to date, as required by Georgian law. The official issuing of a new order that legalizes the BKNP is therefore of critical importance.

The “Wildlife Law” of 1996 mandates the MoE to regulate wildlife use and protection on the whole territory of the country, including existing PAs. The same law provides the DPA with the responsibility to manage wildlife in protected areas. The MoE is empowered by the “Wildlife Law” of 1996 to issue hunting permits and licenses, declare hunting areas etc.

In accordance with the “Forest Code” of 1999 all forest lands are divided into: (a) forest lands under the management of the State Forestry Department (SFD), and (b) forest lands under the management of the DPA. Forests under the management of the SFD are controlled by the organizations subordinated to the SFD and forests under the management of the DPA are controlled by the protected areas administration. According to the “Forestry Code” of 1999 the SFD sets forest policies.

All forestry issues within the boundaries of protected areas are managed according to the “Forestry Code” of 1999 and the “Law on the System of Protected Areas” of 1996. The two frame-laws that currently regulate forest management in protected areas are controversial, contradictory and require legal clarification and clear separation of mandates and prescriptions.

In accordance with the Forestry Code of 1999 the President of Georgia declares boundaries of so called “Protection Forests”. From a legal point of view there is no single

forest area in Georgia at current which enjoys the status of a “Protection Forest” according to the new Forestry Code. The boundaries of the existing “Protection Forests” (including protected areas) were approved by the Decree of the Council of Ministers of the Georgian Soviet Socialistic Republic (GSSR) in the early 70-ies of the last century. With the enactment of the Forestry Code of 1999, however, the above decree was legally revoked.

The Ministry of Environment and Natural Resources Protection (MoE) jointly with the Ministry of Urbanization and Construction coordinate the PA system planning. Although the MoE is not an implementing agency as such it is mandated with the enforcement of environmental laws that also apply to protected areas under the jurisdiction of the DPA and SFD.

The Government on the district, city and community level do not have direct authority regarding protected areas, but have been provided “indirect” authority to be involved in PA planning (and management) through their mandate for environmental, land use and general land management matters (“Organic Law on the Local Self-Government and Government of 1997”).

The “Law on Environmental Protection” of 1996, the “Law on Environmental Permit” of 1996, and the “Law on State Ecological Examination” of 1996 require the implementation of Environmental Impact Assessment (EIA) and “State Ecological Examination” for activities and development plans specified by the respective laws which also applies to development proposals specified in management plans of PAs.

A full EIA Statement has therefore to be submitted to the MoE jointly with a draft management plan for approval. Only if the EIA is approved during a “State Ecological Examination” in a public and participatory process, the MoE will issue an Environmental Permit to implement the management plan. The DPA is responsible for both the preparation of the draft management plan and the EIA statement. Once the draft plan is approved by the MoE it still requires a presidential decree. The approval of a management plan by the President of Georgia requires prior written approvals by government agencies and other stakeholders (local authorities, academic organizations, etc.) with a vested interest in such a plan. On presidential approval (Decree of the President of Georgia) a management plan becomes a legally binding statutory document.

### **The Borjomi State Nature Reserve**

The Borjomi State Nature Reserve was first established in the mid 30-ies of the last century, based on a Decree of the Government of Georgia. In 1951 the Reserve was abolished and lands transferred back to the local forestry authorities. On January 22, 1959 the Council of Ministers of the Georgia issued the Decree #45 “On The Organization, Restoration and Enlargement of Some Nature Reserves in Georgia”. In accordance with

this Decree the Borjomi State Nature Reserve was re-established covering 13,600 ha. In subsequent years the reserve was enlarged. Today it covers 17,948 ha.

On July 28, 1995 the Cabinet of Ministers of the Republic of Georgia approved the first management plan of the Borjomi-Kharagauli NP by Decree #447 (article 6) “On Promoting Measures for the Creation of the System of Protected Areas and Establishment of the Borjomi-Kharagauli National Park”. This plan, in addition to the Borjomi-Kharagauli NP itself, covered also the Borjomi NR, Nedzvi Sanctuary, Ktsia-Tabatskuri Sanctuary, Tetrobi Sanctuary and the Buffer Zone of the Borjomi-Kharagauli NP.

### **Declaration of the Borjomi-Kharagauli National Park**

The Borjomi-Kharagauli NP legally was established by the Decree #447 of the Cabinet of Ministers of the Republic of Georgia of July 28, 1995 “On Promoting Measures for the Creation of the System of Protected Areas and the Establishment of the Borjomi-Kharagauli National Park”. According to this decree (article 3) the Borjomi-Kharagauli NP includes 50,400 ha within the boundaries of Kharagauli, Borjomi, Akhaltsikhe and Khashuri districts. Because of technical mistake Bagdati district was not mentioned in the article 3 of the decree - despite the fact that lands of Bagdati district were covered as the NP lands by the management plan, which also had been approved by the decree (article 6).

It is noteworthy that at the time of approval of the BKNP management plan (1995) the “Law on the System of Protected Areas of 1996” did not exist. As a result the first management plan does not fully comply with the requirements of the Law on the System of Protected Areas of 1996. The first management plan of the Borjomi-Kharagauli National Park was elaborated for a 6-year period expiring in 2001.

Subsequent to the establishment of the BKNP and thanks to the Georgian-German cooperation regarding the development of the park and interventions in its support zone the park has been expanding in size in accordance with District Government rulings:

- Resolution #53 of the Kharagauli District Council of November 5, 2001 “On the Approval of the Demarcation Act for the Lands of the Borjomi-Kharagauli National Park within the Administrative Boundaries of the Kharagauli District“ - (published in the Official Gazette of the Kharagauli District “Chemi Kharagauli”, November 12, 2001, Volume # 11/72/).
- The Resolution #210 of the Borjomi District Council of February 20, 2002 “On the Approval of Demarcation Act for the Lands of the Borjomi-Kharagauli National Park within the Administrative Boundaries of the Borjomi District“ - (published in the Official Gazette of the Borjomi District “Borjomi”, February 27, 2002, Volume # 10/8102/).
- The Resolution #22/7 of the Akhaltsikhe District Council of April 3, 2002 “On the Approval of the Demarcation Act for the Lands of the Borjomi-Kharagauli National Park within the Administrative Boundaries of the Akhaltsikhe District“ - (published

in the Official Gazette of the Akhaltsikhe District “Akhaltsikhe”, April 11, 2002, Volume # 5-6/142-143/).

- The Resolution #30 of the Bagdati District Council of January 9, 2002 “On the Approval of the Demarcation Act for the Lands of the Borjomi-Kharagauli National Park within the Administrative Boundaries of the Bagdati District“ - (published in the Official Gazette of the Bagdati District “Akhali Bagdati”, January 18, 2002, Volume # 2/132/).
- The Resolution #22 of the Khashuri District Council of February 22, 2002 “On the Approval of the Demarcation Act for the Lands of the Borjomi-Kharagauli National Park within the Administrative Boundaries of the Khashuri District“ - (published in the Official Gazette of the Khashuri District “Khashuris Moambe”, March 1, 2002, Volume # 9/7699/).

The boundary demarcation process of the BKNP was associated with boundary dispute conflicts which meanwhile have been resolved in favor of private landowners, resulting in a minor reduction of the overall size of the BKNP.

In 2001 according to the “Law on the Enlargement of the Territory of the Borjomi-Kharagauli National Park” 10 846 ha were added to the BKNP as part of the Adigeni district. Subsequently, the corresponding boundary demarcation was regulated through:

- Resolution #78 of the Adigeni District Council of February 11, 2002 “On the Approval of the Demarcation Act for the Lands of the Borjomi-Kharagauli National Park within the Administrative Boundaries of the Adigeni District“ (published in the Official Gazette of the Adigeni District “Ganakhlebuli Meskheti”, February 20, 2002, Volume # 1/7838).

As of today the BKNP encompasses an area of 57 963 ha in the Districts of Kharagauli, Borjomi, Akhaltsikhe, Adigeni Khashuri and Bagdati.

### **1.3.2 Boundaries**

This chapter describes the approved and legislated boundaries of the Borjomi-Kharagauli National Park by major reference points. A more detailed description is provided in Annex 2. Figure 1 shows the polygon and reference points used in the following boundary description of the BKNP.

Beginning to the North of the BKNP headquarters (reference point 53) the park boundary proceeds parallel to the Baniskhevi River (reference point 71), crossing its upper watersheds to the east passing the villages of Rveli, the park entrance at the village of Zanavi (reference point 111) from where it leads to Akhaldaba (reference point 142). From here the boundary proceeds in northerly direction passing the villages of Tashiskari, Kviskheti (reference point 171) from where it proceeds in north-westerly direction to the village of Zvare (reference point 183). From Zvare the boundary by-passes Chrdili

following the tributary of the Chkherimela River to the park entrance at Nunisi (reference point 186). From here it proceeds to the north-west by-passing the village of Vakhani (reference point 205) from where it runs parallel to the actual land use/pastoral line which separates the park forests from the villages of Vakhani to Marelisi (reference point 224). At Marelisi there is another entrance gate. From here the boundary proceeds in westerly

**Figure 1. Boundary Reference Points of the Borjomi-Kharagauli National Park**

direction passing Vani village to the South (reference point 224) crossing large tracts of pure stands of forests (reference points 233, 238 and 244) which all are free of settlements and land use . From here it continues in south-westerly direction for approximately 25 km where it reaches the alpine grasslands of the Meghruki Mountain Range (reference point 248). From here it follows the ridgeline of the high mountains in westerly direction, crossing the peak of the Didmagala Mountain (reference point 256). From the peak the boundary runs along the ridgeline in southerly direction for another approximately 10 km (reference point 262). From here it intersects the watershed of the Barat-Khevi River passing the city of Abastumani which is located inside the park. Another park entrance is located at the point where the boundary intersects the Barat-Khevi River (reference point 268).

From the park entrance (reference point 268) the boundary proceeds in north-easterly direction crossing the foothill forests of the Nasabajvari Mountain Range (reference point 270). From here it proceeds along the ridge-line to the East crossing the watersheds of the Tsinubnistskali River (reference point 275) swinging to the South until it reaches the park entrance at Atskhuri (reference point 290). From here it follows the northern edge of the Mtkvari River Flood Plain (reference point 290). It then passes the villages of Kvabiskhevi (reference point 12), Dviri, Chitakhevi, crossing the Chitakhevi River (reference point 17), passing the village of Chobiskhevi and reaching another park entrance at Likani (reference point 34). From here the boundary leads back to the Borjomi Headquarters where another entrance is located.

## **1.4 BIOPHYSICAL FRAMEWORK OF THE BORJOMI-KHARAGAULI NATIONAL PARK**

### **1.4.1 Geology, Relief and Soils**

The Borjomi-Kharagauli Region is mostly composed of Tertiary sediments (clay, marl, sandstone) and Quaternary volcanic bedrock (andesite, basalt, dolerite). The main orographical features are the Ajara-Imereti mountain range to the east and the Trialeti range to the west. The highest peak is the Shavnabada (2920 m). Several other mountains exceed 2500 m. The relief is diverse and typified by deep gorges and canyons, volcanic plateaus and petrified lava flows. Noteworthy for the geomorphology of the region is the Tetrobi-Chobareti range, which is formed by Upper Cretaceous limestone and the two pronounced synclines of the Ktsia River and Tabatskuri Lake.

The national park area differs little from the region. Most of the area is composed of the same Tertiary sediments and Quaternary volcanic bedrock as described for the region. The highest peak is the Sametskhvareo with 2642 m. There are several other peaks above 2500 m in the park. The relief is dominated by steep gorges and valleys with numerous waterfalls. The high elevation center part is typified by extensive sub-alpine and alpine meadows.

Most of the area is typified by brown forest soils developed under conifer and broadleaf forests. The mountain meadow soil variations (mountain-meadow peat, mountain-meadow close-turf; mountain-meadow loose-turf, mountain-meadow black earth etc.) are characteristic for sub-alpine and alpine grassland areas. These types are common to the highlands above 2000 m. Mountain peat soils have developed under carpets of *Rhododendron caucasicum*. The rare soil type 'mountain black earth' is found on the steppe areas of the volcanic plateaus. Other soil types known for the region are alluvial soils on river floodplains and rendzina on limestone mountains.

#### **1.4.2 Climate**

The wide climatic range typifying the region is caused by the altitudinal variation of more than 1500 m and its geographic position between three distinct climatic zones: (a) humid Colchic, (b) mesic Central Caucasian and (c) dry continental Caucasian. The mean annual precipitation in the Ajara-Imereti range is 1200-1400 mm, whereas in the eastern part of the region it hardly exceeds 600 mm. Similar variations are noted in mean temperatures. The mean temperatures in the area of Tabatskuri lake (2000 m) for January is  $-10^{\circ}$  C, the July value  $13^{\circ}$  C. Mean temperatures for Borjomi are  $-3^{\circ}$  C in January and  $19^{\circ}$  C in July. The greater part of the region is characterized by a moderately humid climate with cold snowy winters and long cool summers. The numerous gorges in the region which are covered by mostly climax conifer forests create local climates which have made the area world-famous as a health spa.

The park area is dominated by typical mountain climate with cold high snowfall winters and long warm summers. In lower zones between 450-1100 m summer duration is 3,5 months, in the upper zones above 1500 m only 2 months. In lower elevations maximum summer temperatures reach  $36^{\circ}$  C and minimum temperatures  $9^{\circ}$  Centigrade. The annual precipitation varies by elevation from 550 to 800 mm. In the lower areas the snow cover lasts 70-80 days per year; on mid-slope 110-155 days and in high elevation areas 150-155 days per year. Dry highland climate with cold winters and long cool summers is typical for the watersheds of the Ajara-Imereti and Trialeti ranges (1800-2100 m). The warmest month is August.

#### **1.4.3 Hydrology**

River Mtkvari is the most prominent water course in the region. It is the longest river in the Caucasus and a very important water catchment area for waters drained into the Caspian Sea. The numerous tributaries originating from the Lesser Caucasus have carved deep gorges and canyons into the landscape of the region. The creeks and streams draining the northern slope of the Ajara-Imereti range are part of the catchment basin of the Black Sea. The largest lake of the region is the Tabatskuri with a surface area of  $14,2 \text{ km}^2$  and a depth of 40,2 m. It is situated at an elevation of 1990 m. The volcanic plateau of Dabadzveli is typified by the Dabadzveli, Kakhisi and Tsero lakes, all located above 1700

m. Noteworthy are the Nariani marshes (2050-2080 m) which are of special ecological importance due to the rarity of high elevation marshland in the Caucasus.

More than 30 springs of mineral water are found in the region. The springs of Zvare, Mitarbi and Nunisi are famed because of their medicinal qualities. The famous Borjomi mineral water has been bottled and internationally marketed since 1891.

The most important river in the park is river Mtkvari. Its numerous tributaries such as the streams and creeks Baniskhevi, Kvabiskhevi, Sakariasgele, Likanisgele, Zoretistskali and Bagebisgele have cut deep gorges and are the cause for the predominantly precipitous terrain in the park. The northern slope of the Ajara-Imereti range is drained into the Rioni River via the main tributaries Sakraula, Jijaura, Legvani, Vakhani, Zvarula and Abanosgele. All of the park area is rich in mineral- and fresh water springs of which more than 20 are well known and three are being used commercially: Borjomi, Zvare and Mitarbi.

#### 1.4.4 Vegetation

The large diversity in plant species and plant communities in the region is caused by the three biogeographic regions converging in the area: Colkhic and Eastern Caucasian, Small Asian (Anatolian) and Front Asian (Iranian). Here Tertiary Colkhic relics and endemics (*Rhododendron ponticum*, *Laurocerasus officinalis*, *Staphylea colchica*, etc.) are found, as well as rare representatives of flora typical for the south of the country (*Celtis caucasica*, *Papaver pseudoorientalis*, etc.). *Gladiolus dzavacheticus* and *Corydallis erdelii* are typical endemic species for the area. The flora of the region includes over 2000 flowering plants.

The most important ecosystems of the region are forests covering 75% of the area. The region is known for the greatest concentration in the Caucasus of pure natural stands of spruce (*Picea orientalis*) and pine (*Pinus kochiana*). Typical forest formations with key tree species in a vertical transition are: oak (*Quercus iberica*) from 1000-1100 m; beech (*Fagus orientalis*) between 1000-1400 m; mixed with Caucasian fir (*Abies nordmanniana*) from 1400-1800 m; subalpine ash-birch forests (*Betula litwinowii*, *Sorbus caucasigena*) from 1800-2400 m and alpine grasslands above 2400 m.

Borjomi-Kharagauli National Park is famous for its forests. Key tree species in forest ecosystems in a vertical transition are: hornbeam-oak (*Quercus iberica*) between 450-1800m; beech (*Fagus orientalis*) between 1000-1200 m; pine (*Pinus kochiana*) and fir (*Picea orientalis* from 1000-1400 m mixed); *Abies nordmanniana* typifies forests between 1400 to 1800 m. Species still known to occur and listed in the Red Data Book of Georgia are: hornbeam (*Ostrya carpinifolia*), nettle tree (*Celtis caucasica*), wild pear (*Pyrus georgica*, *P. salicifolia*), bladder-nut (*Staphylea pinnata*, *S. colchica*), chestnut (*Castanea sativa*) and oriental oak (*Quercus macranthera*). The subalpine belt between 1800 and

2400 m is characterized by subalpine Birch -Krummholz forests (*Betula litwinowii*), thickets of rhododendron (*Rhododendron caucasicum*) and grasslands.

#### **1.4.5 Fauna**

For the region 55 mammal species, 95 bird species, 17 reptile species and 9 amphibian species have been identified. Prominent species include lynx (*Lynx lynx*), brown bear (*Ursus arctos*), wolf (*Canis lupus*), Caucasian deer (*Cervus elaphus maral*), chamois (*Rupicapra rupicapra*), roe deer (*Capreolus capreolus*), wild boar (*Sus scrofa*), golden eagle (*Aquila chrysaetos*) and the Caucasian black grouse (*Tetrao mlokosiewiczii*). The area of Ktsia-Tabatskuri is rich in waterfowl species. Species of special interest are the grey crane (*Grus grus*), black stork (*Ciconia nigra*) and the velvet scoter (*Melanitta fusca*). Trout (*Salmo fario*) are common in most creeks and rivers in the region.

Numerous species reported for the region are listed in Georgia's Red Data Book. They include: lynx, Caucasian deer, eagle, black grouse, several bat species (i.e. *Rhinolophus hipposideros*, *Myotis emarginatus*, *Barbastella barbastellus*), Eurasian otter (*Lutra lutra meridionalis*), Caucasian viper (*Vipera kaznakovi*) and Transcaucasian sand vipers (*V. ammodytes transcaucasiana*), Caucasian parsley frog (*Pelodytes caucasicus*) and the Caucasian salamander (*Mertensiella caucasica*). Of these species the chamois, the three bat species, five rodent species, the Caucasian black grouse and the Caucasian viper are listed in IUCN's Red Data List.

The fauna of the BKNP differs little from the fauna described for the region. The National Park provides the most important refuge to the fauna in the region. The park area still sustains healthy populations of most ungulates and birds typical for the Central Lesser Caucasus. Lynx, brown bear and wolf are still reported from the park. It is hoped that with proper protection some of the species listed in the Red Data book will recover in the park area.

### **1.5 SOCIO-ECONOMIC AND CULTURAL FRAMEWORK**

#### **1.5.1 Population Distribution**

The region (support zone of Borjomi-Kharagauli National Park) is composed of the six districts of Akhaltsikhe, Bagdati, Kharagauli, Adigeni, Khashuri and Borjomi. The total population is 225 700 or 4.2% of the population of Georgia. Close to 32 % of the support zone people live in the Khashuri District, 24 % in the Akhaltsikhe, 18 % in the Borjomi district, 14 % in the Bagdati District and 12 % in the Kharagauli District. The current trend in the region is a distinct movement from the rural areas to cities. The Kharagauli District is the least densely populated of the five districts (50 persons/km<sup>2</sup> compared to the country's average of 78 persons/km<sup>2</sup>). Compared to the other regions: Khashuri 120

persons/km<sup>2</sup>, Akhaltsikhe 54 persons /km<sup>2</sup>, Bagdati 37 persons km<sup>2</sup> and Borjomi 34 persons/km<sup>2</sup> (Map 2 shows the District boundaries).

The region is composed of 264 villages, 6 settlements and 5 townships. The average size of a village is 430 people. Many small and mid-sized villages are located in the Kharagauli and Khashuri districts, mostly nestled in narrow river gorges with poorly developed social infrastructure and little opportunity for infrastructure improvement. Opportunities are much better for communities located along highways and the railway line.

### **1.5.2 Actual Land and Resource Use**

The economic structure within the region is quite diverse. The main economy of the Borjomi District historically has been tourism. Since Georgia's independence the tourism industry has dropped to an all time low, dramatically affecting the local economy. The once well developed mining sector in several of the districts, which in the past contributed substantially to the local economy, is practically dead. Major investments are needed to revitalize abandoned but potentially productive mines.

Most of the rural population in the region currently depends on subsistence agriculture and livestock, although the region is only marginally suited for conventional agriculture as a result of unfavorable terrain, poor quality soils and harsh climatic conditions. The most suitable land and resource use in the area would be forest management combined with specialized and "cottage-industry" type production of endemic agro-species for the international seed bank market.

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### **1.5.3 Agricultural Heritage**

Of special interest is the presence of species, which are the wild progeny of many of today's domestic agricultural species. Noteworthy are: the Caucasus soft wheat (*Tritium aestivum*), the 'Red bread' (*T. ferrugineum*), 'Dika' (*T. carthlicum*) and the two species of 'Javakhetian Dika' (*T. carthlicum* var. *rubiginosum* and var. *stramineum*); also found in the region are the wild form of barley (*Hordeum vulgare*, *H. distichum*), three subspecies of wild mountain rye (*Secale montanum*), millet (*Panicum miliaceum*), flax (*Linum usitatissimum*), two pea species (*Pisum sativum* and *Cicer arietinum*), lentil (*Lens culinaris*), several grape species (i.e. *Vitis vinifera*) and one apple species (*Malus domestica*). Several of these species are of special interest to agriculture and the area of bio-technology.

**Map 2. The Districts Related to the Borjomi-Kharagauli National Park**

#### **1.5.4 Cultural Heritage**

The Borjomi-Kharagauli National Park and support zone are located in Georgia's historically famous provinces of Tori, Argveti, and Samtskhe. The Borjomi gorge is part of the Tori province, which was created between the second and 4 th. centuries. The Gujareti and Sadgeri Gorges and the section of the River Mtkvari Gorge between the villages Dviri and Tashiskari are part of the same province. With over 200 cultural/historic monuments the region is of great international interest. Noteworthy are the Timotesubany Monastery, established between the 10 th. and 13 th. century, the Mtsvane Monastery, located in the Chitakhevi Gorge and the Church of the Holy Virgin from the 14 th. century, located in the vicinity of the village Kvabiskhevi; furthermore, the Monastery of the Holy Virgin from the 9 th. century in the vicinity of Likani village, the Nedzvi Monastery from the same time period located in the village Zeda Nedzvi, the Sakvirike Basilica established between the 9 th. and 10 th. century close to the village of Pviri; the abandoned 'Cyclopes' ancient settlements near village Boga dating back to the Pre-Christ period. The medieval castles of Petre in Borjomi, Tamari in Akhaldaba, Atskhuri and Gori; and last not least the medieval church of village Nunisi. Most of these monuments are in urgent need of rehabilitation.

The park itself is also rich in cultural-historic sites. They include the Cyclopes and castle from the first century, the Mtsvane Monastery from the second part of the 9 th century, the church of the Holy Virgin from the 9 th. century, located in the Chitakhevi Gorge; the church of the Holy Virgin in the vicinity of the village Likani, the medieval St. George Church close to the Baniskhevi village, the St. Nino Church, the medieval castles of Sali, Nua, Gogia close to Borjomi and the medieval castle of Lekori near the village Gurkeli.

**PART TWO**

**VISION, POLICES AND ZONATION**

## 2.1 VISION STATEMENT

The vision statement as proposed in the 1998 draft plan for the BKNP has not changed and will therefore be adopted for this management plan. The time frame for the vision horizon is the period until 2015. The vision provides the conceptual framework for the strategies to be adopted to meet the long-term goals and objectives of the BKNP as specified by the vision. It is essential that all strategies and activities proposed for the BKNP are cross-checked with the vision statement to make sure that they comply with the overall goals and objectives. The vision statement which has been prepared in close cooperation with key stakeholders reads as follows:

**By the year 2015 the Borjomi-Kharagauli National Park and its support zone will be known as an outstanding wilderness area which is successfully protected through cooperative management between support zone communities and the protected area management team. The protected area has enhanced the economic environment in the planning region and has contributed to rising living standards through an innovative job creation program based on sustainable land use development and environmentally friendly industry. The tourism sector has been well established, centered on the numerous natural and cultural/historic attractions in the region. The Borjomi-Kharagauli planning region has become a model for progressive land use planning and sustainable development in Georgia.**

## 2.2 GOALS AND OBJECTIVES

The overriding objective is to maintain the current wilderness character of the BKNP and to manage it as a globally important conservation area within the framework of minimum management intervention whilst ensuring the maintenance and natural evolution of ecosystem structure and function.

Based on the vision statement, following major goals and objectives are identified:

### **Goal 1: Sustainable protection of the park's biodiversity and ecological integrity.**

This will be achieved through:

- zoning the park into different use areas;
- the design and implementation of meaningful management programs detailed in this officially approved management plan;
- the implementation of the management plan by a well trained and equipped management team in close cooperation with the support zone communities;

- a clear definition and delimitation of the park boundaries;
- continuing support to and cooperation with support zone communities in order to achieve a harmonic and environmentally compatible support zone development.

**Goal 2: Commitment by the Government (all levels), support zone communities and park users to the harmonic development and protection of the BKNP according to this management plan.**

This will be achieved through:

- convincing the GoG on the federal, district and local level about the importance of the BKNP for the development process of the region and the country at large;
- proving to the support zone communities that the BKNP provides direct and indirect benefits to them;
- compliance by users of the park's traditional grazing areas with the stipulations detailed in the range management plan that forms an integral part of this management plan.

**Goal 3: The economic development of the region and the support zone is enhanced through the existence of the BKNP.**

This will be achieved through:

- assisting support zone communities in their economic advancement compatible with the park's conservation objectives;
- equitable flow of benefits through equity sharing in tourism development and operations, human resource development and capacity building, improved natural resource management, protection of high quality drinking water etc.;
- promoting inter-ministerial and international donor support for the benefit of regional development.

**Goal 4: Convert the BKNP and its support zone into a well known tourist destination without threatening its ecological integrity.**

This will be achieved through:

- the elaboration of a well designed, targeted, marketed and implemented responsible visitor program that makes full use of the cultural, educational and recreational opportunities offered through the park and the support zone as an outstanding wilderness area;
- the development of a visitor infrastructure inside and outside the BKNP that complies with the overall conservation objectives of the park but also meets international standards;

- the assistance to support zone communities in the establishment of tourism facilities and operations as part of the regional tourism development plan and assistance in providing corresponding training.

**Goal 5: Financial sustainability of the BKNP.**

This will be achieved through:

- the elaboration and implementation of a well designed business plan that makes full use of revenue generating opportunities by the park, Government commitment and the establishment of an endowment fund that will assist in covering potential shortfalls of the park’s operational budget;

**Goal 6: The BKNP and its support zone serve as a model for Georgia’s protected area system.**

This will be achieved through:

- hands-on training of personnel from other protected areas in the country;
- participation of park personnel in the elaboration of management plans for other protected areas to be based on the BKNP experience;
- managing and developing the BKNP in the interest of the people of Georgia, both with respect to Biodiversity Conservation and with respect to making a contribution to the sustainable socio-economic development of the region and the country.
- wide distribution of this management plan for learning purposes.

**2.3 ZONING THE BORJOMI-KHARAGAULI NATIONAL PARK**

**2.3.1 Purpose of Zoning**

Zoning is a management tool that divides the Park into different use areas (zones) where different types and scale of development are allowed and where the levels of resource use and conservation inputs that may be required vary. Zones are determined by landscapes and ecosystem features, the Park’s vision and objectives, as well as its socio-economic environment and other external factors. The zoning concept should be flexible, to reflect the requirements for an adaptive form of management.

Different landscapes (and ecosystems) may lend themselves to different land uses and each landscape varies in its capacity to fulfill and accept the demand for a particular activity. Land uses may also be mutually incompatible: some effectively reducing the quality of experience associated with others. This friction must be managed. As the impacts of

activities are considered in the zoning phase of planning, the intention is to minimize their potential and likely environmental impacts during this phase.

Zone boundaries may be determined by biophysical characteristics, by administrative requirements or even by external factors. Depending on the nature and purpose of the zone, the most suitable boundaries should be selected to meet the objectives of creating that zone. In this context it is emphasized that zone boundaries are neither legally defined nor legally binding, as they serve internal management purposes only. Park Management may change zone boundaries as required. For example, the proposed recuperation zone may be converted into a different category once the recuperation process is completed satisfactorily. The traditional use zone may be converted into a different zone, once the traditional use ceases to exist.

In contrast to zone boundaries, the perimeter boundaries of the National Park and the boundaries of the Strict Nature Reserve as integral part of the BKNP, are legally defined and cannot be changed without Parliament approval.

The BKNP is divided into zones to guide tourism development, traditional grazing of sub-alpine meadows, and other park use. The Park administration recognizes that most park operations are “zone-specific”, but extend across the protected area. There are zones for which actions are specifically prescribed, in order to protect important and sensible resources. Some zones will indicate to the BKNP manager the general suitability of the area for certain developments, but not rigidly prescribe what may and may not occur. Zoning provides a geographical basis for prioritizing developments within the park, such as resources may be allocated to the high priority areas, followed by developments within lower priority areas when appropriate. On this basis the zones for the BKNP were designed (Map 3). They are adapted to local socio-economic and traditional cultural needs and conditions and truly recognize the wilderness character of this park.

The Georgian legislation pertaining to a national park subscribes to the IUCN category, its definition and stipulations. According to IUCN guidelines, a national park does not permit extractive resource use. Logging and mining are therefore not permitted. The six zone categories chosen for the BKNP are the: (a) Core Zone, (b) Visitor Zone, (c) Traditional Use Zone, (c) Recuperation Zone, (d) Managed Nature Zone and (e) the Support Zone.

**Map 3. Zoning of the Borjomi-Kharagauli National Park**

## **2.3.2 Zone Categories**

### **2.3.2.1 Core Zone (Strict Nature Reserve)**

#### **Rationale and Objectives**

The core zone (s) of a national park protects ecologically sensitive ecosystems or parts thereof which preferably should not have been modified by man. Core zones have to include representative samples of ecosystems typical for the park. Overall objectives for this zone are the protection and maintenance of biological diversity and natural landscapes, scientific research, environmental monitoring and environmental education.

#### **Policies and Management Guidelines**

- The core zone(s) should be exempt from active management;
- the use of this zone is confined to law enforcement activities, strictly controlled research, and educational activities;
- research activities are only permitted under special permits;
- no permanent research facilities should be established in this zone;
- research should respect the ecological integrity of the core zone;
- live capture of animals will be allowed under exceptional circumstances and with special approval by the park's board only;
- copies of research results (raw and processed data) must be provided to the BKNP research coordinator on completion of the study;
- the core zone may share borders with any other zone except for the support zone ("buffer" needed between the support zone and the core area).

#### **Description**

The core area designated for Borjomi National Park covers a total of 14 848 ha which constitutes the larger part of the Strict Nature Reserve. The area meets all stipulated requirements. It is composed of ecosystems typical for the park area and has not been subject to any extractive use since its early establishment. Forced by the harsh economic conditions in the region following the country's independence, some encroachment has occurred along the southern boundary of the Strict Nature Reserve, mostly for firewood collection, livestock grazing and poaching. A boundary adjustment may be considered that would exclude the small belt impacted by the illegal activities. It may safely be assumed, however, that these illegal activities will phase out over time with improving living conditions in the support zone.

### **2.3.2.2 Visitor Zone**

#### **Rationale and Objectives**

The visitor zone is established for the benefit of tourists. This zone should be free of conflicts, preferably little modified through man-made activities and should include samples of the most representative ecosystems in the park to provide added educational opportunities. Since this zone is established for the benefit of park visitors it should include sites of special interest and special attraction, ranging from the wide spectrum of different landscapes, view-scapes and scenic features, to special features such as historic cultural sites and sites of recognized recreational value.

#### **Policies and Management Guidelines**

- Visitor infrastructure should be practical, unobtrusive, rustic (in order to comply with the wilderness experience) and easy to control;
- ecologically sensitive areas within this zone should be closed to the public;
- visitor access should be confined to marked trails and other infrastructure designated to the visitors;
- visitors have to comply with the rules of conduct and the park rules which are specified in the visitor information package provided to each park visitor;
- tour guides and operators have to comply with the rules and regulations spelled out in the special “Memoranda of Understanding” and contract agreements with the park;
- special norms apply to the use of horses (the norms are specified in the agreements with the horse operators);
- all visitor activities are subject to monitoring.

#### **Description**

The designated visitor zone in the BKNP covers the greater part of the park in order to maximize recreational and educational opportunities. This seems of special importance in the light of the total access closure that has formerly precluded any public access from the Borjomi Strict Nature Reserve.

### **2.3.2.3 Traditional Use Zone**

#### **Rationale and Objectives**

The IUCN stipulations for a national park allow certain traditional low impact use which can be controlled easily. ‘Traditional’ is defined as ‘historic use’ having taken place well before the legal creation of the park. Such use is generally carried out by park neighbors who have lived with and depended on these lands sometimes for centuries without visible impacts.

Traditional uses may be sustained by protected areas as long as the use can be controlled and does not cause adverse impacts on the ecological integrity of the protected area.

Adverse impacts as a result of historic use frequently occur after a breakdown in traditional socio-cultural and socio-economic structures such as in the case of the BKNP. Under these circumstances a continuation of the traditional use may only be justified if: (a) a total ban on such uses would cause undue economic hardships to the people, (b) the traditional use can be re-established without causing environmental damage, and (c) no acceptable alternatives can be found outside the park area.

Grazing sub-alpine meadows by livestock from spring to fall has taken place in the high elevation meadows of the BKNP for centuries. Livestock grazing inside the park provides the livelihood to numerous families located in the park's support zone. Grazing is concentrated on the high elevation meadows (up to 2500 m) in the Mount Sametskhvareo area which also provides prime habitat to native ungulates and their predators. Grazing pressure on these areas has dramatically increased in the past decade going hand-in-hand with an increasing number of livestock. This has led to severe localized overgrazing that has resulted in visible erosion and unknown impacts on plant species composition typifying the fragile sub-alpine and alpine flora. The impacts as caused through competitive exclusion of wildlife by livestock are unknown.

Since livestock grazing in the BKNP is considered a traditional activity, it was decided to create a special "traditional use zone" to accommodate the continuation of this use under strictly controlled conditions.

The key objectives for this zone are: (a) facilitation of traditional use of sub-alpine meadows by livestock during the summer season; (b) re-habilitation of degraded grasslands; (c) management of the sub-alpine grasslands in accordance with a range management plan elaborated for this purpose; (d) to permit controlled tourism for a cultural experience with traditional ways of life.

### **Policies and Management Guidelines**

- Livestock grazing is permitted under special permit in the designated zone;
- permits are issued by the park;
- the permits specify the rules, regulations and conditions which apply to a specific permit and permit holder;
- grazing will only be permitted in accordance with the management guidelines specified in the range management plan elaborated for the range blocks in the BKNP (subject to monitoring);
- this traditional use will be phased out as soon as suitable alternatives are found;
- grazing will be strictly controlled by park rangers;
- fencing of alpine meadows may be permissible if stipulated by the range management plan;
- fire-wood collection by herders will be permitted only under permits issued by the park (subject to monitoring);

- special restrictions apply to herd size and the total number of livestock, grazing intensity and the access corridors used for taking animals in and out of the traditional use zone (subject to monitoring);
- active erosion control is permitted (subject to monitoring);
- the use of dogs inside the park by the herders should be strictly controlled;
- any structures put up by herders on sub-alpine ranges are subject to permits;
- the use of artificial fertilizers, pesticides and introduction of agronomic alien grass/ herb or any other plant species is not permitted.

### **Description**

This zone covers all of the BKNP's approximately 9 260 ha of sub-alpine/alpine grasslands from 1800 to 264 m elevation. The perimeter boundaries of this zone follow the tree-line.

#### **2.3.2.4 Managed Nature Zone**

##### **Rationale and Objectives**

This zone is an area of important resource use, cultural, or spiritual significance where the harmonious interaction between nature, non-commercial resource use and cultural or spiritual activities would be encouraged through the continuation of traditional activities, customs and beliefs, where these are in keeping with the objective of biodiversity conservation. The area would continue to contribute to the welfare of the local community through the provision of natural products and services without detriment to its overall long-term natural values and biodiversity.

The overall objectives for this zone are (a) the sustainable resource utilization by local communities, (b) cultural and spiritual practices, (c) scientific research, (d) preservation of species and genetic diversity, (e) maintenance of environmental services and (f) tourism and recreation.

##### **Policies and Management Guidelines**

- The key purpose of allowing the continuing but controlled collection of minor products in this zone is to assist the poor families of the support zone during the difficult transition process;
- permits will be issued by the park to needy applicants from the support zone for the collection of minor products (i.e., firewood, mushrooms, berries and other fruits and nuts, medicinal plants etc.), which specify the rules and regulations applied to the use permit (subject to monitoring);
- low impact logging in specially designated areas of formerly established artificial monocultures will be permitted according to strict rules and regulations specified in the corresponding permits issued by the park to qualified applicants (subject to monitoring);

- forest plantations (monocultures) will gradually be re-converted into the original site-specific forest types in accordance with a detailed rehabilitation plan (subject to monitoring);
- active interventions that enhance the recuperation process of degraded sites are permitted (subject to monitoring);
- low impact research is permitted.

### **Description**

The Managed Nature Zone occupies the larger area of the park. Its perimeter boundaries coincide mostly with the park boundaries. It covers an area of 27 132 ha.

### **2.3.2.5 Recuperation Zone**

#### **Rationale and Objectives**

Recuperation zones are set aside to facilitate the recuperation process of areas which have been modified through man-made activities resulting in ecological degradation. There is consensus that the recuperation process should preferably take place without human intervention in order to allow for successions to proceed naturally until the system stabilizes at a new climax stage. Active intervention should only be considered if absolutely required in order to halt erosion and to prevent further environmental degradation.

#### **Policies and Management Guidelines**

In the BKNP degraded areas with visible signs of erosion are mostly confined to the vicinity of Mount Lomi where alpine meadows have been severely damaged through overgrazing by livestock. Ideally, these areas need to be rested and closed to grazing in order to permit their recuperation. Since most of the degraded sites are found in the traditional use zone, they will be dealt with by the range management plan that specifically applies to these zones.

#### **Description**

No special recuperation zone has been designated for the BKNP. Areas in need of recuperation are either confined to the sub-alpine meadows that are subject to the range plan, or low elevation foothill forests which formerly have been subject to commercial timber production, mostly located within the Kharagauli Forest District. These areas will be subject to the management guidelines that apply to the “Managed Nature Zone”

### **2.3.2.6 Support Zone**

#### **Rationale and Objectives**

The rationale for the establishment of a support zone of a national park is to secure the support of park neighbors for the sustainable protection of the park. This becomes

possible through (a) economic support and assistance to park neighbors in recognition of sacrifices being made by giving up certain user rights for an area converted into a national park, and (b) through involving park neighbors in the planning and park management process. One of the stipulations for a support zone is that land and resource use have to be compatible with the conservation objectives for the national park and that the economic development of the support zone should be based on a well designed spatial land use plan.

The overall objectives for the establishment of a support zone are: (a) to gain the support of local people for the sustainable protection of the conservation area; (b) equity sharing through revenues generated by the park and the support zone from resources protected by the park (i.e., mineral water for commercial use); and (c) to make use of environmental education and awareness building opportunities inside the support zone.

### **Policies and Management Guidelines**

- To provide support zone communities with traditional use opportunities and collection permits for minor forest products inside the park;
- for the park staff to become involved in support zone activities and events that will foster a good working relationship built on trust and a continuing dialogue between the park and local authorities.

### **Description**

The support zone of the BKNP covers the six districts which share a common boundary with the park. These are: (a) Borjomi, (b) Akhaltsikhe, (c) Bagdati, (d) Kharagauli, (e) Khashuri and (f) Adigeni (see map 2). Population densities in the support zone are highest in the south-northern section (Borjomi district) and the Kharagauli region.

### **2.3.3 Summary Activity Matrix for the different Management Zones**

The following summary activity matrix (Table 1) lists the range of activities recommended by the Core Planning Team for the BKNP. The list of activities is based on identified current and potential uses. New uses may arise in the future and should be guided by the intent reflected in this matrix of activities. Three categories of activities are described:

- Permitted Activities: allowed under normal management guidelines and regulations.
- Restricted Activities: may be compatible under certain circumstances and stricter-than-normal management guidelines.
- Not Permitted: these activities are considered incompatible with the management objectives for the specific zone, or with the capability of the zone to sustain the activity.

**Table 1. Activity Matrix Proposed for the Borjomi-Kharagauli National Park Zones**

Activity List	Zone	Permitted	Restricted	Not Permitted	Explanation / Rationale for Restrictions or Special Management Requirements
Traditional grazing	TUZ Only		✓		Confined to designated zone under range management plan, subject to permit
Firewood collection	MNZ Only		✓		Subject to permit
Collection of native flowers, bulbs etc.	MNZ Only		✓		Subject to permit
Collection of minor forest products	MNZ Only	✓			
Bio-prospecting			✓		Subject to permit
Commercial resource use				✓	
Wildlife habitat enhancement EXCEPT CORE ZONE			✓		
Fishing				✓	
Research	All		✓		Subject to permit
Monitoring	All	✓			
Hunting				✓	
Live capture of wildlife				✓	
Species introduction				✓	
Species re-introduction	All		✓		Subject to feasibility study
Captive breeding				✓	
Wildlife enclosures				✓	
Non-mechanical recreation	VZ, MNZ		✓		Subject to permit
Primitive camping	VZ, MNZ		✓		Subject to permit
Serviced camping	VZ, MNZ		✓		Subject to permit
Tracking/ hiking	VZ, MNZ		✓		Subject to permit
Trail-riding	VZ, MNZ		✓		Subject to permit
Vehicle use	MNZ		✓		Subject to permit
Cultivation				✓	
Mineral exploration				✓	
Helicopter use			✓		Emergency Only
Fire management			✓		Under special circumstances
Pest management			✓		Under special circumstances
Recreational leaseholds				✓	
Commercial development				✓	
Utility corridors (transmission, pipeline)				✓	
Tourism infrastructure development	VZ		✓		According to infrastructure development plan
Road development			✓		For management/protection purposes only

CZ - Core Zone; VZ - Visitor Zone; TUZ - Traditional Use Zone;  
MNZ - Managed Nature Zone; SZ - Support Zone.

**PART THREE**

**MANAGEMENT GUIDELINES FOR OPERATIONS**

### 3.1 INTRODUCTION

The description of management activities designated to a specific “Management Program” makes the complex operations of protected areas easy to understand and facilitates the job of the senior management personnel (program coordinators). Management programs set the framework for the long-term management goals and objectives detailed in the vision statement. Management programs are particularly helpful for the preparation of annual work-plans and budgets and for assigning overall and program specific priorities. Because of their proven value to managers, management programs have become one of the most important structural elements of long-term operational plans which form an integral part of a general management plan for the category “National Park” worldwide.

Because of their usefulness to operations, the planning team for this management plan decided to organize the workload of the Borjomi-Kharagauli National Park by management program. The management programs and sub-programs used for this management plan are:

- **Administration Program**
  - Sub-program: Human Resources
  - Sub-Program: Accounting and Finance
  - Sub-Program: Maintenance
- **Protection Program**
- **Visitor Program**
- **Research and Monitoring Program**
- **Support Zone Program**

Although a management plan is the basis for the long-term planning horizon, a periodic revision is commonly done in five-year intervals. Revisions are necessary in order to periodically adjust the operational part of the management plan ( Part III Management Guidelines Operations and Part IV Business Plan) in response to changing realities and framework conditions. Periodic changes may be required in particular with respect to priority settings and strategies that are designed to meet the overall goals and objectives for the BKNP. In this light the planning team proposes to review the management plan after five years.

## **3.2 MANAGEMENT PROGRAMMES**

### **3.2.1 Administration Programme**

#### **National Park Administration**

The administration program of the BKNP covers three sub-programs dealing with the park's organizational structure, personnel requirements, personnel functions and responsibilities, training, infrastructure development and infrastructure maintenance, equipment purchase and accounting and finance.

The headquarters of the BKNP is located in Borjomi with a second administrative office in Kharagauli. The establishment of two administrative centers was partly a political and partly a pragmatic decision; political, in order to somehow compensate the Kharagauli District for its loss in terrain and user rights when the national park was created, pragmatic, because of the isolation of the northern sections of the park which are located too far from Borjomi for sound supervision and administration. Ideally, there should only be one central authority. With two offices working relatively independent from each other, authority and responsibilities of the two offices have to be clearly defined in order to avoid conflicts. Furthermore, two offices require a dual administrative structure in many areas, in particular finance and accounting and general office administration. This is rather costly and ill-afforded. It therefore is of critical importance, to somewhat split key management positions between the two offices, since financial constraints will not permit a complete dual administrative structure operating in parallel to each other.

The Borjomi headquarters accommodates the offices of the Park Director, the Coordinators of the Visitor Program, the Research and Monitoring Program, the Chief Ranger for the Strict Nature Reserve (used synonymously with "core zone" of the National Park) and the Coordinator of the Administration Program which includes the three Sub-Programs described above. Also attached to the Borjomi office is the communication and public relations officer. The Kharagauli center accommodates the Deputy Park Director and the Coordinators for the Support Zone Program and the Assistant Officer to the Chief of the Protection Program of the BKNP. Both offices have support staff as shown in the organizational chart (Figure 2). The Support Zone Program is directed from Kharagauli since the Kharagauli District and its constituents have been the most impacted through the creation of the park and still continue to depend on the park's resources for a living. It is in the Kharagauli District that most land use conflicts occur which justify to concentrate efforts on conflict resolution and assistance to these economically marginalized communities.

The organizational chart specifies the number of personnel needed for the management of the park at its current stage. The BKNP is headed by a Park Director and an Assistant Director. Both staff positions are linked to one secretary and one driver each. The five major management programs (Protection-, Visitor-, Research and Monitoring-, Support Zone- and Administration Program) are each headed by a Program Chief. All management

programs are on the same administrative level. The Program Chiefs report to the Park Director. The Chief of the Protection Program is responsible for the ranger corps, composed of two Section Rangers (nine senior- and 46 junior rangers. The Chief of the Visitor Program will have two assistants (One Environmental Education Officer in Borjomi and one assistant in Kharagauli) who will also assume responsibilities delegated from other programs as needed.

The Sub-programs Human Resources, Finance and Maintenance report to the Chief of the Administration Program. The Program Chief of the Administration Program will have a dual function, since he/she will be the head of one of the three Sub-programs, depending on his/her skills and qualifications. The Communication and Public Relations Officer reports to the Chief of the Support Zone Program. Staff of the Sub-programs and assistants to Chiefs of the Management Programs will be assigned as required.

The administrative structure of the BKNP follows a common staff line organization which facilitates reporting procedures. All Program Chiefs operate on the same administrative level and have the same reporting lines. The current organizational structure allows for easy and transparent expansion. Depending on the work volume of a program, additional positions can be added as required, still maintaining clear reporting lines and responsibilities. The total number of permanent staff for the BKNP at its current size and design should not exceed 75 persons at any time (plus seasonal labor). The proposed staff structure in this plan asks for 76 permanent employees including drivers and secretaries. Forty to 60 permanent well trained, motivated and equipped personnel for a National Park of 60 000 to 80 000 ha appears sufficient to implement the proposed management programs and protect the ecological integrity of the park's ecosystems. Since the BKNP however is still in its development stage and needs strict protection, the larger number of staff, mostly related to the protection program appears justified at this point in time. The total staff number may be reduced in the future once the situation has stabilized (i.e. improvement in the socio-economic framework conditions).

Although the management programs operate relatively independent from each other, cooperation is required in many areas. This applies to the protection program with cross-sectoral responsibilities, as well as to the visitor program, the support zone program and all others as needed. This inter-sectoral dependence requires continuing communication between the different programs and sub-programs. This may only be achieved through regularly scheduled staff meetings.

### **Staff Functions and Responsibilities**

In order to permit program-specific and inter-sectoral management without frictions, it is important to precisely describe staff functions and responsibilities for each senior position as follows.



**Park Director:** The principle functions and responsibilities of the Park Director are to officially represent the BKNP on all park and park/support zone related matters; to assume overall responsibility for park staff and management, to prepare and present consolidated annual budgets and work plans for the DPA and to generally lobby park matters.

- Requirements an academic degree, preferably in a resource management related field, sound experience in management of people and administration, skills in dealing with the public and proven leadership qualities and a minimum of eight years professional experience.

**Assistant Director:** The functions are in principle the same as specified for the Park Director. The Assistant Director is located in Kharagauli and reports to the Park Director.

- Requirements an academic degree in a resource management related field, basic management experience and a minimum of four years professional experience.

**Chief Administration Program:** The Chief of the Administration Program will assume the overall responsibility for the three Sub-programs Maintenance, Human Resources and Finance/Accounting.

- Requirements an academic degree, preferably in economics and administration, sound experience in the management of people and administration. This candidate should be familiar with Georgia's accounting procedures and legal requirements regarding tax laws etc. The person should have proven leadership qualities and sound experience in financial and budget planning for governmental institutions with a minimum of five years work experience.

**Head of Sub-program Human Resources:** The Head of this Sub-program will be responsible for the development of a staff code and procedure manual that describes all staff-related matters. The procedure manual will deal with recruitment procedures (job description, advertisement of a position, interviews and selection of suitable candidate), rate scale and allowances/incentives, equity questions, mandatory leave procedures, sick leave and compensation, grievance procedures, maternity leave, insurance matters, and many other aspects. The production of the BKNP procedure manual is of urgency. The responsibilities of this position cover all personnel of the BKNP. Responsibilities also include recruitment and compensation of seasonal and contractual labour. The Head of this Sub-program is responsible for the preparation of the annual budget for this Sub-program, office operations and the maintenance of proper archives related to human resources of the BKNP.

- Requirements academic degree or equivalent experience in a social science subject with proven experience and skills in all aspects of human resource management with a minimum of 6 years related work experience.

**Head of Sub-program Accounting and Finance:** The Head of this Sub-program is responsible for the overall park budget and all financial matters related to the BKNP. The incumbent will produce an accounting and bookkeeping procedure manual as a matter of urgency. The manual will detail procedures related to the overall budget (accounting and bookkeeping) and budget segments related to the Management Programs and Sub-programs, procurement of goods and services, taxes and contracts which all have to conform to requirements by the public service of the GoG. The Head of this Sub-program will be responsible for all work related to the BKNP that is out-sourced.

- *Requirements* academic degree or equivalent experience in bookkeeping, accounting and financial management with proven familiarity and background in all aspects of procurement and budgeting and the public tendering of contract labor with a minimum of 5 years experience.

**Bookkeeper within the Sub-program Finance and Accounting:** The Bookkeeper will assume full responsibility for the financial records of the park, recording expenses and income in a professional, commonly accepted manner. The person will work in close cooperation with the Head of the Sub-program and the Program Coordinators. The person will keep the financial records updated and will prepare the annual financial statements for the accountant and auditors.

- *Requirements* preferably a degree in business administration and finances; proven experience in bookkeeping of at least 4 years, computer literacy and familiarity with bookkeeping software is a requirement.

**Cashier within the Sub-program Accounting and Finance:** The Cashier will handle all cash funds for the park. He/she will be responsible for the payroll, payment of contract labor and all other activities requiring the handling of cash money.

- *Requirements* Good references and experience in this area of expertise.

**Chief Protection Program:** The principle functions and responsibilities of this person are: to prepare and oversee the implementation of annual work plans and budgets for the protection program; to assume overall responsibility for all protection related matters; to establish protocols and agreements for co-operation with other enforcement agencies; in close cooperation with the Human Resources Sub-program prepare job descriptions for ranger positions and the hiring of rangers; to assist in the preparation of training programs and the establishment of ranger beats; to coordinate activities with other management programs as needed. The Chief of this program will lead and manage all senior and junior staff under his command. The responsibilities include the establishment of an excellent working relationship with other enforcement agencies. The Chief will assume ultimate responsibility for the processing of violation reports filed by the rangers.

- *Requirements* sound law enforcement experience in matters related to natural resource management, preferably in context with protected areas; proven skills in public relations, people management and leadership.

**Park Ranger:** Most rangers currently employed by the BKNP have a forestry related background as former employees of the forestry districts which are now integrated into the park area. Special skills that may be required due to the expanded responsibilities of the park rangers, will be acquired through in-service training. Although the key functions and responsibilities of rangers will always be biodiversity protection and law enforcement, rangers will be closely tied into the other Management Programs. It is of critical importance for the rangers to establish a working relationship with the public that is built on trust.

- *Requirements* full literacy, physical fitness, loyalty, knowledge of the legal framework related to Georgia's protected areas, and preferably some previous working knowledge in law enforcement. Fresh recruits will receive all their training in-service.

**Chief Visitor Program:** The principle functions and responsibilities are: to assume overall responsibility for this program; to produce, in close cooperation with the Chiefs of the Environmental Education Program and the Research and Monitoring Program information materials such as brochures, fact sheets, the park's newspaper etc. for the benefit of park visitors; to enhance the visitor infrastructure and visitor programs; to set the fee structure for park visitors and operators and design a practical booking and fee collection system; to provide liaison services to tour operators and tourism related infrastructure and services in the support zone of the BKNP; to assist in the establishment of a tourism association in the region, the elaboration of a regional tourism development plan and the marketing of tourism opportunities offered by the BKNP and its support zone; to prepare and implement program specific annual work-plans and budgets; to assist in the in-service training of rangers entrusted with tasks related to the tourism program.

- *Requirements* academic degree and experience in business administration, preferably from the tourism sector; proven communication and public relation skills, writing skills, computer literacy and knowledge of the English language with a minimum of 5 years related work experience.

**Chief Research and Monitoring Program:** The principle functions and responsibilities are: to assume overall responsibility for the program; design practical research and monitoring program according to real needs; prepare ToR for contracts and supervise activities; to supervise the implementation of the traditional use program covering livestock grazing and range management and the collection of minor forest products; to assist in the assessment of pre-qualifications of applicants for collection and park user permits; store and process baseline data resulting from environmental

monitoring; provide suitable materials resulting from the program to other programs as needed; actively pursue cooperation opportunities with research institutions in Georgia and abroad and elaborate Letters of Understanding and/or Cooperation for research contracts accordingly.

- *Requirements* academic degree in a natural resource related field, experience in the management of range and wildlife. Computer skills are a required prerequisite as well as at least four years work experience in a related area.

**Chief Support Zone Program:** This position will fulfil a vital liaison function between the park and the support zone. In close co-operation with the district authorities, key stakeholders and the private sector, the Program Chief will assist in the development and implementation of projects associated with the park. The Program Chief will be responsible for the supervision of the Traditional Use Program (grazing) and will design and negotiate lease agreements and user permits for minor forest products. The Program Chief, in close cooperation with the Communications and Public relations Officer will design and implement a program that will benefit the park and the support zone communities; the Program Chief will develop a close working relationship with local NGOs and will facilitate negotiations regarding development projects impacting on the park. The Program Chief will assist in the training of rangers and will be responsible for the elaboration of annual work-plans and budgets for the Support Zone Program.

- *Requirements* academic background in business administration/ management and/or a resource related field; good writing skills and computer literacy; proven capability in dealing with people and the public with a minimum work experience of five years.

**Communication and Public Relation Officer:** The main functions and responsibilities for this position are: to assume overall responsibility for all activities related to the program; develop (help to implement) annual work plans and operational budgets in accordance with the management plan; in close co-operation with the other programs develop and produce educational and PR materials to be used in the support zone and for the visitor program; assist in the training of rangers; develop close working relationship with local NGOs; collaborate with WWF in the environmental education project for the support zone.

- *Requirements* academic background in environmental education or related field; high level of literacy; writing skills and word processing abilities, proven capability in dealing with people and the public are a requisite as is a minimum work experience of five years.

## **Infrastructure and Equipment for the BKNP Administration**

At this point in time the infrastructure and equipment needed for an efficient park management is in place thanks to the generous grant by the Government of Germany. The park infrastructure development was implemented between 1998 and 2003. This includes the park headquarters located on a large lot in the city bounds of Borjomi. It provides generous and fully rehabilitated office space, furnished and fully equipped for senior park staff. The same building houses a small natural history museum and VIP accommodations. The building and property are park owned and do not need further expansion and or upgrading. This also applies to the Kharagauli administrative Sub-Center which has been fully rehabilitated and equipped under the KfW sponsored program. It is fully operational and well functioning.

### **3.2.1.1 Sub-Program Human Resources**

The guiding principles for this Sub-program are:

- Striving for a vibrant and enthusiastic working spirit that will encourage a healthy working environment;
- compliance by all staff at all times with the BKNP Staff Code and Procedure Manual;
- equitable employment opportunities.

The objectives for the Sub-program are:

- to establish and maintain a transparent and equitable personnel management system;
- to ensure the promotion of optimal personal growth potential for each staff member;
- to foster a sense of belonging and to promote *esprit corps*;
- to provide appropriate training opportunities to staff members;
- to ensure that personal performance is focused towards the achievement of the objectives of the BKNP.

The organizational chart (Figure 2) specifies the number of personnel by position. It shows five management positions occupied by Program Chiefs who are all on the same grade scale. The Assistants to the Program Chiefs and the Heads of the three Sub-programs (i.e. Human Resources, Accounting and Finance, Maintenance) are level three management positions according to the park's grade scale. All rangers are grade level four. The positions of support staff are outside the official grading system and will be negotiated on an individual basis.

The Head of this Sub-program jointly with the other senior management staff will produce a Staff Code and Procedure Manual as a matter of urgency. Both documents have to comply with the norms, standards and procedures set by the GoG. Of equal importance is the elaboration of a grading scale (wage structure) to be implemented by the Head of the Sub-program jointly with the appropriate Government Institutions. The Procedure Manual

covers all aspects of human resource management which includes wage and benefit details, grading scale, recruitment and job evaluation procedures, details on compensation, grievance procedures, professional leave, communication, sick leave, maternity leave, career advancement and much more.

It is recognized that important elements for staff motivation are: (a) a clear job description for each position with clearly identified functions and responsibilities, (b) a well defined program for career development, and (c) attractive wages complemented through a sound fringe benefit package. It is the responsibility of the Head of the Sub-program to jointly with the staff member to elaborate a precise position description and discuss career development opportunities. Wages are subject to the rules and regulations of common rate scales used by the Government. Any deviation, including potential topping up has to be negotiated with the Government. It should be considered to design a performance based incentive system until official rates have reached acceptable levels.

As part of the career development, each staff member is entitled to training opportunities. Preference will be given to in-service training. Special skills which cannot be obtained through in-service training will be subject to external training. In-service training will apply to all staff members. Senior staff will be given the opportunity to periodically participate in career advancing and job-related seminars and programs. The training program will be tailored to the needs and availability of funding once per year. Training will be monitored and evaluated annually. Where a staff member cannot be adequately trained by means of in-service training program, full use will be made of external training facilities and opportunities wherever possible.

It will be the responsibility of the Head of this Sub-program to elaborate once per year, in close cooperation with the Park Director, and the senior park staff a detailed training schedule for all permanent personnel. The training program forms an integral part of the park's overall budget.

The Sub-program will also be responsible for the elaboration of contract forms and contract procedures regarding short-term consultants and contract labor. The terms of reference for the contracts will be supplied by the contracting Program Coordinator who will also be responsible for the supervision of work performance and quality control of the contracted labor.

**Priority Activities:**

**Elaboration of a Human Resources Procedure Manual**  
**Elaboration of a Staff Code**  
**Elaboration of a Wage Grading Scale**

### **3.2.1.2 Sub-Program Accounting and Finance**

In context of the BKNP, financial management and procurement will be seen as:

- the accurate recording of the financial activities of the park in accordance with commonly accepted accounting and book-keeping procedures (recording, control and planning);
- control over all financial aspects of the park;
- reporting on the operational activities of the park;
- recording and reporting on the assets and liabilities of the park;
- purchase of equipment and materials for all Management Programs as specified in the annual budget.

It is accepted that financial management aspects of the BKNP should be executed according to the accounting practices, as formulated by the accounting profession in Georgia and as commonly used by agencies of the GoG. The financial process will be subject to periodic auditing according to standard Government rules.

The objectives of financial management and procurement are:

- responsible book-keeping and financial accounting by management program;
- optimum and timely disbursement of finances within budget limits;
- efficient budget planning jointly with Program Chiefs;
- effective control over the financial aspects of the BKNP.

The Head of this Sub-program will be responsible for assembling the overall annual budget for the BKNP to be composed of the Program Budgets to be elaborated by the Program Chiefs once per year. The overall budget will then be reviewed by the Program Chiefs, the Park Director and his Deputy and revised according to the resulting consensus agreement by the senior staff. It will then be submitted to the DPA for approval. The overall budget will be divided into investment and operational sections to be supplemented through a detailed statement of expected income.

Once approved, the budget should be the guideline for all expenditures. The Head of the Procurement and Finance Sub-program and the Accountant (if different) will be responsible for the overall budget control. Each Program Chief will assume full responsibility for the control of the corresponding component budget.

The BKNP will follow a zero base budgeting system where all expenditures have to be motivated from scratch each year, instead of adjusting the previous year's figures to arrive at a new budget. This will force Program Coordinators into structured planning of work programs and activity schedules on a priority basis.

This Sub-program will also be responsible for the procurement of equipment and materials. All purchase requisitions have to be first approved by the Chief of the Program under which the requisition was prepared before submission to the Sub-program Finance and Accounting. The Sub-program will then cross-check the purchase requisition against

the budget to make sure that the requested item is part of that year's budget before final approval. Procurement has to follow common procurement procedures as described in the procedure manual. The Head of the Sub-program Accounting and Finance jointly with senior park staff will develop a Procedure Manual covering financial matters and procurement of equipment and materials on an urgency basis. This Procedure Manual will form then part of this management plan. It will provide guidance equally to budget preparation and park operations.

**Priority Activities:**

**Elaboration of a Procurement and Finance Procedure Manual**

### **3.2.1.3 Sub-Program Maintenance**

The guiding principles for this Sub-program are:

- The Sub-program Maintenance includes the planning, regular servicing, replacement, control and monitoring of all fixed structures, equipment, and other movable assets of the park;
- infrastructure and equipment management, including inspections and stock control, will be done in accordance with generally accepted norms, standards and practices, as prescribed in the Procedure Manual;
- preventive maintenance will be a key principle;
- Park personnel will do all standard maintenance work.

The objectives for the Sub-program are:

- Maintenance of the park's infrastructure and equipment in accordance with an annually updated maintenance schedule;
- to delegate responsibilities for specific infrastructure and maintenance components to individual staff members;
- to prevent mistreatment of infrastructure and equipment;
- to assure standardization of equipment in order to facilitate servicing and repairs;

This maintenance program will be implemented under guidance of the Head of this Sub-program (Maintenance Supervisor) in close collaboration with all park staff. The maintenance supervisor will develop a standardized maintenance schedule for the infrastructure and equipment of the park. In cooperation with the individual program Chiefs the maintenance tasks will be assigned either to specific staff positions or outsourced. All routine maintenance will be done by park staff. In order to optimize the operational life of equipment and infrastructure, the Maintenance Supervisor will assure high quality servicing and maintenance.

The Head of this Sub-program will produce annual work-plans and budgets for infrastructure and equipment maintenance and replacement. The budget will also include training costs for skill development which may be required by staff members in order to responsibly comply with the assigned tasks. This may include driving lessons and special training for equipment use as part of the preventive maintenance program. The Maintenance Supervisor will assure quality control of the work performed and will keep the maintenance records in good order. He/she will closely work with the Sub-program of Finance and Accounting concerning all budget questions and with the Protection Program with respect to in-house maintenance work. He/she will provide maintenance training to rangers and jointly with the Senior Rangers supervise the maintenance work carried out by rangers.

The key infrastructure and equipment that are subject to regular maintenance are listed in Table 2. Annex 3 provides an itemized and illustrated list of the Infrastructure Maintenance Program. Map 4 shows the location of the infrastructure of the BKNP.

In close collaboration with the Sub-programs Finance and Accounting and Human Resources, the Maintenance Supervisor will elaborate terms of reference for maintenance contracts that will be out-sourced. He/she will assume full responsibility for the quality control and supervision of the work performed by contractors. The Maintenance Supervisor will assure that all maintenance work is in compliance with environmental impact guidelines for the park and that there will be no interference of maintenance work with other programs, in particular the Visitor Program.

A special maintenance schedule will be developed for the visitor facilities in the park in order to make the park experience by visitors enjoyable and to assure visitor safety. This applies in particular to the trail system and shelters to be used by visitors. Special attention will be given to regular garbage removal from picnic and camping areas, visitor shelters inside the park and the park entrance areas.

The Maintenance Supervisor will assure the use of good quality materials and workmanship for all maintenance work. Furthermore, he/she will assure that maintenance work will not result in negative visual impacts.

**Priority Activity:**

**Elaboration of an itemized maintenance schedule for park infrastructure and equipment**

**Map 4. The Borjomi-Kharagauli National Park Infrastructure**

**Table 2. Key Infrastructure and Equipment Items of the Borjomi-Kharagauli National Park in Need of Regular Servicing**

Category and Item	Monitoring Frequency	Regular Maintenance	Park Staff	Out-sourced
<b>INFRASTRUCTURE</b>				
<b>1 Protection Program</b> 333 boundary posts 9 ranger shelters 20 permanent barriers 29 mobile barriers 10 ranger stations	once/year twice annually twice annually twice annually twice annually	as needed once/year as needed as needed annually	✓ ✓ ✓ ✓ ✓	
<b>2 Visitor Program</b> 6 entrance gates 185 km nature trails 3 km self-guided nature trail 4 tourist shelters 1 museum (at Borjomi headquarters) 1 visitor center (at Borjomi headquarters) 4 picnic areas Billboards and signs	twice/season twice/season 4times/season 4times/season weekly twice/week twice/week twice/season	Annually Annually Annually Annually Annually Annually Annually	✓ ✓ ✓ ✓ ✓ ✓ ✓	
<b>3 Research and Monitoring Program</b> 2 meteorological stations	once/week	Annually	✓	
<b>4 Support Zone Program</b> no infrastructure				
<b>5 Administration Program</b> headquarters Borjomi headquarters Kharagauli	Annually Annually	Annually Annually	✓ ✓	
<b>EQUIPMENT</b>				
<b>1 Protection Program</b> 19 radio systems 10 generators 11 vehicles 32 horses (shoeing, de-worming, fodder etc.) 32 horse gear sets	once/month once/month once/month as needed once/year	Annually Annually Annually Annually	✓ ✓ ✓ ✓	✓ ✓
<b>2 Visitor Program</b> 1 vehicle audio-visual and other electronic equipment	once/month once/year	Annually Annually		✓ ✓
<b>3 Research and Monitoring</b> 2 meteorological stations	twice/annually	Annually	✓	
<b>4 Support Zone program</b> audio-visual and other electronic equipment 1 vehicle	once/year once/month	Annually		✓ ✓
<b>5 Administration</b> all electronic equipment as follows: (11 computers, 3 printers, 5 printers, 2 copiers, 2 fax machines, 26 cellular phones, telephone network, 11 UPS, 2 LCD projectors, 3 overhead projectors, 2 slide projectors, 6 TV sets, 2 video-recorders, 2 video cameras, 11 cameras, 1 GPS, 10 electric generators, 19 radio stations)	once/year or on an as- needed basis	Annually		✓

### 3.2.2 Protection Program

The guiding principles and Objectives for this Program are:

- The effective protection of the ecological integrity of the Borjomi-Kharagauli National Park against the encroachment of people and their illicit activities, encroachment of livestock and the control of fire and diseases that threaten the integrity of the park;
- the sustainable protection of the BKNP will benefit biodiversity conservation, park users and park neighbors;
- sustainable protection will be achieved through the services of a well trained, equipped and highly motivated ranger corps in close cooperation with support zone communities;
- the implementation of a sound community outreach program will be a guiding principle for pro-active law enforcement.

The current control and enforcement activities are carried out under the supervision of the Chief of the Protection Program. He/she is assisted by nine section rangers who supervise the current ranger corps of 46. The park is divided into nine patrol sections, each headed by a Section Ranger. The sections have a total of 49 patrol routes (Map 5). The sections are briefly described as follows.

The **Abastumani Section** covers 10 846 ha of park area and 66 km of park boundary. It is controlled by six rangers under the supervision of the Section Ranger. Two ranger shelters (Nasabajvari and Makhvilo) are located in this section to be used by rangers during foul weather and when on overnight patrols. Other control points include three movable road barriers, 24 boundary demarcation posts, one tourist shelter (Didmagala), and visitor trail number 5 with a length of 31km (see map 6). The rangers control the area by horse and on foot. Six horses are allocated to this section and one vehicle that is mostly used by the Section Ranger. There are eight control routes.

The **Atskhuri Section** controls 13 825 ha and 41 km park boundary. This section has one ranger shelter (Tskalgakrili), five movable road barriers, two permanent access barriers, 39 boundary demarcation posts, one tourist shelter, and visitor trails 2 and 3. This section is served by five rangers supervised by the section ranger. There are five horses available for patrol and one vehicle. There are ten control routes.

The **Borjomi Strict Nature Reserve** covers 17 948 ha park area and controls 57 km of the park boundary from the Kvabiskhevi ranger station. There is a park access point at the ranger station. This section is bordered by a densely populated support zone encroaching on the park boundary. Private properties bordering the park cause numerous conflicts which requires special attention. The section houses three ranger shelters in strategic locations (Chitakhevi, Zoreti, Baniskhevi). Features that are subject to special control efforts are eleven movable road barriers, thirteen permanent road barriers, 82 boundary

**Map 5. Patrol Routes**

demarcation posts, one tourist shelter, visitor trail number 1 (41 km), trail number 6 with a length of 13 km and trail number 7 with a length of 3 km. This area is patrolled by nine rangers supervised by a Section Ranger. There are eight horses and one vehicle allocated to this section. There are eight control routes.

The **Zanavi section** controls 3 986 ha of park-land and 29 km of park boundary from the Zanavi ranger station. This section is also bordered by a densely settled support zone and therefore requires special control efforts. There is a park access point located at the ranger station. The section has one ranger shelter (Dedabera), five movable road barrier, one permanent road closure, 63 boundary demarcation posts and visitor trail number 4 with a length of 13 km. Four rangers with three horses and one Section Ranger with a vehicle patrol the section. There are 5 control routes.

The **Kvishkheti section** controls 1 720 ha park area and 20 km park boundary from the ranger station located at Kvishkheti. Again, this section is bordered by a densely populated area in the support zone and requires special control efforts. Special features in this section include three movable road barriers and three permanent road closures and 49 boundary demarcation posts. Four rangers with three horses, supervised by a Section Ranger with a vehicle patrol the section. There are three control routes.

The **Nunisi section** covers 6,068 ha and 32 km park boundary. It has one public access point located at the Nunisi ranger station. This section has one ranger shelter (Vakhani), one movable road barrier, one permanent road closure, 35 boundary demarcation posts and visitor trail number 4 with a length of 13 km. Five rangers and one Section Ranger are responsible for this district to which four horses and one vehicle are allocated. There are 4 control routes.

The **Marelisi section** controls 8 200 ha park area and 30 km of park boundary from the Marelisi ranger station which also controls the public access point. There are two ranger shelters (Qvazvinevi, Sametskhvareo) located in this section, one movable road barrier, 17 boundary demarcation posts, one meteorological station (at the ranger station), one tourist shelter (Didi Sakhvlari), and three visitor trails. Trail 1 with a length of 41 km crosses the park from Likani to Marelisi; trail number 2 with a length of 51 km leads from Marelisi via Amarati to Atskhuri 51 km; and trail number eight from Sakhvlari River via the Meghruki Gorge to Sakhvlari. The section is controlled by five rangers and one section ranger. Four horses and one vehicle are allocated to this section. There are 4 control routes.

The **Sakondria section** (ranger station) controls 6 648 ha of park land and 18 km park boundary. It has eleven boundary demarcation posts. This section is also bordered by a densely settled support zone area causing conflicts. Control efforts by the five rangers and the Section Ranger serving this section are accordingly high. Four horses and one vehicle have been allocated to this section which has four control routes.

**Map 6. Existing Tourism Infrastructure**

The **Lashuri section** controls 4 559 ha park land and 19 km park boundary from the ranger station Khani. It has thirteen demarcation posts. The section is controlled by three rangers and one Section Ranger to whom three horses and one vehicle have been allocated. This section has three control routes.

Thanks to the generous German bilateral funding the Protection Program enjoys an excellent infrastructure. The ranger corps is well equipped, fully mobile, and has radio-communication. To date the rangers are unarmed which will change in the future when rangers will be carrying handguns and carbines. The rangers are recognized by their uniforms. The rangers control a complete infrastructure which will require very little changes/enhancement in the future. The park boundaries are fully demarcated and all boundary disputes have been resolved. This facilitates long-term planning for the park protection. The Protection Program is fully operational and the entire park area and boundary is controlled on a regular basis according to assigned control routes. Still lacking is a ranger manual that should be produced as a matter of urgency by the Protection Program Chief in close collaboration with his Section Rangers.

Although the primary function of the rangers are security patrols with the objective of detecting and following up on any incursions into the park and illicit activities, rangers play a key role in representing the park to the public. Rangers are highly visible, can easily be recognized by their uniform, and therefore need to develop an excellent working relationship and communication with the people of the support zone. The rangers and their families are fully integrated into community life which provides an opportunity to develop a trusting relationship. Rangers will also actively participate in community outreach and the Environmental Education and Public Awareness activities. Rangers will play a critical role in dealing with special park users and license holders. Their behaviour has therefore to be beyond reproach.

Rangers will also take part in the park's environmental monitoring program and the gathering of ecological baseline data. Access control will be another critical function. Because of the importance of access control, it requires a direct management input through senior personnel. Staff manning the entrance gates must have a sound working knowledge of the park, should be highly efficient and professional with a high degree of loyalty and integrity. Rangers are the "showpiece" of the park and the image of the rangers is conveyed to all visitors by the individuals manning the park gates at any one time.

All infrastructure related to the Protection Program is in place except for one additional ranger shelter to be built between Atskhuri and Amarati ("Atskhuri Shelter").

**Priority Activity:**

**Elaboration of a Ranger Handbook**

**3.2.3 Visitor Program**

The guiding principles for this Program are:

- The Borjomi-Kharagauli National Park should become known as a prime “wilderness” area;
- the park should provide visitors with a wide range of recreational and educational opportunities without adversely affecting the ecological integrity of its ecosystems;
- visitor safety;
- tourism development in the park will be market-driven and involve the private sector;
- commercial concessions will be made available to the private sector by means of a transparent public tender process;
- activities will be based on the natural strengths and attributes of the BKNP (wilderness character);
- tourism development will concentrate on the support zone in order to maximize benefits to support zone communities;
- socio-economic benefits will be maximized by complementary developments and activities inside and outside the park that address a wide spectrum of interest and income groups.

The objectives of this Program are:

- To provide nature and culture based tourism and recreational opportunities within the park without negatively affecting the wilderness character of the BKNP;
- to provide visitor services inside the park of outstanding quality and compatible with international standards while observing the guiding principle of a wilderness experience;
- to actively pursue private sector involvement in the Visitor Program.
- to promote and facilitate Community Based Tourism initiatives in and around the park;
- to contribute to socio-economic development and sustainable job creation in the support zone of the BKNP through the visitor program;
- to generate revenues that can directly contribute to the maintenance and running costs of the park;
- to encourage tourism education, training, awareness and capacity building programs;
- to promote knowledge about the historical and cultural aspects of the people as well as the natural environment;
- to establish a monitoring and evaluation system aimed at ensuring the sustainability of tourism operations and maintaining the condition of visitor services and facilities within the park.

The existing BKNP infrastructure related to the Visitor Program is based on the recommendations by the first draft management plan that was prepared in context with the

KfW sponsored BKNP development project (1998-2003). The existing infrastructure appears sufficient in design and capacity to cater to the current and expected visitor demand. It is adjusted to the park's estimated carrying capacity in catering to visitors without negatively affecting the park's ecological integrity (Map 6). Experience from the first year operation however indicates that some modifications related to the current visitor infrastructure prove to be necessary in order to increase visitor safety and comfort and in order to make better use of the park's potential.

The current infrastructure inside the park concentrates on eight hiking trails and four tourist shelters situated in strategic locations (Mount Lomi, Amarati, Sakhvlari and Abastumani). The Park has seven official entrance gates that offer basic tourism facilities (Zanavi, Nunisi, Atskhuri, Abastumani, Marelisi, Likani and Kvabiskhevi). Additional entry points may have to be developed in order to provide access to the eastern section of the Park that was added in 2001. This section provides excellent hiking/trekking opportunities in an alpine setting that can be combined with a unique cultural experience offered through the traditional pastoralists with their livestock utilizing the sub-alpine grasslands during the summer months. The Park offers five self-serviced picnic/camping sites that are located at Zanavi, Nunisi, Atskhuri, Abastumani and Marelisi.

The current trail system available to visitors may be briefly described as follows:

**Trail 1:** This scenic trail leads from the settlement Likani to the village of Marelisi (41 km) through typical pristine montane forests and sub-alpine meadows. Mount Lomi offers a spectacular panoramic Mountain View. The highest peak along the trail is 2 198 m. An additional attraction along this trail is the flowering of the rhododendron in June and the George's Chapel. This trail is suitable for a 3 days trekking tour with two overnight stays, or can be done by horseback within two days and one overnight stay. The trail opens from May to October.

**Trail 2:** This trail leads from the Marelisi ranger station via the Sakhvlari tourist shelter, Mount Sametskhvareo, the Amarati tourist shelter to the park exit at the Atskhuri ranger station. Its total length is 51 km. The trail follows the historic footpath of the Apostle Andrew and is suitable for the trekker and trail-rider. It crosses the entire park from north to south. The recommended stay is four days and three nights. The trail is open from May until November. The highest peak along this route is 2 642 m.

In addition to the true natural wilderness experience and spectacular mountain scenery the trail bypasses several famous historic monuments such as the Tsiplary Chapel (14<sup>th</sup> - 15<sup>th</sup> century), the Church ruins of Kvazvinevi dating back to the late middle age, the Rkinis Jvari and Tba Monastery ruins from the 9<sup>th</sup> century and the Chapel at Mount Meghruki from the late middle age.

**Trail 3:** This trail leads from the Atskhuri ranger station and park entrance via the Amarati tourist shelter to the Atskhuri ranger station. Besides typical mountain scenery, the traditional life of shepherds may be experienced as a special attraction along this trail.

The 31 km trail is recommended for a three days hike with two overnight stays. It also is offered to the trail-rider as a two day trip. The trail is operational from May to November.

**Trail 4:** This trail connects the Zanavi entrance with the Nunisi entrance crossing the eastern park from south to north. The trail length is 13 km and is offered to hikers for a recommended two days trip with one over-night stay in the park. The trail is also open to trail-riders from May until November. The trail offers a typical mountain forest experience. The ruins of the famous St. Elia Church are a special attraction.

**Trail 5:** This circuit starts and ends at the Abastumani ranger station by-passing Didmagala along the way. Its attraction are typical Mountain scenery and the well-known health resort Abastumani. The trail length is 31 km and is open from April to November.

**Trail 6:** This 13 km, one day hiking trail connects the Likani gate with the Kvabiskhevi gate. It offers a typical forest related nature experience. It is open from May until November.

**Trail 7:** This 3 km circuit starts and ends at Park Headquarters in Borjomi. It is a self-guided nature trail offering a great educational experience in the study of natural history. An additional attraction are the ruins of the ancient St. Nino's Church. The trail is open from April to December.

**Trail 8:** This 5 km circuit is located inside the park making use of the Sakhvlari Tourist Shelter. Its special attraction is the spectacular Meghruki Gorge. Due to the difficult terrain inside the canyon, the trail is suitable for the experienced and physically fit hiker only. It is open from May until November and can easily be completed within one day.

The recommended enhancement of the current visitor infrastructure is described as follows.

- construction of a tourist shelter at Sametskhvareo (highest mountain peak inside the park) to be incorporated into trail number 2. This proves necessary for visitor safety and comfort reason due to the long distance between Amarati and Sakhvlari which requires an overnight stay along the trail;
- construction of a 15 km long new trail connecting Amarati with Mount Lomi. This trail would open up spectacular pristine mountain scenery;
- arrangement of entrance gate and camping site at Kvabiskhevi;
- establish two campsites along trail number 2 in order to reduce the long distance between the Atskhuri and Amarati shelters;
- establish a campsite in the vicinity of the shepherd's hut in order to reduce the long distance between Nasabajvari and Abastumani and to provide the visitor with the opportunity to learn more about the traditional life of shepherders in the Caucasus;
- establish one campsite along trail number 4. The distance between Zanavi and Nunisi proves to be too long without an overnight stay;

Other activities that need to be addressed on a priority basis for the visitor program include:

- maintenance of BKNP website. The establishment of an internet service and a website for the park which provides visitors with information on the park as a wilderness destination, infrastructure and services, booking procedures and whatever else should be made known to the public about the park and to improve its image;
- the elaboration of a color brochure Georgian, Russian and English languages; the brochure should briefly describe the park and its main features, highlight visitor related infrastructure using a stylized map and provide details on how to communicate with the park;
- production of practical guide books on trails, flora and fauna, historical monuments and other important park features;
- preparation of a fold-out map on the park's trail system and visitor infrastructure;
- establishment of a small showcase on the BKNP at the Tbilisi airport.

The principle norms, rules and regulations that apply to park users are described on billboards at the park entry gates. Visitors also receive a park brochure when booking a trip or entering the park on a day visit which provides the visitor with basic information on the park and its facilities, rules and regulations applying to the use of the trails and other facilities, as well as some basic recommendations on how to maximize a true nature and wilderness experience offered by the park. Special restrictions on the use of fire, overnight camping, the use of tourist shelters etc. are spelled out in the information materials given to the park visitor together with the entry voucher. The use of fires is restricted to the designated fireplaces at the shelters and the camping areas. Since all tourist shelters are self-servicing, visitors are responsible for a clean-up after use and proper garbage disposal as instructed. The tourist shelters are a smoke-free environment.

Tour guides will receive special training and instructions by the park staff under the guidance of the Chief of the Visitor Program. This applies in particular to operators of trail-rides who have to be familiar with the rules that apply to the use of horses inside the park.

Park entry and user fees have to be set at compatible rates. Fees are currently collected at the administration center until the visitor center becomes fully operational. Once fully operational, gate and special use fees can be directly paid at the visitor booking center or through tour operators who subsequently will reimburse the park according to the rules described in the operator's contract.

The Chief of the Visitor Program, jointly with the Sub-program Accounting and Finance will be responsible for the public bidding process of park user contracts and subsequent contract negotiations and contract agreement. The Chief will also be responsible for performance control by the operators in close cooperation with the ranger corps.

A description of the booking procedure related to park visitors will be part of the Park Procedure Manual to be prepared under the guidance of the Accounting and Finance Sub-program with a corresponding contribution by the Chief of the Visitor Program. At current, tour operators and individual tourists make their bookings directly at park's administration centers in Borjomi and Kharagauli.

The potential and actual impact of tourism related activities needs to be carefully mitigated, minimized and managed if tourism development in the park is to be sustainable. A Code of Conduct of relevance to visitors to the park as well as tour operators should be developed as a matter of urgency, to form part of the Procedure Manual of the park.

Park services provided at current to park visitors include:

- informational materials and brochures on the park free of charge;
- sale of maps, booklets, and special literature on the park, including flora and fauna;
- reservation service and sale of gate tickets and special use permits.

Private sector services provided at current to park visitors include:

- guided trailrides including all gear and professional guides;
- private accommodation in villages of the support zone;
- transportation and special guide services;
- traditional meal services by mountain shepherds.

**Priority Activities:**

**Contribution to the Park's Procedure Manual and Code of Conduct  
Production of written information materials on the visitor program  
Expansion of the park's visitor infrastructure**

### 3.2.4 Research and Monitoring program

The guiding principles for this Program are:

- The BKNP should facilitate research opportunities inside the park;
- priority should be given to cost-effective, applied, management-oriented research that contributes to a better understanding of the park's biodiversity, ecological functioning, socio-economic setting, and sustainable resource use (Traditional Use Zone and Managed Nature Zone);
- all research and monitoring that is conducted in the park must be ethical in design and implementation and must be conducted according to best practices;
- monitoring should be confined to indicators regarding ecosystem integrity and management efficacy (costly surveys should be avoided). Networking and cooperation should be promoted with local and international Universities, NGOs, other conservation areas as well as with potential funding agencies to obtain assistance, to share research/monitoring results and avoid duplication;
- the intellectual property rights of all works done in the BKNP will rest with the park unless otherwise agreed;
- data collection in the absence of an effective database and data management system is futile;
- the data base to be established should be freely accessible to legitimate users.

The primary objectives for the Research and Monitoring Program are:

- To encourage and facilitate appropriate ecological and socio-economic research and monitoring that is necessary for the effective management of the BKNP;
- to properly use research and monitoring results for the benefit of the park's sustainable protection and the benefit of its resources;
- to ensure that all data and information gathered either from a formal research or monitoring program are properly archived and stored in a form that is easily accessible for future use.

The efficacy with which complex biological systems can be managed is, to a large extent, limited by our knowledge of these systems. This knowledge however is in most cases far from complete and yet, management must continue. In most instances, an adaptive management approach is attempted. Here a goal is set, a management decision taken based on the best information available, the results of the management action monitored and the management subsequently adapted to 'optimize' goal achievement. The foundation of an adaptive management approach is an effective means of storing and recalling data on past conditions and management impacts. Without a well-organized and run information system, knowledge of the structure and dynamics of the BKNP will not grow in a structured way, and as a consequence, management of the BKNP will not advance as it should.

The primary purpose of the BKNP's information system is to securely store all data and information collected in the BKNP and its support zone (only data relevant to the protection of the park), in a manner that it can be easily retrieved and made available to facilitate management decisions and to further the understanding of the dynamics of the system.

More specifically, research and monitoring data should be archived for easy access and long-term preservation. This implies the development of a practical method for data access. Furthermore, the analysis of the data collected should be encouraged, in order to convert data into useful information to serve all Management Programs of the BKNP.

Under the guidance of the Chief of the Research and Monitoring Program a formalized record of published and unpublished materials on the BKNP and its support zone should be established and archived. Accessible past literature is an essential research tool and is relevant to managers who wish to familiarize themselves with a historical overview of the dynamics of the BKNP.

Apart from the published and unpublished literature on the BKNP, the best and probably the most important data will be collected, stored and maintained by the Chief of this Management Program. These data will form the basis of the quantitative description of the BKNP, and the understanding of the dynamics of its major biological components.

The overall objective for the establishment of a database is to develop and maintain a record on appropriate physical, biological and human attributes of the BKNP and make this information available in a manner that will further the management of the BKNP.

The Chief of the Research and Monitoring Program will formulate and sign MOUs and contracts with researchers and institutions showing interest in conducting research and monitoring in the park. Preference will be given to proposals that fit the overall research and monitoring priorities of the BKNP described below. The MOUs and contracts will specify the rules and regulations attached to research and monitoring in the BKNP.

The most important rules guiding research and monitoring in the park include:

- Only non-manipulative research will be allowed and only in designated areas according to park regulations;
- any collection of biological samples from the park need prior written permits which may only be issued in exceptional circumstances after verification by Georgia's Academy of Sciences;
- seasonal research restrictions apply.
- Research and Monitoring should not interfere with other management programs, in particular the visitor program;
- Research and Monitoring should not negatively impact on flora and fauna and the park's ecosystems at large in any way or fashion;
- research opportunities are offered by the BKNP free of charge but will be subject to supervision and guidance by the Program Chief;

- all data should preferably be geo-referenced (GPS).

The following databases are priority for the management and maintenance of the BKNP:

- Climate including rainfall and temperature;
- vegetation monitoring in all disturbed and actively managed areas of the park;
- animal sightings and distribution sightings of ‘rare’ species and occurrences;
- the distribution and extent of major insect and other pest outbreaks;
- law enforcement or illegal incidence database aimed at tracking the frequency and distribution of human incursions and illicit activities in the BKNP;
- all activities in the traditional use zone with respect to livestock grazing;
- the collection of minor forest products and the issue of licenses and special use permit;
- statistics on visitors (name, age, gender, country of origin, length of stay, visitor satisfaction);
- monitoring of all features in the park that are visited by tourists, in particular preferred sites, such as trails and camping areas in order to prevent environmental deterioration;
- information should be gathered from the support zone on a regular basis regarding the attitude of support zone people towards the park;
- GIS should become an integral part of the BKNP database. The spatial database (GIS) requires careful planning and management and each data set needs to be collected and documented to a certain standard. Each GIS coverage must be registered in the metadatabase;
- The GIS data base should include:
  - the BKNP boundary and zonation,
  - a digital elevation model,
  - the park’s entire infrastructure (roads, buildings, entry gates, trails, shelters, ranger stations etc.),
  - rainfall distribution,
  - occurrence of fires,
  - distribution of major plant communities,
  - distribution of rare plant communities,
  - and distribution and movement pattern of main mammal- and other selected animal species (flagship, charismatic, rare etc.).

The monitoring of the traditional use zone and all related activities should follow the established guidelines of the range management plan that forms a part of this report. Monitoring should also cover the corridors used to bring in the livestock.

Under the tutelage of the Program Chief the rangers should receive special in-service training on monitoring activities to be carried out by the ranger corps. This has to be done in close cooperation with the Chief of the Protection Program in order to harmonize activities.

Research priorities will change depending on the status of knowledge as a result from park monitoring and the questions being asked by the park's managers. For this reason, research priorities need to be reviewed regularly. Internal review should be undertaken on an annual basis, while a formal review should be done every three years with the assistance of the Academy of Sciences. All research done in the park needs the official approval of the Park Director. Prior to an agreement being reached between management and a prospective researcher, the researcher must submit and have approved a research proposal. The approval process will be based on the relevance of the research to the BKNP's information needs.

The proposed re-introduction of species will be permitted under special circumstances only. It may not include breeding in captivity prior to release. Released animals will be monitored in order to assess the re-introduction success. Any re-introduction project should be implemented by a professional biologist and financed through external sources.

No artificial mineral-licks will be established for any reason inside the park boundaries and no supplementary feeding of any wildlife is permitted. No 'exotic' species will be introduced to the park.

Any application for bio-prospecting inside the park will be assessed under guidance of the Research and Monitoring Program Chief and needs official approval by the Park Director. The terms (rules and regulations) for Bio-prospecting in general have to be developed by the Program Chief who also will be responsible to formulate corresponding agreements if a bio-prospecting proposal finds the approval of the BKNP. Any bio-prospecting activity needs close monitoring.

**Priority Activities**

**Elaborate a Monitoring Program and Schedule for the BKNP**  
**Establish a Data Base**  
**Identify Priority Research that improves the Management of the BKNP**

### **3.2.5 Support Zone Program**

The long-term success of the BKNP is dependent on developing a constructive, mutually beneficial relationship between the BKNP and local communities located in the support zone. There are certain issues that require immediate and concerted action to resolve, whilst other issues may arise over time. Suitable structures and mechanisms need to be put in place to deal with all these issues and to facilitate the desired working relationship.

The guiding principles for the Support Zone Program are:

- Promote a strong sense of ownership and empowerment amongst residents, support zone communities and all other stakeholders and ensure a strong institutional basis to support this;

- legal rights of people (traditional use rights in areas that are now integrated into the park);
- help to optimizes socio-economic and other benefits for local communities and ensure a strong institutional basis to support this;
- ensure that local participation is representative and inclusive of all community-based interest groups;
- establish effective communication and liaison structures;
- establish sound framework for public relations and communication on a local, regional and national scale;
- create effective networks of cooperation;
- initiate and promote a trust building process and where necessary a mechanism for conflict resolution; ensure that rangers and park staff in general are provided the necessary training to enable interactions with local people in a constructive manner.

During the development phase of the Borjomi-Kharagauli National Park strong emphasis was placed on economic assistance to the support zone in full recognition of the importance of ownership in the park to be developed by support zone communities. At the time of park establishment this was only possible through providing the support zone with tangible assets. Within the framework of the support zone program that is intimately tied to the BKNP, several districts sharing a common boundary with the park received donor assistance (KfW) in order to improve social infrastructure, to promote community projects (community based forest management), and to rehabilitate priority roads. The assistance package still continues and it is because of the park that donor efforts concentrate on the Borjomi-Kharagauli Region.

It is not one of the park's principal tasks to provide funding for the sustainable development of the support zone. However if this can be done indirectly through park intervention, it will be another fringe benefit for the support zone. The most important task of the park with regards to the support zone program is to establish a good rapport with the support zone communities. This may only be achieved through a continuing dialogue and good communication to be spearheaded by the Support Zone Chief. It will be the task of the Program Chief to develop jointly with the communication and public relations officer a schedule that facilitates communication and cooperation to be based on mutual respect.

**Priority Activity:**

**The Chief of the Support Zone Program jointly with the Sub-program Education and Awareness to develop a Support Zone Communication and Assistance Program.**

### **3.2.5.1 Communication and Public Relations (Includes Environmental Education and Awareness Building) as Part of the Support Zone Program**

The Worldwide Fund for Nature (WWF) with the financial assistance from the German Government developed and implemented a rather comprehensive Environmental Education and Public Awareness Program in the Borjomi- Kharagauli Region in support of the national park, starting as early as 1994. Officially, the program ended in the year 2000, although spin-offs are still on going. The program covered both, formal and adult education. Numerous teaching modules were developed, aimed at several target groups. Target groups ranged from school-teachers, NGOs, journalists, foresters and other professional groups to local politicians. All groups considered important for promoting the national park concept were included. Within the same program the Bakuriani Ecological Training Center was established as a venue for many of the seminars, workshops and courses given, including training modules for protected area personnel. Although the training center now operates on its own, it still caters to mostly environmentally oriented groups in the region.

The environmental awareness campaign which was implemented simultaneously under the same umbrella by WWF made good use of mass media and produced materials including films and educational videos which still enjoy frequent re-runs on public television. Thanks to this excellent ground-work by WWF, the national park concept became already well known prior to the creation of the BKNP. It is for this reason that the creation of the national park did not meet much resistance on the District level, neither by local authorities nor the population at large.

Building on this foundation the BKNP faces the challenge to continue the excellent work done by WWF in the past. It will be the task of the Communications and Public Relations Officer jointly with the Chief of the Support Zone Program and other BKNP staff to continue with numerous activities started by WWF.

Another task in this context will be to elaborate jointly with the Research and Monitoring - and the Visitor Program information materials on the park and on park issues for the benefit of the park's visitor program and support zone communities.

Focal activities are highlighted as follows:

- Prepare billboards for a permanent exhibition scheme to be used in public events taking place in the support zone and in which the park should be represented to show its presence and to promote its image (principle target group: communities and people);
- to prepare presentations (power point, slide-shows, videos) on park related issues to be used in seminars with local authorities (principle target group: municipalities, district authorities, community representatives);
- to prepare lectures on environmental and natural history issues that are of interest to school children to be used for formal education at schools of the support zone; organize and implement other activities for school children which fit the educational

curricula and benefit the environment (principle target group: teachers and school children);

- to invite school classes to the park for hands-on experience in (principle target group: teachers and school-children);
- to organize and implement the Atskhuri summer camp for young students to be exposed to park matters by actively participating in ranger patrols, clean-ups and many other tasks related to park management (principle target group: selected students from secondary schools);
- to organize visits by University students interested in protected area matters (principle target group: University students);
- to organize meetings and joint environmental action programs together with local NGOs (principle target groups: local environmental NGOs);
- to organize on a regular basis press conferences and prepare jointly with journalists materials on the park and support zone issues for television and local newspapers (principle target groups: media representatives, and the general public);
- to organize jointly with the Support Zone Program Chief VIP visits to the park with focus on potential donors and major decision makers from Government and the Private Sector (principle target groups: major decision makers and potential donors);
- jointly with other park management programs prepare information materials, and suitable park related souvenirs such as t-shirts, baseball caps, buttons, stickers, posters, calendars etc. for the visitor program and to be sold at park kiosks and contract shops in the support zone (principle target groups: park visitors and general public);
- jointly with other park programs produce a bi-annual park newsletter (principle target groups: friends of the BKNP and the general public);
- jointly with other park programs prepare once/year an open house in Park Headquarters Borjomi and the Kharagauli Office (Principle target group: general public);
- to assist the Chief of the Visitor Program jointly with the Coordinator of the Research and Monitoring Program in the illustration and lay-out of the self-guided nature trails.

It is understood that the environmental education and awareness activities should involve as much park staff as possible to give the park maximum exposure without interfering with the key responsibilities of the personnel to be involved in this Program.

**Priority Activity:**

**Preparation of an action plan**

**PART FOUR**  
**BUSINESS PLAN**

## **4.1 PURPOSE OF THE BUSINESS PLAN**

The key objectives of the Business Plan for the Borjomi-Kharagauli National Park are to:

- Highlight the key activities the BKNP intends to undertake during the five-year period covered by this Business Plan, including existing activities, future programs and new strategies, especially with respect to locate sustainable financing for the BKNP.
- Provide both internal and external stakeholders with information regarding current programs, projects and activities of interest to them, which will be completed during this period.
- Seriously address the issue of covering expected financial budget shortfalls of the BKNP operations.
- Obtain presidential approval of this Business Plan as an integral part of the BKNP Management Plan.
- To use this Business Plan as integral part of the BKNP Management Plan as a model for the elaboration of Management Plans for other protected areas in Georgia.

This Business Plan is based on the Vision Statement and the related Goals described in Part II of the Management Plan. It is guided by the Zoning requirements and Management Programs of the BKNP which are fundamental to an organized management and law enforcement of the national park. The Business Plan analyses the current and future budget of the BKNP by comparing operational cost to revenues expected to be generated by the park and core funding to be received from the GoG.

Based on this information the Business Plan will propose strategies that may enable the BKNP to achieve financial sustainability.

## **4.2 FINANCIAL MANAGEMENT OF THE BORJOMI-KHARAGAULI NATIONAL PARK**

### **4.2.1 Introduction**

It is critical that sound financial management should not only be seen as the accurate recording of the financial implications of past activities, but also that of directing future activities in order to obtain the maximum benefit whilst striving simultaneously towards achieving the objectives of the BKNP as described in the vision statement of the Management Plan. The scope of financial management includes the effective execution of three decisions: investment, financing and profit (operational benefit) decision. In context of the BKNP, financial management is seen as:

- the accurate recording of the financial implications of past activities;
- control over the financial aspects of the park;

- general accepted accounting practices for recording, control and planning purposes;
- reporting on the operational activities of the park;
- reporting on the assets and liabilities of the park;
- optimizing revenue generation;
- achieving financial sustainability by balancing operational expenditure and income to be generated.

#### **4.2.2 The Budget of the Borjomi-Kharagauli National Park**

Table 3 provides a summary overview of the budget requirements of the BKNP for the five-year period covered by this Business Plan, divided into investments and operational costs. A more detailed budget break-down is provided in Annex 4. The BKNP budget is organized by Management Programs which facilitates overall financial planning. The detailed budget as provided in Annex 4 is stratified into four quarters for each budget year. This facilitates the planning of financial disbursements over the planning period and the elaboration of annual work-plans.

As may be recognized from the summary budget there is little need for additional investments in the BKNP which have all be taken place during the five year development phase of the park which was financed by KfW and implemented under the auspices of WWF Georgia. Additional infrastructure needs focus on the visitor program. This is in accordance with the park's philosophy that the development of the tourism sector should be strictly demand-driven and market-orientated.

The financial spreadsheets clearly show that wages are the most costly item of the summary budget, followed by vehicle related expenses and maintenance of the park infrastructure.

The summary table does not reflect the replacement costs for equipment and vehicles that will become due within the last year covered by this business plan. This applies in particular to all computer equipment, selected other electronic equipment and all vehicles. The estimated total replacement cost will be 190,000. It is hoped that funding for this amount will be available from the proposed Trust Fund (see chapter 4.5) and/or other donor sources.

Table 4 compares wages of the BKNP in accordance with the Government grading scale to the wages that should be paid in order to enable compatible lifestyles of park personnel. Government wages are totally insufficient to meet the real life needs of the park employees. At current, topping-up is provided through KfW which will continue until the end of the 2003 calendar year. A solution has to be found for covering the difference between Government wages and the current topping-up once KfW funding expires. The expected shortfall of the operational budget in personnel costs alone will be GEL 122.680 by the year 2006. It is hoped that the difference will then be paid in the



## Summary Investment and Operational Costs for the Borjomi-Kharagauli National park

	Management Programmes	Budget				
		2004	2005	2006	2007	2008
<b>1</b>	<b>Administration programme</b>	<b>197,165</b>	<b>82,665</b>	<b>82,665</b>	<b>82,665</b>	<b>82,665</b>
	Staff costs	12,540	12,540	12,540	12,540	12,540
	Travel costs	925	925	925	925	925
	Training and career development costs	2,200	2,200	2,200	2,200	2,200
	Office recurring costs	44,000	44,000	44,000	44,000	44,000
	Vehicle recurring costs	13,500	11,000	11,000	11,000	11,000
	Miscellaneous costs	92,000				
	Maintenance costs	12,000	12,000	12,000	12,000	12,000
	Investment costs	20,000				
<b>2</b>	<b>Protection programme</b>	<b>196,113</b>	<b>218,693</b>	<b>146,693</b>	<b>146,693</b>	<b>180,693</b>
	Staff costs	68,388	52,068	52,068	52,068	52,068
	Travel costs	75	75	75	75	75
	Training and career development costs	20,450	20,450	20,450	20,450	20,450
	Office recurring costs					
	Vehicle recurring costs	24,000	24,000	24,000	24,000	24,000
	Miscellaneous costs	13,800	61,200	4,200	4,200	38,200
	Maintenance costs	45,900	45,900	45,900	45,900	45,900
	Investment costs	23,500	15,000			
<b>3</b>	<b>Visitor programme</b>	<b>21,571</b>	<b>76,271</b>	<b>41,271</b>	<b>18,271</b>	<b>18,271</b>
	Staff costs	3,096	3,096	3,096	3,096	3,096
	Travel costs	175	175	175	175	175
	Training and career development costs	1,500	1,500	1,500	1,500	1,500
	Office recurring costs					
	Vehicle recurring costs	2,000	2,000	2,000	2,000	2,000
	Miscellaneous costs	500	2,000		1,000	1,000
	Maintenance costs	10,500	10,500	10,500	10,500	10,500
	Investment costs	3,800	57,000	24,000		
<b>4</b>	<b>Research and monitoring programme</b>	<b>8,963</b>	<b>6,463</b>	<b>6,463</b>	<b>6,463</b>	<b>6,463</b>
	Staff costs	2,088	2,088	2,088	2,088	2,088
	Travel costs	75	75	75	75	75
	Training and career development costs	1,000	1,000	1,000	1,000	1,000
	Office recurring costs					
	Vehicle recurring costs	2,000	2,000	2,000	2,000	2,000
	Miscellaneous costs					
	Maintenance costs	1,300	1,300	1,300	1,300	1,300
	Investment costs	2,500				
<b>5</b>	<b>Support zone programme</b>	<b>32,263</b>	<b>34,763</b>	<b>32,763</b>	<b>32,763</b>	<b>32,763</b>
	Staff costs	2,088	2,088	2,088	2,088	2,088
	Travel costs	175	175	175	175	175
	Training and career development costs	1,000	1,000	1,000	1,000	1,000
	Office recurring costs					
	Vehicle recurring costs	2,000	2,000	2,000	2,000	2,000
	Miscellaneous costs	26,500	29,000	27,000	27,000	27,000
	Maintenance costs	500	500	500	500	500
	Investment costs					
	<b>TOTAL</b>	<b>456,075</b>	<b>418,855</b>	<b>309,855</b>	<b>286,855</b>	<b>320,855</b>

following years from the proceeds of the proposed Trust Fund (Endowment part) in favor of Georgia's protected areas system as will be described in Chapters 4.4 and the following. The proposed target salaries by the year 2008 (i.e., expiry date of this Business Plan) will

be five times over and above the expected Government wage contribution (i.e., not considering any potential Government initiated wage increases in accordance with official grading scales). The expected wage total by the year 2008 will be GEL 304,200.

**Table 4. State Wages and Proposed Topping-up**

Staff Positions	State Wages					Proposed Topping-up				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
1 director	1,260	1,260	1,260	1,260	1,260	1,260	1,260	2,520	3,780	5,040
1 deputy director	1,152	1,152	1,152	1,152	1,152	1,152	1,152	2,304	3,456	4,608
5 chiefs of manag. programs	5,400	5,400	5,400	5,400	5,400	5,400	5,400	10,800	16,200	21,600
1 maintenance officer	1,008	1,008	1,008	1,008	1,008	1,008	1,008	2,016	3,024	4,032
1 asistant to mainten. officer	648	648	648	648	648	648	648	1,296	1,944	2,592
6 guards	2,520	2,520	2,520	2,520	2,520	2,520	2,520	5,040	7,560	10,080
3 cleaners	1,260	1,260	1,260	1,260	1,260	1,260	1,260	2,520	3,780	5,040
1 chief accountant	1,008	1,008	1,008	1,008	1,008	1,008	1,008	2,016	3,024	4,032
1 cashier	420	420	420	420	420	420	420	840	1,260	1,680
1 human resource officer	1,008	1,008	1,008	1,008	1,008	1,008	1,008	2,016	3,024	4,032
1 secretary	528	528	528	528	528	528	528	1,056	1,584	2,112
2 drivers	648	648	648	648	648	648	648	1,296	1,944	2,592
2 section rangers	2,016	2,016	2,016	2,016	2,016	2,016	2,016	4,032	6,048	8,064
9 senior rangers	7,020	7,020	7,020	7,020	7,020	7,020	7,020	14,040	21,060	28,080
46 rangers	30,912	30,912	30,912	30,912	30,912	30,912	30,912	61,824	92,736	123,648
1 environ. education officer	1,008	1,008	1,008	1,008	1,008	1,008	1,008	2,016	3,024	4,032
1 assistant in Kharagauli	1,008	1,008	1,008	1,008	1,008	1,008	1,008	2,016	3,024	4,032
1 assistant in Kharagauli	1,008	1,008	1,008	1,008	1,008	1,008	1,008	2,016	3,024	4,032
1 communications officer	1,008	1,008	1,008	1,008	1,008	1,008	1,008	2,016	3,024	4,032
<b>TOTAL</b>	<b>60,840</b>	<b>60,840</b>	<b>60,840</b>	<b>60,840</b>	<b>60,840</b>	<b>60,840</b>	<b>60,840</b>	<b>121,680</b>	<b>182,520</b>	<b>243,360</b>

### 4.2.3 Income

The projected income for the BKNP is composed of (a) core-funding provided by the Government, composed of wages and a contribution to the operational budget, (b) income generated from tourism, and (c) donations and other income that still needs to be specified.

The GoG passed a Law on “The Budget System of Georgia” (24 April 2003) which determines the principles of budgeting procedures (Budgeting system) and regulates its application. According to the new law all revenue generated within the Government Structure has to be returned to the Treasury as part of the Ministry of Finance.

This new law has serious implications regarding attempts by protected areas to become financially self-sufficient, since all revenues generated by a PA have to be returned to the Treasury. As a consequence, protected areas find little incentives in becoming actively involved in fund-raising since funds raised would have to be returned to the Treasury. The only feasible solution under current circumstances, short of changing the law, would be the establishment of an independent Foundation outside of the Government structure that would not fall under the obligations of the new law.

Table 5 compares the operational costs of the BKNP to currently available funding. In due consideration of the chronic budget shortages of the GoG it appears unrealistic to expect the GoG to fully cover the proposed operational costs of the BKNP on a sustainable basis. In this light it is evident that other long-term solutions to sustainable financing have to be found. This has to be seen in context with Georgia's protected area system at large since all of Georgia's protected areas are equally affected by shortfalls in operational budgets. In fact, the Borjomi-Kharagauli National Park appears to be the country's only protected area that currently is sufficiently staffed and equipped thanks to the generous grant by the German Government and funding that will expire in 2005. In this light it appears prudent to address the financial problems of all of Georgia's protected areas, of which the BKNP figures prominently.

**Table 5. Comparison of Revenues Expected to be Generated in Year 2003 by the BKNP Compared to Operational Costs of the Park (in GEL)**

	Source	Revenue	Operational Costs	Difference
1	Gate fees and use of infrastructure <i>(based on 700 visitors)</i>	15,000		
2	Equipment rental by visitors	7,000		
3	Kiosk sale proceeds	3,000		
4	Concessions	3,780		
5	Leases (grazing in traditional use zone)	15,000		
6	Permits <i>(firewood and minor forest products)</i>	10,500		
	<b>TOTAL</b>	<b>54,280</b>	<b>400,000</b>	<b>345,720</b>

### 4.3 GEORGIA'S PROTECTED AREA SYSTEM

It is widely recognized that the Government of Georgia is seriously committed to biodiversity conservation; it is equally recognized, however, that the GoG does not have the financial means to provide sustainability to its conservation efforts. There is consensus that long-term security of the ecological integrity of Georgia's PAs cannot be guaranteed through common Government sources due to chronic budget shortfalls, the lack of marketable natural resources in the country and the urgent need to address other priorities such as poverty alleviation. As already mentioned a realistic and feasible long-term financial strategy has to be developed in order to meet this challenge. It is evident that this cannot be achieved without outside assistance.

Georgia's Department of Protected Areas (DPA) that is entrusted with the management of the country's protected area system, continues to be under-staffed and under-financed,

unable to effectively fulfil its mandate without outside assistance. Furthermore, revenue-generating opportunities by protected areas in Georgia are practically non-existent and promise little hope for the future. Tourism is not expected to provide any substantial contribution to protected area budgets, not even under the most favorable circumstances. Hence, financial mechanisms other than Government contributions and opportunities from internal revenue generation have to be found to achieve financial sustainability for the protected areas of Georgia.

As shown by Table 6 Georgia's protected area system is composed of three principle protection categories covering a total area of approximately 330, 000 has. The sixteen State Nature Reserves (i.e., equivalent to IUCN category I) encompass around 170,000 has; the two National Parks (i.e., IUCN category II) approximately 100,000 has (minus 18,000 has that form the Borjomi State Nature Reserve as integral part of the Borjomi-Kharagauli National Park), and the six Sanctuaries (i.e., IUCN category IV) of approximately 165,000 has. The size of individual protected areas ranges from 300 to 50,000 has of which National Parks with almost 50,000 has each form the largest contiguous conservation blocks.

National Parks are a relatively new category to Georgia that was introduced after the democratization in 1992 when Georgia adopted the internationally recognized IUCN classification system for protected areas. The oldest PAs in the country are State Nature Reserves, dating back as far as 1929. The most recent addition to the PA system are the National Parks Colkhети (1998), Tusheti and Vashlovani (2003). State Nature Reserves and National Parks are composed of over 60% by forest ecosystems, the remainder is made up of sub-alpine/ alpine meadows and wetlands (see Colkhети National Park).

It is noteworthy that the core costs (i.e., basic annual operational costs composed of wages and other recurring expenditure) for all of Georgia's protected areas combined currently amount to approximately US\$ 160,000 per year. This compares favorably (i.e., very low) to international standards. The highest operational costs per unit area are recorded for the Borjomi-Kharagauli National Park (BKNP). This is explained by the high investment costs for this NP during the past five years, thanks to KfW's financial contributions that facilitated infrastructure development and the successful establishment of a functioning management structure for the park.

The BKNP may serve as an example of the frequently ignored fact that financial interventions, especially those that are related to infrastructure development, come at a cost. It is safe to state that operational costs increase in proportion to the size of investments. This is the direct result of an expanded maintenance program and additional

**Table 6. Georgia's Protected Areas and Corresponding Current Operational Costs**

Protected Area	IUCN	Location		Total area (in has)	Forested area (in has)	Date of Establishment	Budget (in GEL)
		Longitude	Latitude				
<b>1 State Nature Reserves</b>				<b>168,6995</b>	<b>140,684</b>		<b>106,008</b>
Ajameti	Ia-Ib	42°08'00"	42°48'00"	4,845	4,738	1946	17,470
Akhmeta	Ia-Ib			16,297	13,766	1980	9,366
<i>Tusheti plot</i>		42°22'00"	45°39'00"	12,485		1980	
<i>Batsara plot</i>		42°14'00"	45°16'00"	3,042		1935	
<i>Babaneuri plot</i>		42°06'00"	45°24'00"	770		1960	
Bichvinta-Miusera	Ia-Ib	43°10'00"	40°25'00"	3,645	3,480	1965	Abkhazia
Borjomi	Ia-Ib	41°50'00"	43°15'00"	17,948	16,251	1929	Incl. in BKNP
Vashlovani	Ia-Ib			8,034	3,414	1935	8,432
<i>Eastern plot</i>		41°08'00"	46°37'00"				
<i>Western plot</i>		41°14'00"	46°28'00"				
Kazbegi	Ia-Ib	42°40'00"	44°39'00"	8,707	3,957	1976	8,996
Kintrishi	Ia-Ib	41°45'00"	42°03'00"	13,893	12,850	1959	9,246
Kobuleti	Ia-Ib	41°51'00"	41°48'00"	331.25		1998	
Lagodekhi	Ia-Ib	41°52'00"	46°19'00"	17,932	12,167	1912	14,746
Liakhvi	Ia-Ib	42°19'00"	44°17'00"	6,388	5,386	1977	7,736
Mariamjvari	Ia-Ib	41°46'00"	45°23'00"	1,040	931	1939	
Pskhu-Gumista	Ia-Ib			40,819	37,800	1976	Abkhazia
<i>Pskhu plot</i>		43°20'00"	40°55'00"	27,334		1976	
<i>Gumista plot</i>		43°11'00"	41°05'00"	13,400		1941	
<i>Skurcha plot</i>				0.085		1977	
Ritsa	Ia-Ib	43°28'00"	40°33'00"	16,289	14,921	1957	Abkhazia
Saguramo	Ia-Ib	41°52'00"	44°48'00"	5,359	4,979	1948	11,852
Sataplia	Ia-Ib	42°18'00"	42°40'00"	354	209	1935	6,598
<b>2 National Parks</b>				<b>95,249</b>	<b>61,300</b>		<b>180,200</b>
Borjomi-Kharagauli	II	41°50'00"	43°15'00"	50,400	40,000	1995	102,200
Colkhети	II			44,849	21,300	1998	78,000
<i>Imnati plot</i>		42°06'00"	41°51'00"	20,414	15.00		
<i>Anaklia-Churia plot</i>		42°18'00"	41°39'00"	4,478	3,300		
<i>Nabada plot</i>		42°13'00"	41°42'00"	4,215	3.00		
<i>The Black Sea plot</i>		42°10'00"	41°30'00"	15,742			
<b>3 Sanctuaries</b>				<b>59,050</b>	<b>5,992</b>		<b>45,190</b>
Chachuna	IV	41°17'00"	46°00'00"	21,245	1,439	1996 (1965)	5,496
Gardabani	IV	41°25'00"	45°03'00"	3,484	1,947	1996 (1957)	10,332
Iori	IV	41°28'00"	45°38'00"	17,307	1,314	1996 (1958)	9,830
Katsoburi	IV	42°10'00"	42°04'00"	295	130	1996 (1964)	6,990
Kobuleti	IV	41°51'00"	41°48'00"	438.75		1998	Incl. in Colkhети
Korugi	IV	41°38'00"	45°27'00"	16,281	1,162	1996 (1958)	12,542
<b>TOTAL</b>				<b>322,299</b>	<b>207,976</b>		<b>331,398</b>

Note: 1 US\$ = 2.15 GEL

manpower requirements following the development interventions. This has to be taken into account when forecasting future operational costs for those protected areas that area subject to financial aid for infrastructure development (i.e., Colkhети, Vashlovani, Tusheti etc.). In other words, the overall operational costs for Georgia's protected areas as listed in table 6 will increase accordingly.

Wages of PA staff have remained the same over the past five years in Georgia, although the living costs in the country have sky-rocketed within the same time-period. Realistically, wages could be expected to at least triple over the next five years, resulting

in a substantial increase in the overall operational costs of protected areas. Assuming that the minimum infrastructure and equipment requirements of Georgia's current protected areas can be met in the future through additional outside funding, the projected operational costs by the year 2007 may be as high as 1.0 Mio US\$ per year, a figure that still compares favorably to most other countries in the world.

#### **4.4 FINANCING GEORGIA'S PROTECTED AREAS**

The issue of financial sustainability of protected area conservation is a serious problem worldwide that is increasingly been addressed by environmental NGOs and the donor community at large. This is of particular importance to donors that are trying to secure their investments in protected areas. In a struggle to find feasible solutions to this problem many avenues have been tried, mostly concentrating on revenue generating opportunities from the protected areas within. Lessons learned show that most of these efforts have failed. Amongst the wide range of options tried, trust funds appear the most promising. There is growing consensus worldwide that trust funds in the widest sense may be the safest and most feasible long-term solution in achieving financial sustainability for protected areas in all those countries in which national budgets are unable to cover the conservation costs by sources from within.

Numerous of the Trusts established in favor of PAs and PA systems worldwide (well in excess of 400 known cases), manage "Endowment Funds" which cover shortfalls of PA specific operational costs through the interest generated by the funds invested on-shore and off-shore. Most of the Trust Funds are established according to laws of the recipient country in which the Trusts are established. The Trusts are generally managed outside Government Structures, involving the private sector and NGOs.

In this light it is suggested to assess the opportunity to establish a Trust Fund for the benefit of Georgia's protected areas and to use part of the interest to be generated by the Fund (Endowment Fund is the preferred Fund option) to cover the expected shortfalls of the operational budget of the BKNP. The principal objective is to contribute to the BKNP's core funding (Government contribution to the operational budget) and the internally generated income.

The establishment of an Endowment Fund that will generate sufficient interest to pay the shortfalls of all of Georgia's protected area budgets combined should be the key strategy to be pursued in this context. It is proposed that this BKNP Business Plan will spearhead the promotion and establishment of the proposed Endowment Fund in favor of Georgia's PA system. Of which the BKNP in return will become a direct beneficiary.

#### **4.5 ESTABLISHMENT OF AN ENDOWMENT FUND**

It is suggested that the DPA appoints a Trust Fund Steering Committee (TFSC) in order to establish a trust fund for protected areas of Georgia as soon as possible. It further is proposed that the process be spearheaded by the WWF Programme Office of Georgia which has shown a long-standing interest in the establishment and operations of Georgia's protected area system. The TFSC should be composed of non-governmental members serving in an individual capacity and representing expertise in different sectors, including conservation, banking, private sector, legal and non-profit management.

With the assistance of a Consultant experienced with the establishment of Trust Funds, a trust fund profile, its legal statutes and operational procedures should be drafted.

The TFSC should approach WWF Georgia, Conservation International and KfW to provide seed money for the proposed Trust. Furthermore, WWF should be approached regarding its willingness to serve as the executing organization for the Trust, to be guided by a Board of Trustees. The Trustee Board should be composed of persons who are beyond reproach. It is proposed further that the TFSC approaches KfW to jointly with the UNDP to conceptualize a project profile for GEF co-financing.

It is proposed that the trust fund be established in Georgia under the Georgian Civil Code of 1997 (*article 30*) or under the most suitable framework to be identified by the TFSC. With assistance from legal counsel, the TFSC should ascertain that the legal status of a "Fund" is the most appropriate legal form for a trust fund in Georgia. It is suggested that although the Fund would be legally registered in Georgia, most of its assets would be invested offshore.

The Fund should be designed in a manner that allows for the establishment of an "Endowment Fund" and "Sinking/Revolving Fund" in order to attract the private sector interest. Revenues to be generated by the Endowment Fund would mostly be used to cover financial shortfalls in operational costs of protected areas, whereas the sinking fund portion would focus on infrastructure development, equipment and capacity building needs of the PAs .

This proposed Caucasus Protected Areas Fund for Georgia (CPATFG) is perceived as a pillar to the larger sustainable finance agenda for Georgia's Environmental Protection Strategy. It is expected to lead the mobilization of substantial funding necessary to cover the core costs of the PA network and its expansion and the sustainable development of priority ecological corridors. In parallel, individual agencies and protected areas are requested to prepare their own strategies to improve cost recovery and revenue opportunities to be modeled after this Business Plan.

Lessons learned from trust funds elsewhere indicate the critical importance of involving the private sector. Ownership in the sustainable protected area management by the private sector has proven a key requisite for successful long-term solutions to financial bottlenecks. The TFSC responsible for the establishment of the CPATFG should take this into account and fully capitalize on private sector opportunities to be identified in due

course. The trust fund should establish “windows” that permit private sector investments especially towards the sinking fund section of the trust.

The first step in the fund raising strategy will be the successful establishment of the CPATFG. Once the Fund structure is in place, governed by a trustworthy Board of Directors, it is much easier to find donors willing to provide contributions.

It is proposed that the TFSC approaches the German Government for co-financing of the CPATFG. This appears timely in the light of Germany’s strong desire to secure its investments in the Caucasus Protected Area System.

#### **4.6 FUND RAISING**

Alternatively, or in parallel to establishing the proposed Trust Fund the BKNP is encouraged to embark on its own fund-raising campaign. This requires the technical assistance of a professional fund-raiser who will design and implement the fund-raising campaign.

Prior to any efforts in this respect however clarification is needed on the legality of fund raising by the BKNP. For the park to engage in any fund-raising initiative some legally binding agreement is needed between the BKNP and the GoG that permits the BKNP to retain the funds raised. This also applies to the revenues generated by the park that should return into the BKNP budget.

As mentioned earlier, at current such funds have to be returned to the Ministry of Finance at the end of each fiscal year. In this context it is recommended that the GoG exempts protected areas from the Law on “The Budget System of Georgia” from 24 April 2003 which would then permit protected areas to develop and implement meaningful business plans that can address financial strategies for the benefit of the protected areas.

#### **4.7 OPTIMUM GOVERNANCE OF THE BORJOMI-KHARAGAULI NATIONAL PARK**

In this context the question regarding “Optimum Governance” of the BKNP may also be raised. It should be assessed whether the current administrative structure which places protected areas under the authority of the DPA and the MoE is the optimum solution considering the chronic Government budget shortage. Alternatives could include co-management agreements between the GoG and the private sector, where suitable NGOs would be entrusted with managing protected areas. NGOs have their own network and do their own fund-raising. Decentralization may be another option. This would apply that management authority for a PA would be given to regional/local authorities. This also would encourage regional and local ownership in conservation issues. This discussion on the “optimum governance” of the BKNP in search of a long-term solution to the problems regarding the expected financial budget shortfalls of the park should be continued.

# ANNEXES