

Management Plan for Tusheti Protected Areas

Chapter I: Introduction

Article 1: Geographical Scope of the Management Plan

1. In accordance with the Article 49 of the “Law on the Establishment and Management of Tusheti, Batsara-Babaneuli, Lagodekhi and Vashlovani Protected Areas”, Tusheti Protected Areas consist of three categories of Protected Areas (PAs), including:

1. Tusheti State Reserve (IUCN Category I)
2. Tusheti National Park (IUCN Category II)
3. Tusheti Protected Landscape (TPL) (IUCN Category V)

The management of Tusheti Protected Areas (TPA) is the responsibility of two separate government entities. Tusheti State Nature Reserve and National Park hereafter “Tusheti PA or TPA” are managed by the Agency for Protected Areas (APA), a legal entity of public law and its territorial unit – the administration of Tusheti PAs, while the Tusheti Protected Landscape is managed by Akhmeta Municipal government through its territorial unit. Tusheti PAs management plan is elaborated for the State Nature Reserve (NR) and the National Park (NP).

2. Tusheti PAs are located in the North-East of Georgia. Tusheti National Park encompasses the (i) southern slopes of the lateral (Pirikita) range (at this location the Pirikita range is higher than the main range attaining 4,500 m above sea level), (ii) the northern slopes of the Greater Caucasus, (iii) Tusheti inter-mountain depression and (iv) a section of Speroza ridges. The northern and eastern boundaries of the Tusheti PAs represent the Georgian border with Russian Federation. More specifically, the Park from the north is bordered by Chechnya and Ingushetia and from the east by Dagestan. From the south, the park is bordered by Kakheti province and from the west by Pshav-Khevsureti, where the border line crosses the Atsunta range and the Tebulo mount. From place to place internal boundaries of the Tusheti National Park coincide with river beds or other physical-geographical barriers, but at most do not follow such logic. The major part of the park’s internal borders represents external borders of PL. Some sections of the NP are bordered directly with NR (see map, Appendix 1).

The territory of the State Nature Reserve consists of several isolated segments. It comprises gorges of the rivers Pirikita Alazani, Gometsari Alazani and Tchanchakhovani, more specifically: the part of the right slope of the Ortskali watershed until the confluence of the rivers Gometsari and Tchanchakhovani Alazanis, low reaches of the Pirikita Alazani, extreme eastern part of the Makratela range and surrounding to it the pine forests to mount Diklo; pine forests found on the right slope of the Pirikita Alazani watershed from Dano floodplain to Omalo-Shenako horse bridge; the right side of the Tchanchakhovani watershed from the mouth of the river Nakhiduri Tskali to the mouth of the river Khisos Khevi; forest groves distributed on the right side of the watershed from the confluence of the rivers Gometsari and Pirikita Alazani to the border with Dagestan. One of the largest isolated patches is so-called Speroza section, located on the south-western part of Tusheti and represented by Tur habitats and forest groves.



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UNDP/GEF project "Catalyzing Financial Sustainability of Georgia's
Protected Areas System" (00070382)
Testing site-level revenue generation mechanisms in Tusheti PAs

Prepared by
**NACRES - Centre for Biodiversity
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Borders of the Tusheti State Reserve in places coincide with river gorges, tourist trails and sheep migration routes or other physical-geographical barriers, while the eastern boundary coincides with the national border. However, in most parts the boundaries do not follow such logic (see map, Appendix 1).

3. Tusheti PAs are located in the Akhmeta Municipality of Kakheti region.

Article 2. Legal Framework for the Management Plan

The following juridical documents represent the legal basis for the Tusheti PAs management plan: (i) Georgian law on the System of Protected Areas (1996), (ii) Georgian Law on the Establishment and Management of Tusheti, Batsara-Babaneuli, Lagodekhi and Vashlovani Protected Areas, (iii) Georgian Law on the Red List and the Red Book, (iv) Forest Code of Georgia, (v) Georgian Law on Wild Fauna, (vi) Georgian Law on Environmental Protection, (vii) #242 Decision of the Government of Georgia (GoG) on the Approval of the Rule on Forest Use, 20 August, 2010, (viii) Decision #399 on Calculating Initial Price for and Organizing an Auction on the Concession for the Use of the PA's Real Estate (except for the property of Protected Landscape and Managed Reserve)", 7 September 2011; ix) other laws and sub-laws.

The management plan for Tusheti has been prepared in accordance with the #39 decree of 22 August 2011 of the Minister of Environment, on the *Developing Methodology and, Defining Timelines and Procedures for Preparation of a Format, Content and Thematic Parts of the PA Management Plan*.

Article 3. Land Uses within the PAs

1. The land of the Tusheti National Park and State Nature Reserve is a state property.
2. Local population is allowed to use natural resources on a limited scale in the traditional use zone of the Tusheti National Park.

Article 4. Objectives of the PAs

The objectives of Tusheti PAs are as follows:

- a) Tusheti Nature Reserve – Preservation of nature, natural processes and genetic resources in dynamic and pristine conditions and carrying out monitoring, scientific research and educational activities; conservation of unique pine (*Pinis kochiana*) and birch (*Betula litwinowii*, *B. raddeana*) forests; maintaining of habitats of rare species as well as erosion control, water regulation and avalanche preventing functions of these forests.
- b) Tusheti National Park – protection and preservation of nationally and internationally important mountainous landscapes and ecosystems, conservation of rich flora and fauna, development of ecotourism and supporting the traditional livelihoods based on the principle of sustainable use of natural resources.

Article 5. Objectives of the Management Plan

1. This Management Plan has been elaborated in accordance with the Law on Protected Areas, which mandates development of management plans for all PAs.
2. The objective of the management plan is to define long-term objectives for the PA, which should be attained by the responsible agency during the time-span of the management plan through planning and implementing concrete actions and setting up monitoring and evaluation indicators for evaluating the implementation of the plan.

Article 6. PA Management Planning Process

The management planning process was conducted within the framework of the UNDP/GEF project: "Catalyzing Financial Sustainability of Protected Areas System of Georgia". The Project Implementation Team (PIT) facilitated the elaboration of the management plan through organizing four working meetings with Tusheti PA administration and APA and as well through the joint APA-PIT workshop with participation of local population and other stakeholders.

In addition, during the planning process, first management plan for Tusheti PA (2003-2008) and the current sub-plans, studies and reports delivered by NACRES in close cooperation with Tusheti PA administration under the UNDP/GEF project: "Catalyzing Financial Sustainability of Protected Areas System of Georgia" have been taken into consideration.

The descriptive part of the management plan was elaborated based on the updated relevant sub-chapters of the first management plan.

Article 7. Terms of Validity of the Management Plan

The management plan is valid from its effective date within a 6-year period.

Article 8. Changes and Update of the Management Plan

1. Changes in the Tusheti PAs management plan are made in accordance with the current legislation.
2. No later than the first quarter of the 6th year of the effective date of the management plan the APA will develop a new management plan, which will be adopted in accordance with the current legislation.

Chapter II: Description

Article 9. Biodiversity

Tusheti is one of the richest regions of Georgia in respect of flora and vegetation. There are more than 1,000 vascular plants from 92 families (Appendix 2). This means that one fourth of all of Georgia's flora species and one sixth of all Caucasian plants are found in Tusheti. The vegetation cover includes forests, subalpine forest, alpine and subalpine meadows, subalpine shrub, subnival

vegetation and scree vegetation complexes. Each of these vegetation classes are in turn represented by numerous variants differing in structure and species composition.

The flora of Tusheti includes numerous rare species of which 4 are included in the Georgian Red List (Appendix 3). In addition there are plant species that are regionally rare. These include species that are found in the Caucasus in isolation from their main global range.

The level of endemism (proportion of endemic species) is especially high among the plant species. The flora of Tusheti includes 11 Georgian endemics and 230 Caucasian endemics which means that 22.5% of all species found in Tusheti are either Georgian or Caucasian endemics. In addition at least 8 of them are believed to be extremely rare.

The mammalian fauna is also diverse. A total of 32 small, medium-sized and large mammal species have been recorded (Appendix 2). The ungulate community is noteworthy. It includes Bezoar (Wild) goat (*Capra aegagrus*) the only more or less viable population of which only remains in Tusheti and the Caucasian endemic East Caucasian Tur (*Capra cylindricornis*). There is also Chamois (*Rupicapra rupicapra*), Roe deer (*Capreolus capreolus*), Wild Boar (*Sus scrofa*) and Red Deer (*Cervus elaphus*) although no confirmed recent data exist about the presence of Red deer. Tusheti is also rich in large carnivores. There are Brown Bear (*Ursus arctos*), Gray Wolf (*Canis lupus*), lynx (*Lynx lynx*) and possibly also Caucasian Leopard (*Panthera pardus ciscaucasica*). Among small mammals there are such endemic species as Caucasus pine vole, Daghestan pine vole (*Microtus (Terricola) daghestanicus*), Caucasian snow vole (*Chionomis gud*), Radde's shrew (*Sorex raddei*), Caucasian pygmy shrew (*Sorex volnuchini*).

According to available data, there are a total of 90 bird species in Tusheti (Appendix 2). Of primary importance are the Caucasian endemics: Caucasian black grouse (*Tetrao mlokosiewiczi*) and Caucasian snowcock (*Tetraogallus Caucasicus*). There are six species from the Georgian Red List, among them one species - Black Vulture (*Aegypius monachus*) is globally threatened and is included in the IUCN Red List as Near Threatened (NT). Tusheti is rich in large birds of prey. Such species as Bearded vulture (*Gypaetus barbatus*), Griffon Vulture (*Gyps fulvus*), Goshawk (*Accipiter gentilis*), Sparrowhawk (*Accipiter nisus*), Kestrel (*Falco tinnunculus*), Golden eagle (*Aquila chrysaetos*) as well as aforementioned black vulture are commonly seen in Tusheti. There are also almost all the Georgian bird species that are important for international birdwatching. In addition to aforementioned Caucasian black grouse and Caucasian snowcock, these include Caucasian Chiffchaff (*Phylloscopus lorenzii*), Green Warbler (*Phylloscopus nitidus*), Red-fronted Serin (*Serinus pusillus*), and Great Rosefinches (*Carpodacus rubicilla*).

Information is scarce on other groups of vertebrates. There are at least 3 reptile species and at least 4 amphibians and only one fish species – River trout (Appendix 2).

Almost no data exist on invertebrates. A very superficial assessment has indicated very high richness in butterflies. The globally rare Mountain Apollo (*Parnassius apollo*) as well as the endangered endemic Caucasian Apollo - *Parnassius nordmanni*, have been recorded.

In addition to wild biodiversity Tusheti is rich in domestic plant and animal species. The region is the site of origin of three endemic breeds: Tushetian horse, Tushetian sheep and Georgian sheepdog, as well as of several endemic domestic plant varieties. Among them the endemic barley "Kershveli" is noteworthy. Due to its morphological and other characteristics this variety is a valuable component of Georgia's agro-biodiversity.

Article 10. Landscapes and habitats

The mountainous landscape of Tusheti represents a mosaic of forests, subalpine shrubbery, subalpine and alpine meadows, subnival areas and nival zone with permanent snow cover. The landscape in its present form is a result of the combined action of various landscape generating natural forces (e.g. geological, geographical and biogeographical, climatic, etc) and historical human influence.

Habitat classification presented below has been largely based upon the physical features and visual characteristics as well as on the coarse classification of vegetation

Forest habitats: Forest habitats in Tusheti are mainly found in the form of pine forest of *Pinus cochiana*. Birch forest covers a smaller percentage while deciduous mixed forest has even more limited distribution. The total area of the forests found within the National park and Nature Reserve is approximately 20 thousand hectares. The forest belt is represented by the upper forest zone at 1650 m.a.s.l. to 1800-1900 m.a.s.l. Subalpine forests are found at the altitudinal range between 1800-1900 and 2500-2600 m.a.s.l. Birch forests (including crook-stem subalpine birch forest) are found at the altitudinal range 1700 to 2400 m.a.s.l. on average (in certain parts the upper tree line is at 2500-2600 m.a.s.l.). Most common type of birch forest is composed of *Betula pendula* and this is found mainly on northern aspects. An important proportion of the birch forest is also composed by Litvinov's birch (*Betula litwinowii*).

Subalpine shrubbery: These habitats are represented by Caucasian rhododendron (*Rhododendron caucasicum*) communities found at the altitudes of 2400-2800 m.a.s.l. Larger fragments of this shrubbery are developed as a strap along the Pirikita gorge just above subalpine forests at 2600-2800 m.a.s.l.

Alpine and subalpine meadows: Meadows are a dominant feature of the Tusheti landscape covering about 70,000 ha in total. Of this about 37,000 ha are found within NP and NR. They are especially widespread in the upper reaches of the Pirikita Alazani. There are a number of variants of meadow habitats in Tusheti.

Subnival habitats and nival zone: Subnival habitats with characteristic vegetation are well represented on Atsunta and Pirikita ranges, namely at the Tebulo, Amugo and Diklo mountainous massifs. Subnival vegetation is poorly represented on the main watershed range. The nival zone with permanent snow and glaciers is found above 3400 m.a.s.l.

Article 11. Geology and hydrology

Both gorges (the Pirikita Alazani and the Gometsari Alazani) and the Makratela range are composed of Jurassic sedentary rock. Significant piles of limestone travertine is noteworthy. It is found in the Pirikita Alazani gorge near village Dartlo.

The geomorphology of this rugged region has been largely defined by river erosion and past glaciations. The upper reaches of the two Alazani rivers are especially influenced by quaternary glaciers where glacier systems (gorges) and morenic deposits are evident. Quaternary glaciations have left trace not only in Pirikita Gorge and Makratela range, but also on the main range of the Great Caucasus. Various glacial forms (including theatres) are found at the altitude of 2,700 m.a.s.l.

In eastern parts of the region, the difference between the altitudes is more than 2500 m (the lowest point being at 1600 m.a.s.l. and the highest *mt. Diklo* at 4,275 m.a.s.l.). At the confluence of the two Alazanis, in the areas of villages Omalo, Shenako and Diklo, there are relic denudated planes.

Physically the region represents a depression comprised of two valleys, basins of Pirikita Alazani and Gometsari Alazani. Divided by Nokaich-Makratela watershed which stems out of Atsunta range at the mount Amugo massif, the two basins open toward the East and end at the Omalo plateau where the two rivers (the two Alazanis) converge at 1600 m.a.s.l.

The major tributary of the Pirikita Alazani is the river Larovanis-tskali, and those of Gometsari Alazani are: (right tributaries), the Khisos-tskali (flowing into the Chanchachovani gorge), the Ortskali and the Kibdukhis-khevi, (left tributaries) the Tsovatistskali and Samarovnistskali. After the two rivers merge the Tusheti Alazani is joined by the Chigoskhais-tskali, the Didkhevi, the Cheroskhais-tskali and the Parsmiskhevi. There are also numerous small rivers, streams and springs. Most of the rivers at least partially freeze during the winter.

There are numerous small lakes of various origin in Tusheti. In the subalpine zone of the upper reaches of the Ortskali river there are small glacial lakes (less than 20 m in diameter). Small lakes are found in the upper reaches of the Shavkildi and Vebu rivers too. There is also a permanently frozen glacial lake at the sources of the Kaloani river, a tributary of the Chigo river.

There are highland marshes near villages Shenako, Omalo, Diklo, Tursiekhi and Khakhabu. Most of them must have been formed in the place of small lakes and presently feed on subterranean waters.

Tusheti is rich in natural mineral waters of various contents. For example the Chigo spring is extremely brackish. Acidic springs are found at the bottom of the Vedzis Gora. Waters with a basic reaction are found at villages Omalo, Shenako, Parsma, Chotio, etc. Springs with high iron content are found at villages Dochu and Khakhabo.

Article 12. Climate

The region is characterized by a temperate humid climate with relatively dry cold winters and short summers. Continental climate especially dominates the eastern parts of Tusheti. However, local conditions (mainly precipitation) significantly vary from location to location with relief forms and altitude. For example on the Sakorne pass (2970 m.a.s.l.) the annual precipitation is 1631 mm, in the

Ortsklali gorge (2260 m.a.s.l.) it is 1064 mm, in other parts it varies within 700-900 mm. In general the main range of the Great Caucasus and Gometzari Alazani gorge is more humid (by approximately 10%) than is the Pirikita Alazani gorge (this is clearly reflected in the water regimes of the two rivers). This difference is accounted for by the fact that humidity is mostly created by southerly air masses.

Protected by high mountains from the north and the south, the Tusheti depression is characterized by dry climate and calm weather. For example in Omalo (one of the warmest and driest places in Tusheti) the average annual temperature is 3.5°C. The average temperature for January is -9.1°C and for August 14.2 °C. Temperature may fall below zero even in August. The absolute maximum however is 31°C and absolute minimum is -36°C. Annual mean precipitation is 748 mm. Most of the precipitation occurs during the warmest period of year, April to September.

The depth and distribution pattern of snow cover (including permanent glaciers) depends not only upon precipitation levels but also on local relief, prevailing wind speed and direction.

Varying mainly with altitude the following local climatic conditions are distinguished in Tusheti:

- Humid climate with cold winter and short summer - 1600-2000 m.a.s.l.
- Intermediary montane climate with cold winter and short summer (2000 - 2400 m.a.s.l.)
- Humid high mountain climate without real summer season (2400 - 3400 m.a.s.l.)
- Humid high mountain climate with permanent snow cover and glaciers and with subzero mean temperatures for all months (above 3400 m.a.s.l.)

Article 13. Tourism and recreational potential

1. The combination of wilderness, mountain and forest landscapes, rich biodiversity, history and culture attracts visitors of various nationalities, age and interests.

2. The pine forests of Tusheti coupled with high mountain climate create opportunities for the development of medical tourism.

3. A wide range of tourist activities are available on the PA: hiking and horseback trails (suitable for multi-day trips), mountain biking, viewing of natural and cultural landscapes, photography tours, education and cultural tours, bird and other wildlife watching, including large ungulate watching, summer camping.

4. The PA administration has established partnerships with local service providers. Local communities and local businesses offer visitors a variety of services such as accommodation, horse rental, guiding, catering and transportation.

Article 14. Traditional activities and sustainable use of natural resources

The present-day sheep farming in Tusheti is entirely based on a transhumant system. Tushetian sheep herders use high mountain graze lands in Tusheti as summer pastures and migrate to the lowlands (Shiraki in the south-east of the country) in winter. This pattern originated in 17th century and it entirely depends on natural pastures for food for the sheep, hence the distinct seasonality of the grazing system. Until 1950's Tushetians still retained their traditional lifestyle - while engaged in transhumant sheep farming other livestock and agricultural activities were maintained in Tusheti and there was a permanent human population in the region.

The traditional land use strictly followed a vertical zoning. All land was divided into zones with different agricultural use purposes. Plot rotation schemes were also widely applied. This patterns of land use ensured soil maintenance and sustainable use of both cultivated and graze lands.

Since 1960s the above traditional grazing system was entirely abandoned. Soviet economy demanded an increase of sheep numbers and neglected local traditions and ecological conditions. The original zoning of pasturelands and pasture rotation schemes were abandoned causing serious deterioration of both summer and winter pastures. Land degradation is particularly evident in the plots previously used for cultivation but presently used for livestock grazing. All of this caused major shifts in the traditional life-style. Crop production was abandoned and all Tushetians switched to a transhumant life-style i.e. spending the winter season in the lowlands and only returning to Tusheti for the summer.

Traditional hunting

In the past hunting was an important source of food but it also had cultural importance and was associated with the climbing ability and overall physical and psychological fitness of an adult man. All hunting was strictly regulated by rules and restrictions. Traditional hunting was a perfect example of sustainable use of biological resources. Presently this practice as well as the rules defining its sustainability are forgotten.

Sacred forests

The phenomenon of sacred forest is still found in Tusheti and elsewhere in the high mountains of Georgia. In fact these are "reserves" created and protected due to religious considerations and represent an example of effective protection and sustainable use of forest resources. Sacred forests are almost intact forest stands often distinguished by high aesthetic value and rich biodiversity. Sacred forests may also represent an example of local forest that has avoided any major human influence completely or over a long period of time.

Traditional handicrafts

Tusheti is famous for a variety of handicrafts that are popular with visitors, both Georgian and foreign. Tushetian handicrafts carpets such as hats, socks, bags and clothing with characteristic ornamentation are made of wool and natural dyes, furniture and other household items are made of wood.

Present use of natural resources

At present the local population use biological resources including fuel wood, timber, mushrooms, berries, herbs, fish etc. apparently in very small quantities and only for self-consumption. These natural resources make up only an insignificant share of their incomes.

Timber (fuel wood, construction timber) is mainly collected from the protected landscape. Fuel wood is the main resource for cooking and heating.

According to the local population after the ban of hunting as protected areas were established, local Tushetians practically no longer engage in hunting and all incidences of illegal hunting should be attributed to visiting hunters.

Article 15. Historical and cultural values

Tusheti is remarkably rich in historical and cultural heritage. Geographical isolation and characteristic life-style have accounted for a unique culture and traditions. Tushetian life-style and traditions not only make the region attractive to visitors but also offer examples of sustainable use of resources. Therefore they are of primary importance to the management of both the national park and protected landscape.

The majority of the historical (architectural) sites are located on the protected landscape. There is only one architectural site the Sikvarulis Tsikhe (Castle of Love). In general the local architecture has the following main categories: Human settlements including churches and other religious sites (so called jvar-khatis, churches), defence structures (castles and towers) and archaeological sites.

Article 16. Potential of environmental education

From the scientific and educational viewpoints the variety of landscapes and plant communities, the diversity of wild species, their high endemism create perfect opportunities for scientific research as well as for education, open air teaching for school children, and for teaching "code of conduct" in nature. Tusheti has always attracted many generations of Georgian, Russian as well as foreign botanists since it is believed that understanding the local flora may lead to the understanding of the historical formation of the flora of the whole Caucasus region.

Tusheti offers unique opportunities for plant and animal research (within the limitations set by law) as well as for school and university field practical.

Article 17. Public Relations

The future of the Tusheti PAs and the local communities are interlinked. The local people through their activities impact both the NP and PL. The PAs in turn set certain limitations and restrictions. Therefore it is critical to demonstrate to the local communities the importance of the PAs and the rationale behind the restrictions.

Notably recent surveys showed that the environmental awareness of the local communities is rather high. Many Tushetians believe that there have always been protected areas of some form in Tusheti (e.g. sacred forest) and local traditions implied protection and sustainable use of natural resources.

Article 18. Socio-economical aspects

Demography

There are no human settlements on the State Nature Reserve or National Park. All villages are situated on the Protected Landscape.

The human population of the Tusheti region has gradually declined since 18th century when Tushetians began to move to the lowlands. Despite the fact that many of the Tushetians led a transhumant lifestyle as sheep farmers, their families and many others still lived in Tusheti on a permanent basis. A major change occurred in 1950s. In order to strengthen its power in this remote mountainous region, the Soviet government decided to deliberately destroy the traditional life-style in Tusheti. Almost all Tushetians switched to a seasonal transhumant lifestyle. They spend the winter season in the lowlands and return to Tusheti only in early spring for the summer season.

At present most Tushetians live in three lowland villages: Zemo Alvani, Kvemo Alvani and Laliskuri. During the summer season they are distributed in up to 50 villages of Tusheti in four main gorges, representing four main communities: Chagma, Gometsari, Tsovata and Pirikita. The numbers of Tushetians staying in Tusheti over the winter usually varies from year to year.

Economical activities

The survey conducted in 2010 that involved almost all Tushetian villages showed that approximately half of the households (46.9%) are engaged in some economic activities in Tusheti. Most of the activities (82.8%) have to do with tourism, 13.8% are shepherds. On the other hand according to the shepherds, 60-70% of Tushetian households are engaged in sheep breeding, with the flocks of 300-400 heads per household on average. According to a very rough estimate the Tushetians currently own a total of 40 thousand sheep.

At present, the famous Guda cheese and lamb meat are the most valuable goods bringing income to the shepherds. The demand in wool is minimal.

Tushetians use natural wool and dyes to make traditional carpets, socks, bags and other clothing that are popular with national and international tourists.

Chapter III: Long-term Targets

Article 19. Targets Related to the Status of the Natural Ecosystems, Landscapes and Living Organisms

Unique natural and semi-natural landscapes and habitats of the Tusheti PA are preserved; The conservation of plant and animal populations is carried out virtually in natural and intact environment; the conservation of unique alpine, sub-alpine and sub-nival vegetation complexes, rich endemic species is ensured; Pine forest stands are preserved and their condition enhanced – not only is the total area maintained, but also the structure.

Article 20. Targets Related to the Status of the Genetic Pool and Biodiversity, and that of Wild Animal and Plant Species included in the Georgian Red List

The flora and fauna of Tusheti PA consist of tens of red list species and Caucasian as well as Georgian endemic species (the Wild goat population of Tusheti is the only viable one in all Georgia). Tusheti PA successfully perform the function of effective and long-term preservation of the genetic pool of this species; the populations of the key species (Wild Goat, East Georgian Tur) are increased and approach their respective carrying capacities.

Article 21. Targets Related to Education and Creation of Relevant Field Conditions for Scientific Research

Adequate Conditions are created in Tusheti PA for carrying out environmental protection and educational activities and, scientific research.

Article 22. Targets Related to Creating Favourable Conditions for Recreation, Medical Tourism and Tourism in Natural and Historical-cultural Environment

In Tusheti PA, with direct participation of local communities, nature-based sustainable tourism succeeds well and clean and safe environment is ensured for visitors; Revenues generated from tourism sector contribute significantly to financing of PA operational costs.

Article 23. Targets Related to the Protection, Revival and Development of Traditional Economy and Preservation of Unique Historical-cultural Environment

Tusheti PA represents the vivid example and the logical outcome of harmonious relationship between man and nature nurtured through the centuries – traditional economic activities based on sustainable use of natural resources (in particular pastures) are maintained and if feasible revived that does not hinder the effective and long-term preservation of the genetic pool of Georgian red list species.

Article 24. Targets Related to the Sustainable Utilization of Natural Resources

The PA supports the wellbeing of local population and ensures sustainable use of natural resources by the local population in order to sustain their livelihoods. On the other hand, alternative revenue

sources are generated from non-consumptive forms of natural resource use (e.g. nature-based tourism is progressing well), in order to reduce the dependence of local population on natural resources.

Article 25. Targets Related to the Development of Administration

Tusheti PA administration, staffed with qualified personnel and supplied with adequate financial and technical resources ensures effective management of Tusheti PAs.

Article 26. Targets Related to the Protected Landscape (Local Municipal Government)

In the light of close cooperation between the administration of Tusheti PA and that of the Protected Landscape (local municipal government) current processes and activities carried out in the Protected Landscape are in harmony with the goals and objectives of the PA.

Chapter IV: Background Situation

Article 27. Conservation and Sustainable Utilization of Natural Resources

1. Status of the Key Habitats and Species

The diversity and the distribution patterns of Tusheti habitats and vegetation are pre-conditioned not only by historical and current environmental conditions, but also by past and present anthropogenic pressures. Human influence is particularly evident in high mountainous and sub-alpine zones. Due to terrain and climatic conditions these areas are most suitable for humans to live and to carry out agriculture activities.

In 1950s, the total area of crop farming declined significantly and formerly cultivated lands were transformed into pastures. Re-vegetation process in those areas occurred under continuous grazing pressures that significantly hindered the ecosystem restoration and accelerated the erosion processes. The natural structure of the vegetation cover was destroyed and the low productivity secondary meadows became predominant there. Such vegetation occupies large areas in Pirikita Alazani gorge, from village Chigo to Kvakhidi and, in Gometsari Alazani gorge, from village Bochorma to Tsova; also, it is found in Tschantchakhovani gorge and Vebu-Oreti ridges.

About 20% of Tusheti is covered with forests. Historically, relatively dry pine forests – predominantly pine groves with grass understory were more widely distributed in Tusheti. Presumably, their location was favourable for arable farming and therefore, forests were cleared entirely. Secondary grassy meadows are currently found there. In some places pine forest is expanding as a result of changing in grazing patterns. If this trend is maintained, natural regeneration process may become irreversible and the total area of pine forests may increase. The current ecological status of pine forest is not studied. The same applies to other types of forests and rhododendron shrubberies.

Tusheti flora is represented by a number of endemic, rare and relic species, which are currently endangered. There are also rare plant species of the Caucasus that occur in the Caucasus in isolation from their main global range. They are as important for understanding the flora of the Region as are

relic or endemic species. There are the following rare, endemic and endangered species in Tusheti PA: *Silene humilis*, *Primula luteola*, *Gymnadenia conopsea*, *Ulmus glabra*, *Arabis mollis*, *Vavilovia formosa*.

Wild Goat (*Capra aegagrus*)

Nowadays, the summer range of the wild (bezoar) goat is determined in Tusheti PA (see map, appendix 4). According to current data, the maximum altitude for the distribution of this species is 3,200 m. above sea level. At lower altitudes the distribution limit depends on such parameters of the habitat as slope, presence of forest cover and rocky areas. Based on recent data, the total area of the summer range of the wild goat is approximately 96 km². This area consists of not only forests, but also sub-alpine and alpine meadows (non-forested areas), where only adult males are found. Regarding the major section of the habitat covered with forest (here all individuals are found, including females, young and mature males), its total area is approximately 63 km².

The minimum population size of the wild goat in the determined area of distribution is 130 adults. This figure is much higher than that obtained by the 2004 summer survey (95 individuals). This might be indicative of population growth, though it may also be attributed to more detailed and advanced study using modern technologies (camera traps). It is not possible to identify the population trend based only on the results of two separate years. For this purpose the monitoring should continue in the coming years too.

Tur (*Capra cylindricornis*)

In summer, Tur is found in alpine, sub-nival and nival zones. The majority of individuals take shelter in inaccessible areas – nival and sub-nival zones. In summer the tur rarely come down to alpine areas due to the pastures being intensively used for sheep grazing. Indeed, during the summer tur are seldom seen lower than 2,800 m above sea level. It is noteworthy to mention the Tchesho and Chigos Khaas River sources, where large groups of tur take shelter in very remote rocky areas of the sub-nival and nival zones.

The lower limit of the summer range of the tur is apparently the elevation of 2,800 m above sea level. The entire area above this altitude is the tur range (see map, appendix 4). The summer distribution area totals 330 km².

Among all important areas for the tur, the Atsunta ridge (mount Borbalo, mount Amugo and surrounding ridges, Atsunta pass and Madnis Khorkhi) is the most significant. Amugo surroundings, including Nartsapi pass, where the river Larovani takes its origin represent the ideal tur habitat. There are numerous hiding areas in this remote place due to very complex relief. In addition, there are high quality graze lands rich in water and glaciers. All the above makes these territories more attractive to the tur. This is the only place where both male and female individuals are found together throughout the year. Usually, males stay at higher altitudes separate from females during most of the year. In summer, mature males take shelter in remote areas and are very shy. Therefore it is very difficult to spot them.

In general, the advantage of the Atsunta ridge is that the tur habitats occupy vast areas. Numerous places are very difficult or practically impossible to reach during the entire year; in case of disturbance, animals can hide easily in naturally protected areas; in addition, helicopters rarely fly over those areas due to high frequency of unclear skies and foggy weather conditions.

Based on recent survey of the tur range and past estimates of the density (2.26 individuals per km²), the approximate number of tur in Tusheti is 750.

2. Current Threats to Biodiversity

Grazing

Livestock grazing poses significant threats to biodiversity. Traditional agricultural consisted of crop and land rotation and terracing the lands. These practices were abandoned during the Soviet period as a result of which pastures degraded and soils eroded (formerly cultivated lands were especially vulnerable). Livestock grazing takes place on about 80% of meadows of the Tusheti PA. Sheep grazing has both direct and indirect impacts on wildlife and spatial distribution of species – some species are forced to use higher altitudes to escape the disturbance.

Sheep breeding is the most important component of the Tush culture and this itself had significant impact on natural ecosystems. However, sheep became an integral part of Tusheti ecosystems over centuries and now also represent an important food base for carnivores.

Grazing is only allowed in traditional use zone of the Tusheti National Park (Appendix 5). According to the PA administration, shepherds follow this rule, though there are some cases of grazing in NR. Livestock migration routes cross the reserve, which complicates law enforcement.

Poaching

The real level of poaching within the Tusheti PA is unknown, due to the lack of patrolling and law enforcement data. It is probable that the level of illegal hunting is relatively high in Speroza section due to the easy access to this area (after the first snow this area is not accessible as well). Mostly, the following key species are affected by hunting: wild goat, tur and probably also brown bear.

Based on present information, hunting intensity depends on the time span of road availability. Though, risks associated with illegal hunting change with game species and seasons. For instance, in specific areas with high tourist flow and people's travel in summer time and in September poachers avoid hunting in the forests surrounding the villages, though they still put snares or they simply remain there after spring. Most likely, the risk is highest in spring and early summer as well as by the end of the tourist season and right after its completion. In relatively remote inaccessible areas with low tourist flow the hunting risk might be constantly high. Overall, it can be assumed that the risks of illegal hunting are the highest in May-June and October coinciding with sheep movement to and from pastures.

According to locals, Tushetians do not hunt any more and all hunting is done by hunters coming from other areas. However, one cannot fully exclude the probability of hunting by shepherd and

locals. Some shepherds have guns, which according to them they have to use against predators. Regarding the Pankisi section, local Kyst men hunt almost entire year or guide hunters from other regions. However, they avoid hunting in the NP.

Logging

Tushetians are allowed to cut wood for fire or collect fallen trees within the traditional use zone of the National Park (Appendix 5). However, it is prohibited to use any natural resource within NR and to cut standing trees in the forests of NP.

Historically, logging had a serious impact on the formation of Tusheti landscapes. In recent years, with the establishment of Tusheti PA, illegal logging declined, which is caused by several factors: (i) consultations with local community, (ii) setting stringent penalties and, (iii) the creation of more effective control mechanism. However, it is difficult to say that illegal logging is eradicated completely in NR, drawbacks of zoning being one of the reasons for this.

3. Landscapes Linkages through Sheep Farming

Tusheti is located on the north of the Greater Caucasus. However, due to the seasonal sheep grazing it is linked to the winter pastures and to Vashlovani PA located in extreme south-east of Georgia some 200 km from Tusheti. These two PAs share common cultural and ecological heritage. The entire corridor between the PAs is rich in biodiversity.

4. Activities Carried Out in 2006-2011

During the terms of validity of the previous management plan (2006-2011) the entire strategy for conservation and restoration of natural heritage (including natural resources) was focused on the development of law enforcement system and relevant infrastructure, which was considered as critical condition for carrying out its responsibilities by the administration of Tusheti PAs, prescribed by the law.

Currently, the law enforcement infrastructure consists of Samkhevi, Speroza and Kvakhidistskali rangers' stations together with demarcation between the Tusheti NR and the NP. Demarcation of major zones is complete. However, it is necessary to solve the issues of incorrect demarcation and other problems of spatial planning. This will significantly reduce illegal grazing and logging and will promote effective control.

At present, rangers' service is established and operational. Through intensive trainings, rangers gained relevant knowledge and skills as well as an experience in working with natural resources users and local population. Jointly with relevant experts, the administration of Tusheti PA elaborated law enforcement strategy, which will significantly improve the protection of species and habitats.

5. Problem Analysis

The administration of Tusheti PA faces the following major challenges with regard to protection and conservation, recovery and sustainable utilization of biodiversity: limited resources of protection

service and insufficient number of staff; illegal grazing and issues related to pasture management; illegal logging, problems related to the management of protected landscape; In addition, regional instability, limited knowledge of legislation by local population, wild fires and poaching are considered as significant issues.

Capacities of the Protection Service: Tusheti PA suffer from insufficient number of rangers. There are a total of 28 staff positions in the Ranger's Service (15 permanent and 13 seasonal). However, until now only part of the positions is filled (local population is less interested in becoming a ranger due to low salaries and the seasonal character of the job). The team of the rangers lacks necessary skills, resources and infrastructure for effective patrolling and protecting the PA. Respectively, the capacity of the service is inadequate. Rangers' capacities are also limited in terms of search and rescue operations. Retaining of experienced and skilled rangers is directly related to institutional capacities of Tusheti PA with regards to the site protection and monitoring.

Pasture Management: Pasture degradation and erosion is one of the critical issues within the traditional use zone of the National Park (annex #5). Local herders sometimes graze their livestock in the areas where such activities are banned. The lack of demarcation signage, information banners and buffer zones may be considered as main reasons for this. Livestock migration routes are also poorly organized due to which it is impossible to achieve an orderly movement of livestock to cause minimum damage to the environment. On 22 March 2011, changes were made in spatial zoning of Tusheti PA that resulted in reclassification of some sections. This will partially address the above problems.

It is impossible to achieve sustainable utilization of pastures and restoration of degraded areas without detailed inventory of degraded lands and development of pasture management plans.

Forest Management: Georgian legislation allows local population to use timber resources available in the forests of the National Park (Appendix 5) and the Protected Landscape (#242 GoG Decision, 20 August 2010). Recently, illegal logging has declined significantly due to enhanced law enforcement and better communications with local villagers. However, the lack of support zones encourage illegal cutting of trees. In addition, it has to be noted that the last forest inventory was conducted 30 years ago in Tusheti. Since then, significant changes have occurred in forest distribution and composition. Outdated forest management plan together with associated maps hinder effective law enforcement and mislead the local users of timber resources.

Recent reclassification changes made in the spatial plan of the Tusheti PA, referred not only to the above-mentioned pastures, but also to the specific segments of local forests. This in turn will contribute to addressing essential needs of local population and resolving the conflicts related to the use of timber resources. However, some gaps still remain in the spatial planning of Tusheti PA as a result of which on-the-ground implementation of protection regime is much complicated. In accordance with the new plan, the first priority issue is a demarcation and identification of PA boundaries. Previous borders of the Tusheti PA zones coincided with forest boundaries, which were easy to identify. Current borders frequently cross through forest stands and do not coincide with any natural border. This creates the situation, in which it is very difficult to recognize the real border of Tusheti Strict Nature Reserve not only by local inhabitants and visitors but also by Tusheti PA staff.

Under such circumstances, legal and factual status of various sections of the reserve become uncertain. Along with this, the total length of the perimeter of the nature reserve exceeds 200 km, which makes it very difficult to enforce the protection regime there.

Poaching: poaching still remains one of the most complex issues. The real scale of poaching in Tusheti PA is not known. The tur and wild goats are major targets of the poachers. It seems that locals do not hunt much in Tusheti and major hunting activities are carried out by people coming from elsewhere. Fishing by using illegal methods creates serious threats to the only fish species, river trout found in Tusheti.

Forest Fires: forest fires represent serious threat to Tusheti PA (Appendix 6). In majority of cases fires are caused by natural factors. Hence the situation may aggravate as a result of on-going climate change. Increase in tourist inflow may also contribute to the increased risk of wild fires. Respectively, it is necessary to monitor it and build the fire fighting capacity of the Protection Service, in order for its staff to identify and eliminate fire sources in time.

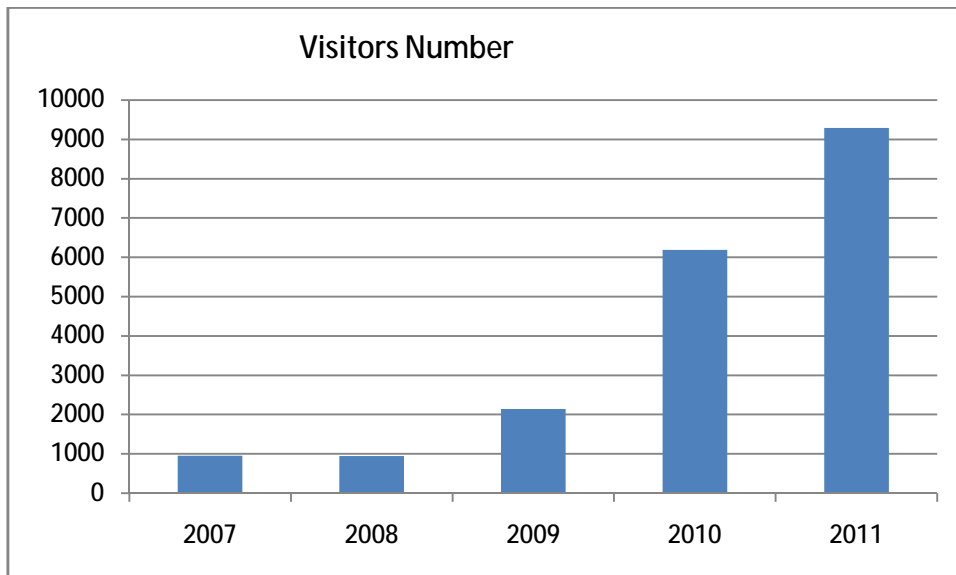
Regional Instability and Conflicts: political instability of the Northern Caucasus causes the need of concentration of large number of border defence forces in Tusheti. This hinders the development of tourism and biodiversity conservation at the regional level. TPA border Dagestan and Chechnya republics of the Russian Federation. Trans-boundary cooperation with these republics could have positive effect on the management of species and ecosystems. Such cooperation is only possible in the future. However, some steps are made towards this direction.

Management of Protected Landscape: The administration of TPA can not resolve the issues related to the management of the protected landscape, since its responsibilities are limited by monitoring and providing information to the Akhmeta municipal government. A special unit, the administration of Tusheti Protected Landscape, responsible for the management of Tusheti Protected Landscape was recently established within the local municipality. However, the capacity of this unit is very limited. It is noteworthy that the process of development of the management plan for Tusheti Protected Landscape has recently been initiated.

Needs for the Management at the Landscape Level: transhumant sheep farming has caused the creation of close ecological and cultural linkages between Tusheti and Vashlovani PAs. Development of a holistic vision and implementation of coordinated actions may become the best solution for the problems related to sustainable use of natural resources. There is a risk of problem displacement as opposed to its solving from one PA to another, if the issue is addressed only within single PA. In order to avoid this risk it is necessary to promote close cooperation between the two parks. This will also reduce duplication of efforts and create a basis for application of integrated landscape approaches.

Article 28. Tourism and Recreation

During the Soviet period, Tusheti was annually visited by large numbers of tourists from the Soviet Union as well as from abroad. Since the break-up of the Soviet Union, the tourist flow has declined dramatically. Since 2004, however, a growth of visitor numbers has been observed.



Currently, there are more than 30 guesthouses in Tusheti, located in 12 villages. In total, more than 350 persons can be accommodated in those guesthouses. The largest number is in Zemo and Kvemo Omalo, 11 guesthouses which may accommodate up to 130 visitor at a time.

The major tourist season in Tusheti is the period from July to September. The majority of tourists choose horseback and walking trails. Tourists rent horses in Tusheti and have local villagers as their tour guides.

Although there is a limited possibility to travel by air, the main means of travel by the long and complicated road, which is open only in summer period. This is one of the biggest impediments towards development of successful and long-term tourism opportunities, since it significantly limits the duration of tourism season and various tourist activities.

In 2008, an important investment was made in rapid development of tourist infrastructure and visitors service system. The administrative building of TPA was open in Omalo in 2009. It also includes visitors' centre with an exhibition hall, hotel rooms, cafeteria, conference hall, and interpreting and information boards. In addition, 12 tourist trails were established, with only 3 being equipped with information and interpretation boards. Public toilets were built near Omalo and 2 camp sites were organized.

Marketing activities were carried out and partnerships were established with local, national and international NGOs and donor organizations.

Problems Analysis

Tourism and recreation represent important components of the scope of work of the park administration. First of all, it should be noted that usually visitors stay in protected landscape, but use the national park for recreation. Therefore, it is necessary to develop a joint comprehensive approach towards tourism management. According to recent studies¹, tourists flow is likely to

¹ Tusheti PAs Marketing and Tourism Development Sub-Plan, NACRES, 2011, (UNDP/GEF)

increase in the future. This, itself will put higher pressure on the insufficient infrastructure, management system and human resources of the park administration. Moreover, inadequate means and services will not satisfy needs and expectations of visitors particularly, foreigners (whose percentage share based on the last years' statistics and existing trend, will make up 50% of all visitors). This will negatively affect the future development of tourism sector. In TPA, the main problems of tourism management and development are as follows:

Poor quality/insufficient infrastructure: Tourism and recreation infrastructure is inadequate. Of all 12 tourist trails, only 3 are equipped with certain infrastructure. Two trails are already overloaded affecting negatively the trail condition. Some signs are not installed correctly. None of the camp sites meets international standards – there is no drinking water, toilets or waste containers there. The trail system needs immediate upgrade and installation of necessary signs and information boards. Camp sites should be renovated to meet the needs of international visitors. It is necessary to advertise renovated touristic trails and camp sites, in order to properly distribute visitors among various sites and trails and reduce negative pressures on the trails.

Lack of the Seasonal Guides: the lack of the qualified seasonal guides is one of the critical issues for the local tourism sector. The majority of applicants do not know foreign languages. Due to the low salary, only few guides were recruited recently. Qualified guides play key part in satisfying visitors and assuring visitors' proper management. Good guides help park administration control, monitor and assure the security of visitors. Therefore, proper conditions should be created for attracting and retaining the guides. Foreign language (mostly English language) courses should be an integral part of the guides' training.

Deterioration of the quality of guesthouses and ineffective system of booking: park administration does not have a system for hotel booking. Owners of guesthouses communicate with potential visitors on a daily basis, in order to reserve rooms and get necessary data about their clients. The deterioration of guesthouse service quality is a recent trend. Standards and skills of the hosts should be constantly upgraded in order to keep the high quality service.

Lack of the Rescue Service: quality service includes assuring the visitors' health and safety. As it was mentioned above, the park administration does not have the capacity of rescue operations and this issue needs an immediate resolution.

Assessment of Carrying Capacity for Tourist Flow: increased number of visitors may have serious negative impact on Tusheti's natural and socio-cultural environment. Carrying capacity of the area is not evaluated. In addition, there is no system for tourists impact monitoring. These two factors are critical for ensuring the sustainability of tourism and recreation in Tusheti.

Article 29. Eco-education and Awareness Raising

Raising public awareness and eco-education on Tusheti natural and cultural heritage is an immediate objective. In addition, it is necessary to better reveal the Tusheti role in protecting the natural and cultural heritage of Georgia. Properly planned eco-educational activities will have a positive impact

on every person regardless of his/her age, since the opportunity for behaviour change always exists. Moreover, people being sceptical or negative towards nature and culture may become very active proponents of latter two.

TPA virtually is a "field laboratory". Being rich in natural and cultural heritage and vivid natural-cultural landscapes this place creates best opportunities for carrying out eco-educational activities. Park administration has properly functioning information centre in village Omalo with information and interpretation boards, cafeteria and hotel. All these create an ideal basis for indoor and outdoor education.

The majority of eco-educational and awareness raising activities carried out by the park administration are aimed at supporting the operations of the administration, including nature conservation and ecotourism development. Therefore, all divisions of the park administration are engaged into this task. This should not be considered as overlapping functions, but rather as an indicator of the importance of education and awareness in the work of the park administration.

Activities Carried Out in 2006-2011

In terms of environmental education and awareness raising, establishing of information centre in Omalo can be considered as one of the major achievements. Apart from this, in 2006-2011 numerous brochures, information leaflets and maps were produced for visitors; articles were published in national and local newspapers and TV reports broadcasted on TV. The visibility of TPA was increased through the visits of celebrities, including politicians, actors and writers. TPA were presented at Berlin and London international tourist fairs. TPA web-site was created.

Eco-educational activities carried out by the park administration with assistance of partner organizations targeted hundreds of kids and teenagers. Ecological camps were organized, eco-lessons were organized at schools and lectures were organized at Telavi State University. Pilot project on "Young Rangers" was implemented. TPA communications and public outreach strategy was developed, which defines future directions for communications, eco-education and awareness rising.

Association: "Friends of the Tusheti Protected Areas" was established, which actively cooperates with the park administration and implements projects aiming at awareness raising and public participation.

Problems Analysis

The results of annual surveys carried out by the park administration show that the environmental awareness of local people is still low. There is no relevant infrastructure to organize regular eco-camps.

In winter, the majority of Tushetians are in lowland villages. Therefore, it is necessary to start large-scale eco-educational programs in Alvani and surrounding villages during the winter time. However, the park administration does not have relevant infrastructure in Alvani.

Article 30. Public Relations

PR activities are conducted by the Marketing and PR Service of APA and the park administration. The PR policy is set by APA. Cooperation with national media is the responsibility of APA and there is very close collaboration with major TV channels.

The following means are used for PR: information materials, APA and TPA web-sites: www.apa.gov.ge; www.tushetionalpark.com; Facebook (Agency of Protected Areas) and YouTube. Major target groups are the media, tour operators, youngsters (students, school children), and middle income population within the 25-60 years age range.

The park administration maintains permanent contacts and cooperates closely with local population. In addition, strong relationships are established with local and regional media.

Currently, the permanent residency for the majority of Tush population is villages of Akhmeta and Telavi municipalities (Zemo Alvani, Kvemo Alvani and Laliskhuri). Only up to 40 people reside permanently in Tusheti (this number is approximate and varies from year to year). Tush people go to Tusheti in summer to carry out agricultural or tourism-related activities, for holidays or to participate in religious festivals. Therefore, Tusheti population is composed of both permanent and seasonal inhabitants.

Both parts of the population use fuel wood/timber, mushrooms, berries, medicinal plants and natural dyes for their own consumption. Over centuries, Tush agriculture activities predetermined the shaped of the Alpine and Sub-Alpine landscapes. Tush culture, including villages, castles, traditions, code of conduct and beliefs is an integral part of local landscapes: all these are the key components of natural and natural-cultural landscapes and determine the uniqueness of the region.

Local population plays critical role in nature protection and contributes to it through voluntary monitoring, fire fighting activities and providing tourist services.

The majority of the staff of the park administration is local Tush population. In addition, Tush are summer seasonal guides and providers of touristic services.

Activities Implemented in 2006-2011

Last years' efforts with regard to public relations were directed towards establishing close and positive relationships with local community. The following outcomes were attained through such efforts: (i) creation of alternative jobs and revenue sources, (ii) increased awareness on the TPA and its importance, (iii) promotion of local culture and traditions through festivals, media, brochures and other publications, (iv) restoration of cultural monuments.

The establishment of TPA imposed certain restrictions on the use of natural resources on the one hand, but it also promoted financial and technical assistance to local population in order to develop tourist services (e.g. guesthouses, horse rental, etc.).

Promotional activities carried out by APA and the park administration resulted in the increase in visitors' number and created a good basis for employment and revenue growth.

Strong efforts were made to mobilize financial resources and implement projects to solve existing problems. These are: drinking water supply to Tushetian villages; installation of solar systems; support of sheep breeding and veterinary services in winter pastures.

Regardless of initial problems, overall, good relationships were established between the park administration and local population. People are better informed about TPA and environmental issues and are more actively involved in decision-making related to TPA management.

Problems Analysis

Negative attitudes towards legal restrictions as well as perceptions that resource use is unfair and are not based on equality principles, and that views and needs of the local population are not adequately addressed during decision-making, still prevail in Tusheti. The knowledge of local population of TPA goals and objectives, its importance and relevant legislation should be further improved.

Communications with local population: Benefits brought about by the activities of the park administration and various projects are not always delivered and explained to local population. Frequently, the local community is not informed about on-going projects and activities and, does not understand their significance. This causes suspicions towards the park administration and partner organizations and, their activities and motivations.

Population migration: in spite of improved opportunities for employment and businesses, the young population leaves Tusheti and moves to cities or foreign countries in order to improve their social and economic status. Therefore, it is necessary to create, on a permanent basis, local employment opportunities in particular, for the young population. In parallel, it is necessary to support keeping of cultural identity and traditions by these people.

Service standards: local population supports the development of Tusheti, particularly with regard to the tourism. However, recently the quality of services providers deteriorated. Service standards and benefits received from tourists' services can be significantly improved through implementing well-targeted and fine-tuned actions.

Article 31. An Overview of Legal Basis

In accordance with 1996 Georgian law on the System of Protected Areas, TPA was established on 22 April 2003 by the concrete law: Law of Georgia on the Establishment and the Management of Tusheti, Batsara-Babaneuli, Lagodekhi and Vashlovani Protected Areas.

The law on the Protected Areas System is a framework law, which defines six categories of PAs, in accordance with IUCN recommendations. This law regulates issues related to the protection of natural and cultural environment through establishing and managing PAs. In addition, it allows for creating support zones. All activities carried out in PAs are regulated by the relevant legislation and

management plans developed for individual PAs. The law on the Protected Areas System recognizes the exclusive right of the state towards ownership of the state nature reserves, natural parks and natural monuments, including natural resources (land, forests, water, fauna, etc.) located there. Natural-cultural and historical-cultural monuments located within the territories of above PAs are of the state property as well. However, the law allows for other types of ownership in managed reserves, protected landscapes and multi-purpose use areas.

The law defines main objectives, total areas, location and boundaries of the Tusheti PAs; terms and conditions for the management of the state nature reserve; possible zones of the national park (strict protection zone, traditional use zone, visitors' zone, restoration zone and administration zone) and terms and conditions for the management of those zones. The spatial planning (internal zoning) of the national park is defined by the management plan.

In addition to the above-mentioned laws (*Law on the Protected Areas System of Georgia* and *Law on the Establishment and Management of Tusheti, Batsara-Babaneli, Lagodekhi and Vashlovani PAs*), the Tusheti PAs are managed in accordance with the following laws and regulations:

- a) Georgian Law on Georgian Red List and Red Book;
- b) Georgian Forest Code
- c) Georgian Law on Wild Fauna
- d) Georgian Law on Environmental Protection
- e) GoG Decision # 242 on Approval of the Rule on Forest Use", 20 August 2010
- f) #339 GoG Decision "on Approval of the Provision for Defining the Initial Auction Price for and Carrying Out the Public Action for Real Property Concessions of the PAs (excluding protected landscapes and multi-purpose use areas)", 7 September 2011
- g) #2 Decree of the Minister of Environment on the Approval of the Methodology on Calculation of Environmental Damage, 2 February 2011;
- h) #96 Decree of the Minister of Energy and Natural Resources "on the Approval of the Rules for Movement of Timber within the Georgian Territory and the Technical Norms of Saw Mills", 24 June 2011
- i) Other laws and regulations.

Article 32. PA Administration

TPA was created in 2005 as a legal entity of public law. In 2008, as a result of restructuring of the PA system, the TPA became a territorial unit of the Agency for Protected Areas. In accordance with current rules and procedures, TPA financial and human resources are managed by APA. Day-to-date management of the TPA is a sole responsibility of the director of the PAs administration. The administration is divided into two divisions: protection division and administrative division (see diagram below).

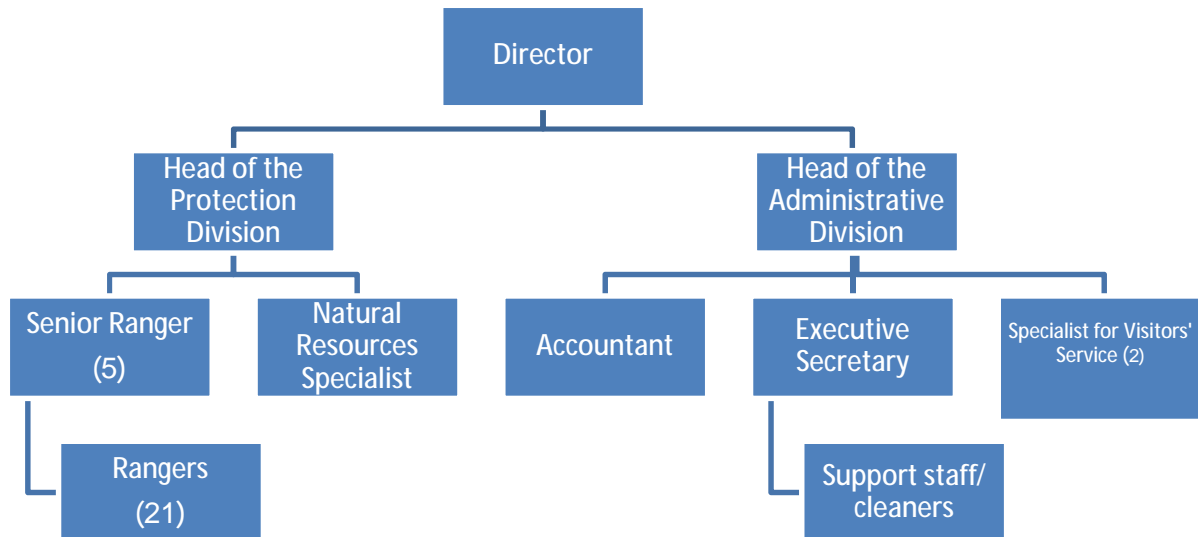


Diagram #1: TPA Administration structure (2011)

Main responsibilities of the staff of the protection division are as follows: physical protection and law enforcement within the boundaries of Tusheti PA; monitoring of the use of natural resources within the protected landscape; awareness raising, participation in biodiversity conservation and monitoring.

Main responsibilities of the administrative unit are as follows: operations of TPA administration, including logistics and procurement, visitors;' service and food supply.

Each staff member of the administrative unit has relevant experience and skills for performing their responsibilities. However, in order to increase the qualification of the staff and as well, to retain the qualified staff it is necessary to conduct staff trainings on a regular basis and to improve their working conditions.

The summer office of the park administration is located in Tusheti and the winter office is in Kvemo Alvani. The summer office was built for the purpose and was open in 2009. It has all the facilities for organizing meetings and trainings. The winter office consists of only three rooms located in the House of Culture of Kvemo Alvani. This space is only enough for placing work desks.

The core budget of the administration is financed by the state and therefore, is stable. However, this budget is not sufficient for carrying out all activities of the administration. From time to time, external finances are added to the core budget. The administration owns only basic infrastructure and resources.

TPA has the following strategic documents and action plans elaborated with active participation of the park administration: TPA management plan, Tourism Development and Marketing Sub-plan, Law Enforcement Strategy and others.

Activities Implemented in 2006-2011

Despite many needs that still need to be addressed, serious achievements were made during 2006-2011. The administration actively works in all directions of the PA management, including law enforcement, protection and monitoring of biodiversity and cultural heritage, tourism and recreation, education and awareness rising and, sociological researches. The administration has close cooperation with the local community and other stakeholders.

The administration created very strong relations with various national or local government entities, including Patrol and Border Police, National Rescue Service, National Tourism Administration, the Ministry of Culture and the Protection of National Monuments, Akhmeta Municipal Government, etc.

The administration cooperates actively with local, national and international NGOs and donor organizations.

Within the last six years, the TPA administration was able to gain support of national and international donors through various projects, which contributed greatly to the development of Tusheti PA. Among the most active donors were the World Bank, UNDP, USAID, projects financed through German and EU financial assistance. These projects were implemented by various local and international organizations (WWF, IUCN, NACRES, FFI, etc.). Sometimes, these organizations also co-financed the project activities. The contribution of the WB/GEF Protected Areas Development Project (2003-2007) was especially significant.

Problems Analysis

Below is the analysis of the most important issues related to the TPA administration.

Staff retaining: this problem is common for all areas, but it is most acute for the protection division. The combination of low salaries and the seasonal nature of the job (half of the rangers are seasonal) reduces the opportunities for attracting and retaining qualified personnel. In addition, it is difficult to provide rangers with food and shelter during their patrolling duty. All of this affects the work of the protection division. Along with this, it is also difficult to hire qualified English speaker seasonal guides and other personnel.

Trainings: in general, it is important to improve the skills and qualifications of the administration's staff. However, special attention should be paid to the capacity building of the protection service. The administrative staff should be trained in bookkeeping, operating accounting computer programs, budget planning, GIS programs, resource mobilization and drafting of project proposals.

Financial resources and time spent on training of the staff is not effective if there is a high risk that the qualified staff leave. Therefore, it is necessary to conduct cost-benefit analysis and based on this, needs and opportunities for improving working conditions should be assessed. This will reduce the staff drain.

Infrastructure: The winter office of the administration does not meet any relevant standards. Possibilities for accommodating visitors are very limited, there is not enough space for organizing meetings, trainings and various events. The most acute issue is the lack of protection infrastructure

including rangers' stations and shelters. Out of total of 11 tourist trails, 8 are not equipped with necessary infrastructure, camp sites and the toilets are in poor condition.

In 2008, the Park Administration and the visitors' centre building was open in Omalo. The building consists of several-room hotel, a conference hall and a cafeteria. In addition to the administrative building, several interpretation boards, trail signs and few toilets were installed. However, walking and horse-riding trails were not restored and renovated. Camp sites were arranged, but currently they are in poor conditions and do not meet international standards (there is no drinking water, toilets and waste bins are absent).

In terms of tourist infrastructure, currently some of the interpreting boards need repair; some distances are not correct or signs are displaced; the majority of walking or horseback trails needs rehabilitation; some of the interpretation boards are installed in a way that it is difficult to read the text written there (such boards should be installed close to the trails and visitors should easily approach them and read the text); road signs are located in large distances from each other and their shortage is particularly evident in high altitudes of TPA. New toilets are not close to water sources. Therefore, it is impossible to keep them clean and to meet basic sanitary-hygienic standards; The visitors' centre needs some renovation; power supply issues should also be resolved (power supply is intermittent in the building that hinders normal operations of the building); there are not enough bridges (visitors use to cross river by foot or by horse, which is not safe); there are no trails for one-day trips for visitors who prefer to stay in hotels (who are not interested or are unable to participate in longer trips).

Respectively, there is very limited infrastructure and poor conditions for safe and pleasant day trips for both hikers and horse-riders. In addition, negative impacts of the tourists on the trails are evident due to the lack of such infrastructure and will increase in the future with a constant growth of tourists number.

Regarding the protection infrastructure, it consists of three rangers stations, including Pankisi gorge (in the south-west of the park), Samkhevi (at the central entrance of the park) and Kvakhidistskali (the building is not completed). The rangers' stations are not enough. Kvakhidistskali station needs to be completed. 2-3 stations should be added in order to make patrolling and protection effective.

Marking of the territory is partially done. There is insufficient number of prohibition and border signs.

Lack of personnel/specialists: there is an immediate need of an ecotourism specialist.

Financial sustainability: it is less probable that the state financing will quickly increase to the level to fully address all the above issues. It is important to create additional sources of revenues, including entrance fees, concessions, fees for the use of pastures, etc.

Issues related to the utilization of natural resources in protected landscape: the TPA administration is tasked to monitor the use of natural resources within the protected landscape, promote the tourism and conduct public opinions' surveys. The local municipality has initiated the development

of the organization structure and the management plan for Tusheti Protected Landscape. The Park administration will be actively engaged into and will support this process.

Article 33. Research and Monitoring

Tusheti is a very difficult area to conduct field research. The region is only accessible within a limited period. This is one of the reasons for lacking information and data on Tusheti biodiversity.

Nevertheless, studies of Tusheti biodiversity has a long history. For instance, the botanical research began in the middle of the XIX century and was regular until 1986-1990 (In 1860, Tusheti was visited by Austrian-born botanists Franz Josef Ruprecht (1814 – 1870), in 1876 by the German naturalist Gustav Radde (1831 - 1903) and during the Soviet period first geo-botanic surveys and joint expeditions of the Institute of Botany and the Botanical Division of the National Museum of Georgia were organized). On the other hand, zoological studies were only sporadic. Even during the establishment of the state reserve, data on the population size and diversity of animal species was limited if not nonexistent. (before that, in 1999-2001 a small-scale zoological survey was carried out by NACRES through the financial assistance of WWF).

Tusheti is known for its Caucasian endemic species and biological diversity. Therefore, it is attractive to scientists. It provides excellent opportunities for studying of such global problems as climate change and its impacts on biodiversity and in general, on ecosystems. There are also huge opportunities for educational activities, including schoolchildren and students field practices and lecture-seminars.

Activities Carried Out in 2006-2011

After years of break, first large-scale studies were conducted in 2003-2004 under the WEB/GEF Protected Areas Development Project (NACRES carried out base-line studies, which first relatively large-scale attempt of assessing and inventorying mammals and birds and assessing biodiversity, in general).

As a result of above studies:

- The vegetation was classified and mapped
- The flora of the national park was surveyed and key plant species for biodiversity monitoring were identified
- Abundance and other population parameters were estimated for key species (wild goat and tur) and primary maps of their distribution were produced
- Main threats to the species and habitats were identified and assessed
- Data for other species including large mammals and birds were gathered.
- The first bird inventory was carried out.

Despite the fact that new information was acquired, data gaps were filled and old data double-checked, the knowledge of Tusheti biodiversity is still at its initial stage of development and it will take many more years to complete the lists of various groups of organisms, including those of

invertebrate and vertebrate animals. For instance, the inventory of avian fauna may continue for years and it will still be possible to find new species.

The research of large mammals was resumed after a five-year break in summer 2009 by the joint initiative of APA, WWF-Caucasus and NACRES as well as with participation of EU-funded FFI/NACRES Georgian carnivores project. This survey was aimed to investigate leopard and its prey, tur and wild goat. No evidence of leopard presence was found. However, new information on many other mammals was acquired. Still information gaps on Tushetian fauna and, in general on biodiversity are numerous. Priority research areas are listed in 2006 management plan of TPA. That list is still valid. Completion of avian fauna list, inventory of invertebrates, further study of population size and habitats of various key species (tur, wild goat, chamois, deer and large carnivores), assessment of the status of the only fish – trout, etc.

In 2010, under the UNDP/GEF project: “Catalysing Financial Sustainability of Georgia’s Protected Areas System” NACRES carried out surveys of key species and priority issues. The main objective of those studies was to update information on species having high conservation value as well as potential for ecotourism development e.g. through wildlife tracking. As a result, tur and wild goat populations and their distributions were assessed; data on large carnivores and other mammals were collected; birds’ inventory was conducted and existing list revised Important Bird Areas (IBAs) were identified; preliminary data on butterflies were collected; primary map of sacred forests was produced; distribution patterns of forests and meadows were studied.

In 2010, biodiversity monitoring program was prepared for TPA. The document outlines the principles for collecting and analyzing the data on priority species and groups, monitoring timelines, concrete sites and optimum monitoring methods.

Problems Analysis

TPA has very limited capacity for carrying out scientific research. However, the administration should facilitate as much as possible implementation of scientific studies by experts and partner organizations (Universities, research institutes, local and international NGOs and donors).

TPA administration is particularly interested in filling information gaps important for the correct and effective management of PA. With this regard, the first priority is the study of the status of pastures and land productivity, inventory of groups of organisms important for biodiversity management and tourism, inventory of key taxa, study of the populations and the ecology of key species.

2011 TPA biodiversity monitoring plan outlines highest priorities taking into consideration limited financial and human resources. The priorities include: monitoring of tur and wild goat populations, collection of data on rare mammals (e.g. leopard, deer, chamois, etc.); completion of birds’ list; collection of information on species important for conservation and ecotourism development including invertebrates (particularly butterflies), mushrooms, and small mammals. In addition, it is necessary to monitor forest habitats.

With an increase in local capacities and resources it is advisable to expand the monitoring program (for instance, in order to carry out full-scale monitoring of priority species it is necessary to collect data in various seasons. Four-season data will be ideal. However, currently during the period from November through May, Tusheti is inaccessible. Carrying out of monitoring activities during this period of time should be considered as a future task since it needs large expenditures and additional human resources.

Article 34. Preservation of Tusheti Cultural Heritage

Unique and exceptional nature of Tusheti is created by the unity of its natural and anthropogenic landscapes, specific architecture and particular culture. Tush people living in this area over centuries were using natural resources sustainably. Regardless of the fact that local population lives within the protected landscape, its livelihoods and traditions are closely linked with natural landscapes of the national park and the strict reserve.

Until today, the Tush culture has maintained its uniqueness and particularity, which consists of specific dialect, handcraft, traditional cuisine, rituals, traditions, endemic animal species, etc.

Specific architecture well-integrated into the Alpine landscape –villages, fortresses and towers built of flat stone create a vernacular picture. All these in combination with local traditions and culture attract visitor from various parts of Georgia and from abroad.

Preservation and restoration of Tusheti cultural heritage will foster the effective management of PAs and the development of local culture and economy.

Problem Analysis

Sheep herding: Over centuries, the Tush grazing system ensured ecosystem healthiness of alpine grasses and meadows. This system was based on zonality principles and was well-adapted to seasonal vegetation cycles. Tush culture, traditions and rites were developed following such approaches. Thus, in Tusheti the nature and the culture co-existed in a harmony with each other. The loss of these linkages, however, has affected negatively both the culture and the environment. The revival of traditional grazing system or in other words sustainable pasture management will retard the degradation of pastures in the national park and the protected landscape.

Prohibitions related to the Sacred Places: With the growth of tourists number the risk of local culture erosion and the conflict with local tradition increases. Visitors should be informed about Tush traditions and rites and should respect them. Nowadays, the issue of access of female visitors to the sacred places is critical. These places are only accessible to men.

Chapter V: Categories and Zoning of Protected Areas

Article 35. The List of the Categories and Zones of Protected Areas

The scope of the present management plan encompasses Tusheti Strict Nature Reserve and Tusheti National Park.

The Tusheti Strict Nature Reserve does not include zones.

The Tusheti National Park consists of the following zones: (a) Strict Protection zone, (b) Traditional Use zone, (c) Visitors zone and, (d) Administration zone (Appendix 7).

Article 36. Description and Justification of the Categories and the Zones of the PA.

1. Strict Nature Reserve

In accordance with the national legislation, the strict nature reserve represents slightly transformed unique ecosystem, which has high value for scientific research. Its protection regime coincides with the IUCN Category 1. The state nature reserve is created with the purpose of protection of flora and fauna, full-scale and self-regulating functioning of the ecosystem and for its preservation in the current form.

The main objective for creating the Tusheti state reserve in 1980 was the conservation of unique pine (*Pinis kochiana*) and birch (*Betula litwinowii*, *B. raddeana*) forests. In addition, these forests represent the habitats for rare species and contribute greatly to the prevention of erosion and water regulation. Sub-alpine forests and sub-alpine shrubberies (rhododendron) also have erosion, landslide and avalanche control functions. At the same time, plant species creating such plant communities represent tertiary endemic relics.

The majority of the forests within Tusheti NR virtually is virgin forests and represents habitats or critical areas for many rare species primarily for Wild goat. Other important species are: chamois, wolf, bear, lynx, etc.

On 22 March 2011, changes were made to the *Law on Creation and Management of Tusheti, Batsara-Babaneuli, Lagodekhi and Vashlovani Protected Areas* in accordance with which Speroza section was added the state nature reserve. As a result, the reserve encompassed tur habitats. These habitats and in general, the entire Speroza section are important not only for tur, but also for other rare and key species, such as: chamois, wolf, bear and possibly also for leopard (*Panthera Pardus*). Among the local avifauna there are Caucasian Snowcock, rare vultures and other birds of prey including bearded vulture, black vulture, gyps, golden eagle, falcon, etc.

2. Tusheti National Park

The National Park is created "for the protection of relatively large ecosystems having high ecological value, their essential uses and recreation" (The Law on Protected Areas System, 1996). This category of PA corresponds to Category 2 of IUCN.

The overall goal of Tusheti National Park is the protection and preservation of unique mountainous landscapes and ecosystems, conservation of rich flora and fauna, ecotourism development and maintaining of traditional livelihoods based on the sustainable use of natural resources.

a) Strict Nature Protection Zone

Strict Nature Protection Zone is established in the area with pristine nature and high potential for ecotourism and scientific researches. Thus, it serves to preserve natural ecosystems under the conditions of ecotourism and non-manipulative scientific research activities. Currently, its objective is to protect tur habitats.

The strict protection zone of Tusheti National Park encompasses practically untransformed territories and tur habitats. In terms of vertical zoning, it is represented by alpine, subalpine and nival zones. Respectively, the objective of this zone is to protect and conserve tur and its habitats, and other species found there as well as to protect alpine and sub-nival flora rich in endemic species.

“The Atsunta section” of the strict protection zone (Atsunta ridge and the foothills of Tebulo mount) is an ideal habitat for tur and represents the core zone for this species. This area is very important for the whole of Tusheti and probably, also Khevsureti tur populations. It is necessary to strictly protect these areas in order to conserve East Caucasian Tur at both local and national context.

b) Traditional Use Zone

The main objectives of the Traditional Use Zone are as follows: nature protection, meeting the social-economic needs of local population based on the principle of sustainable use of natural resources and, preservation and recovery of domestic animals related to Tush sheep farming. Thus, for the purpose of sustainable pasture management, traditional use zone includes current and potential pastures and hey fields.

Until recently, pastures and hey fields located within the PA were managed by the local municipality. In accordance with the GoG Decision (#339, 7 September 2011) the provision on *Setting the Initial Actionable Price for and Organizing Public Auction for Leasing out the Land and Real Estate of the Protected Area (excluding the land within multi-purpose use areas or protected landscapes)* was approved. By this provision the rules for auctioning out concessions for pastures and hey fields, located in the traditional use area of the national park has changed. Now the decision on the lease of pastures is made by APA. The price for the pasture use is set based on the recommendations of an independent auditor (expert).

c) Visitors Zone

Visitors' zone represents specially arranged territory to receive visitors in which all relevant infrastructure is located.

In addition to nature protection, the objective of the visitors' zone is to allow recreation, ecotourism and educational activities and create relevant conditions for visitors without impacting the environment negatively.

Any given section of the visitors' zone assumes all restrictions prescribed by the protection regime of the zone on which it is situated.

c) Administration zone

Administration zone includes territories where the infrastructure necessary for implementation of tourism, protection, control and safety-related activities is located. The purpose of this zone is to ensure proper operations and effective protection of the National Park.

Article 37. Land Area and Boundaries of PA Categories and Zones

1. The Area of Various Categories and Zones of the PA:

a) The total area of Tusheti State Nature Reserve is 12,627.2 ha.

b) The total area of Tusheti National Park is 69 515 ha

- Total area of the strict protection zone is 12,678 ha;
- Total area of traditional use area is 56,789 ha;
- Total area of administrative zone is 48 ha.

2. Coordinates of the Categories and Zones of the PAs

The geographic coordinates of these zones of Tusheti National Park are given in Appendix (#8).

Article 38. Activities Allowed in Each Category and Zone of the PA

1. General Rules for the Use of the Territories of the PA

According to general rules and authorities prescribed by the law on Protected Areas System, also based on the charters of the Ministry of Environment and APA, the following activities are allowed within TPA:

a) Activities allowed within the state nature reserve:

- non-manipulative scientific research;
- educational activities;
- during natural and anthropogenic disasters and emergency situations, limited movement of auto-, moto- and air- transport of the personnel of the administration of the state reserve in order to perform work-related duties;
- monitoring activities;
- activities related to land cadastre;
- implementation of measures (physical protection of the reserve) necessary for the protection of the areas as prescribed by the Georgian legislation;
- movement by non-motor transport taking into account restrictions prescribed by the management plan"

Respectively, in the Tusheti State Reserve:

- visitors are allowed only to conduct research and educational activities;
- collection of biological data and samples for the scientific purposes is conducted under the strict control and requires APA's agreement;
- installation of permanent or temporary structures and signs is allowed after APA's official agreement;
- movement is allowed only in specially allocated trails and only on foot or by non-motor transport.

b) In the strict protection zone of Tusheti National Park it is allowed to carry out:

- non-manipulative scientific researches;
- educational activities;
- ecotourism-related activities;
- during natural and anthropogenic disasters and emergency situations, limited movement of auto-, moto- and air- transport of the personnel of the administration of the state reserve in order to perform work-related duties
- activities related to land cadastre;
- implementation of measures (physical protection of the zone) necessary for the protection of the area as prescribed by the Georgian legislation;
- movement by non-motor means of transport taking into account restriction prescribed by the management plan
- visitors stay and movement in accordance with Georgian legislation"

Respectively, on the territory of the strict protection zone of Tusheti National Park:

- visitors' are allowed to carry out scientific researches and educational activities;
- collection of biological data and samples for the scientific purposes is conducted under the strict control and requires APA's/Administration's agreement
- tourists are allowed on the territory only when their presence does not inhibit the implementation of monitoring, scientific and research works and protection measures; tourists movement is allowed only on the specially allocated paths;
- permanent or temporary constructions or signs can be installed upon the official approval of the Agency/Management;
- movement shall be allowed only along specially allocated paths on foot or by means of no-motor carriers;

c) Traditional agriculture activities, like mowing, grazing, wood collection (except cultivation of land) can be pursued on the sections of the National Park traditionally used for these purposes. At the same time, intensity of such works is regulated both according to the needs of the local population, as well as natural productivity levels.

The following activities can be carried out in the traditional use zone of the National Park:

- traditional agricultural activities (namely, traditional sheep farming) and sustainable use of renewable natural resources;
- scientific research;
- monitoring;
- presence of visitors with ecotourism and recreation purposes;
- implementing active management measures for the rehabilitation of ecosystems and natural resources;
- implementation of maintenance and rehabilitation works to support traditional sheep-breeding in Tusheti;
- implementation of cadastral works;
- implementation of physical protection, search and rescue and other necessary measures to maintain protection regime;
- installation of traditional constructions and buildings adapted to the environment;
- movement of transport upon the approval of the Management;
- Implementation of necessary measures for fire prevention.

d) In the visitor's zone of Tusheti National Park it is allowed to:

- develop tourist infrastructure (trails and paths, shelters, viewing platforms, places for rest and other constructions adapted to the environment);
- presence of visitors for ecotourism and recreation;
- car movement (except the areas where movement with motor vehicles is restricted), movement on foot or on a horseback;
- photography and filming, visual observation of the flora and fauna without affecting or disturbing it;
- overnight stay in specially arranged shelters;
- taking necessary measures for fire prevention.

Article 39. Issues Related to Leasing the Rights of Use of PA Property and Natural Resources within Each Zone of PA

Utilization of natural resources on TPA territory and transfer of utilization rights over the property of the PA shall be carried out in compliance with the Decision of the Government of Georgia #339 of 7 September 2011 regarding the *Approval of Setting the Initial Actionable Price for and Organizing Public Auction for Leasing out the Land and Real Estate of the Protected Area (excluding multi-purpose use areas and protected landscapes)*"; as well as the current Management Plan and the current legislation of Georgia.

Chapter VI: Management Plan Programs

Article 40. Responsibility for the Implementation of the Management Plan

1. APA (its Central Office and TPA Administration) is responsible for the organization and implementation of the activities envisaged by the Management Plan, as well as for the monitoring of their implementation and achievement of the objectives set by the Management Plan.

2. APA ensures that other organizations and experts implement or cooperate in the implementation of certain activities.

Article 41. Program for the Protection, Conservation and Sustainable Use of Natural Resources

1. Targets of the Program for the Protection, Conservation and Sustainable Use of Natural Resources

The following targets have been set by APA to be achieved within the term of this Management Plan with the indicators which will be used to assess progress:

#	Target (i.e. what we intend to achieve within the term of the Management Plan)	Indicators
1.	Ensuring effective protection of habitats and ecosystems, and increasing the population size of the key species of the Red List.	<ul style="list-style-type: none"> – No notable deterioration of habitats caused by human interference; – Population size of at least two Red List species is increased;
2.	Ensuring sustainable use of natural resources, especially pastures within the traditional use zone of the National Park and decreasing the size of degraded pasture areas.	<ul style="list-style-type: none"> – No notable deterioration of pastures caused by human interference; – The size of the degraded pasture areas is reduced;
3.	Facilitating scientific research in the priority areas with the aim of renewing and increasing scientific data on Tusheti PA.	<ul style="list-style-type: none"> – Considerably increased scientific knowledge on the conditions of pastures and their productivity; – List of species is enriched/updated regarding the key biodiversity groups. – Scientific knowledge on the populations of key species and on their ecology is improved.
4.	Introduction of efficient and comprehensive system of biodiversity data collection, storage and analysis, which fully meets PA's conservation and ecotourism priorities and ensures its adaptive management.	<ul style="list-style-type: none"> – TPA have database of biodiversity monitoring which is regularly updated; – Feedback loop is ensured through the implementation of the recommendations developed as a result of the data analysis obtained by biodiversity monitoring and carried out by the PA Management.

2. Objectives of the Program for the Protection, Conservation and Sustainable Use of Natural Resources

a) Strategic objectives set by APA in order to achieve the above targets are as follows:

1.	Strengthening cooperation with local, national and international organizations.
2.	Protecting habitats and species.
3.	Strengthening law-enforcement system.
4.	Sustainable use of natural resources on the territory of Tusheti PA
5.	Facilitation of scientific research on the territory of Tusheti PA through deepening/establishing partnerships with relevant experts and institutions, according to the scientific research priorities.
6.	Establishment of comprehensive and effective system of biodiversity monitoring and implementation of respective activities.
7.	Capacity building of the PA Administration in biodiversity monitoring through the provision of relevant trainings and resources.
8.	Involvement of local communities, especially youth and children, as well as visitors in the activities related to biodiversity.

3. Action Plan for the Program: Protection, Conservation and Sustainable Use of Natural Resources

APA intends to implement the following activities to achieve each of the above strategic objectives:

a) Strategic Objective 1: Strengthening cooperation with local, national and international organizations.

Activity	Result/Outcome	APA/TPA Role	Involvement of partners	Assumption
1.1. Establishing links with the relevant international organizations with the purpose of TPA inclusion in international networks (initiating the process with UNESCO for assigning TPAs the status of a biosphere reserve within the framework of MAB program; with the ultimate membership in European PAN parks network.	TPA is receiving or has received the status of a biosphere reserve; TPA is becoming or has become a member of European PAN parks network.	Initiation and coordination	Local municipalities/ administration of the protected landscape and other stakeholders.	The idea agreed with the other stakeholders.
1.2. Supporting local municipality in building the capacity of the Tusheti Protected Landscape Administration and the development of the Management Plan for the Protected Landscape Administration.	Building the capacity of the Protected Landscape Administration and the development of the Management Plan for the Protected Landscape Administration is ongoing or completed.	Initiation and implementation	Local municipality/Adm inistration of the Protected Landscape and other stakeholders.	Close cooperation established between the administrations of TPA and TPL
1.3. Development of common	Common approaches	Initiation and	Local	TPL

approaches to natural resources management in cooperation with TPL Administration.	to resource management are in place.	implementation	municipality/Adm inistration of the Protected Landscape and other stakeholders.	Administration has motivated staff and resources.
1.4 Ensuring cooperation with Vashlovani PA Administration to deal with common issues, such as protection of wildlife, pasture management and public relations.	The two PAs are liaising on a regular basis, common approaches are developed.	Initiation and implementation	Vashlovani PA Administration	N/A

b) Action plan for Strategic Objective 2: Protection of habitats and species

Activity	Result/Outcome	APA/TPA Role	Involvement of partners	Assumption
2.1 Development of public awareness raising activities for local communities and natural resources users focussing on the protection regimes defined by the law, zoning of PA, their size and location.	Public awareness raising package (document) targeting local communities and natural resources users.	Implementation and coordination	Relevant experts, partner organizations	Additional funding
2.2. Installation of information and prohibition and demarcation signs with the aim of reducing illegal grazing in the locations, where such violations are especially frequent.	Reduced cases of illegal grazing.	Implementation	N/A	Additional funding
2.3. Continue regular patrolling and its further expansion with the aim of reducing poaching and other illegal activities.	Reduced cases of violations.	Implementation	N/A	N/A
2.4. Planning specific protection measures (e.g. special patrolling routes) for specific key species (tur, wild goat, etc.) in cooperation with relevant experts.	Cases of illegal hunting on key species is reduced.	Implementation	Relevant experts or research institution.	Additional funding required
2.5. Improving coordination and cooperation with the relevant institutions for the implementation of TPA legal	Number of violations reduced.	Coordination and implementation	Local municipality/TPL Administration, Border Police,	Close cooperation between the institutions.

enforcement strategy.			other stakeholders.	
2.6. Implementation of annual fire prevention activities.	Cases of fire are timely managed.	Coordination and implementation	Local municipality, Rescue Services, local population.	Additional funding required for supplies and equipment.
2.7. Training of local natural resources users in fire management skills and gaining their support in fire management works.	Timely and efficient management of fire incidents.	Coordination and implementation	Local municipality, Rescue Services, local population.	Additional funding required for organizing trainings.

c) Action plan for Strategic Objective 3: Strengthening of law enforcement system

Activity	Result/Outcome	DAPA/TPA Role	Involvement of partners	Assumption
3.1 Increasing capacity and motivation of Rangers Service through professional training programs on biodiversity, management and so on.	Professional training programs for rangers on biodiversity, management, etc.	Implementation	Relevant expert(s).	Additional funding required
3.2 Capacity building of Rangers Services in search and rescue.	Rangers are trained respectively.	Implementation	Relevant expert(s).	Additional funding required for trainings and equipment.
3.3 Mobilization and involvement of volunteers from local communities in search and rescue operations.	Respectively trained group of local volunteers in place.	Initiation and implementation	Relevant expert(s).	Additional funding required for trainings.

d) Action plan for Strategic Objective 4: Sustainable use of TPA natural resources

Activity	Result/Outcome	DAPA/TPA Role	Involvement of partners	Assumption
4.1 Gradual assessment of pastures in the traditional land use section of the National Park and development of a management plan.	Management plan and the assessment report of pastures in the traditional land use section of the National Park.	Coordination and implementation	Relevant expert(s) or research institution.	Additional funding required
4.2 Assessment of the condition and utilization levels of forest resources on the	Respective report.	Coordination	Relevant expert(s) or research	Additional funding required

territory of TPA.			institution.	
4.3. Based on the forest resources assessment, renewing zoning and installation of respective boundary demarcation signs.	Recommendations for rezoning.	Coordination	Relevant expert(s) or research institution.	Additional funding required
4.4. Facilitating restoration of traditional methods of sheep farming and sustainable use of pastures.	Specific recommendations regarding the restoration of traditional methods of sheep breeding and sustainable use of pastures.	Coordination and implementation	Local groups, municipality, relevant expert(s).	Additional funding required
4.5. Ecological hazard assessment of specific areas in terms of tourism and recreation activities, and identification of mitigation measures.	Respective assessment report and proposed mitigation measures.	Coordination and implementation	Relevant expert(s).	Additional funding required

e) Action plan for Strategic Objective 5: Facilitation of scientific research on the territory of Tusheti PA through deepening/establishing partnerships with relevant experts and institutions, according to the scientific research priorities.

Activity	Result/Outcome	APA/TPA Role	Involvement of partners	Assumption
5.1 Update the existing list of scientific research priorities.	Updated list of the scientific research priorities.	Implementation	Relevant expert(s).	N/A
5.2. Support scientific research on the condition of pastures and their productivity.	Scientific data on the condition of pastures and their productivity.	Support and oversight.	Relevant expert(s), trusted research institutions, other partner organizations.	Initiation of a joint project is required for obtaining the necessary funding.
5.3. Support the inventory of key groups of organisms (e.g. e.g. updating the species list of birds, invertebrates, mushrooms, etc.)	Updated scientific data and species lists.	Support and oversight.	Relevant expert(s), trusted research institutions, other partner organizations.	Initiation of a joint project is required for obtaining the necessary funding.

5.4 Support ecologic research of key species (e.g. identification of habitats and population size of different key mammals, trout population assessment).	Updated scientific data on key populations.	Support and oversight.	Relevant expert(s), trusted research institutions, other partner organizations.	Initiation of a joint project is required for obtaining the necessary funding.
5.5 Regular monitoring of key ecosystems or plant communities.	Updated scientific data on key ecosystems or plant communities.	Support and oversight.	Relevant expert(s), trusted research institutions, other partner organizations.	Initiation of a joint project is required for obtaining the necessary funding.
5.6 Support scientific research of socio-economic and ecological aspects of the conflict between local shepherds and predators.	Updated scientific data on the socio-economic and ecologic aspects of the conflict between local shepherds and predators.	Support, data collection and oversight.	Relevant expert(s), trusted research institutions, other partner organizations.	Initiation of a joint project is required for obtaining the necessary funding.

f) Action plan for Strategic Objective 6: Establishment of comprehensive and effective system of biodiversity monitoring and implementation of respective activities.

Activity	Result/Outcome	APA/TPA Role	Involvement of partners	Assumption
6.1 Conduct monitoring of key priority species (tur, wild goat) in compliance with PAs Biodiversity Monitoring Program	Effective monitoring of key priority species (tur, wild goats) in compliance with TPAs Biodiversity Monitoring Program	Initiation, participation, and coordination	Relevant expert(s), partner organizations, local community representatives.	Additional funding on top of budgetary allocations.
6.2 Gather data on rare mammals (e.g. leopard, deer, etc.).	Gathering of data on rare mammals ongoing successfully.	Initiation, participation, and coordination	Relevant expert(s), partner organizations, local community representatives.	Additional funding on top of budgetary allocations.
6.3 Conduct monitoring of forest habitats and rare ecosystems.	Updated maps reflecting forest habitats and rare ecosystems.	Initiation, participation, and coordination	Relevant expert(s), partner organizations, local community representatives.	Additional funding on top of budgetary allocations.
6.4 Analysis/interpretation of monitoring data and development of recommendations for the PA Management.	Report and recommendations reflecting the results of data analysis.	Initiation, participation, and coordination	Relevant expert(s), partner organizations.	Additional funding on top of budgetary allocations.

g) Action plan for Strategic Objective 7: Capacity building of the PA Administration in biodiversity monitoring through the provision of relevant trainings and resources.

Activity	Result/Outcome	APA/TPA role	Involvement of partners	Assumption
7.1 Professional development of Resource Management Specialist through special trainings in the fields of GIS technologies, in data gathering for planning biodiversity monitoring, in data collection, planning and implementation and in maintaining the database.	Increased capacity of the Resources Management Specialist.	Initiation and coordination	Relevant expert(s) and partner organizations	Additional funding on top of budgetary allocations for funding trainings.
7.2 Carry out ongoing trainings of rangers in field data collection and employment of the necessary equipment for biodiversity monitoring.	Increased capacity of the Resources Management Specialist.	Initiation and coordination	Relevant expert(s) and partner organizations	Additional funding on top of budgetary allocations for funding trainings.
7.3 Provision of supplies and equipment for the implementation of the activities for biodiversity monitoring.	Increased capacity of the Administration in the implementation of the activities for biodiversity monitoring.	Implementation, support and coordination.	Relevant expert(s) and partner organizations	Additional funding on top of budgetary allocations.

h) Action plan for Strategic Objective 8: Involvement of local communities, especially youth and children, as well as visitors in the activities related to biodiversity.

Activity	Result/Outcome	APA/TPA role	Involvement of partners	Assumption
8.1 Organize eco-camps for students from Tusheti, which will involve their participation in biodiversity data collection, such as tracking and mapping of sacred forests, inventory of wild goats, interviewing witnesses, etc.	Additional data and updated database of biodiversity monitoring.	Coordination and implementation	Partner organizations	Additional funding
8.2 Organize eco-camps for school children, which will involve simple and fun activities for children (e.g. compiling collections of butterflies, herbariums, etc.) enabling them to participate in biodiversity research and monitoring.	Additional data and updated database of biodiversity monitoring.	Coordination and implementation	Partner organizations	Additional funding
8.3 Introduction of simple and	Additional data and	Implementation	N/A	N/A

effective mechanisms for receiving biodiversity information from tourists (e.g. information sheets with the request to provide information according to monitoring priorities; allocating an email address on APA website, where visitors can send their information; requesting information from the participants of wildlife tracking tours, etc.)	updated database of biodiversity monitoring.			
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Article 42. Eco-Education and Public Outreach Program

1. Targets of Eco-Education and Public Outreach

The following targets have been set by APA to be achieved within the term of this Management Plan with the indicators which will be used to assess progress:

#	Target (i.e. what we intend to achieve within the term of the Management Plan)	Indicators (what to assess to measure the achievement of the targets)
1	Raising public awareness on TPA and its importance through educational and public outreach activities targeting local population, visitors and other stakeholders.	<ul style="list-style-type: none"> – Opinion polls reflecting increased awareness of these issues. – Attitude of the groups of population towards conservation is more favourable.
2.	Cooperation with local communities and supporting their development so that it facilitates retention of natural and cultural values of Tusheti.	<ul style="list-style-type: none"> – Capacities of the communities are increased; – Support towards TPA and its activities is increased;

2. Objectives of Public Outreach and Eco-Education Program

Strategic objectives set by APA in order to achieve the above targets are as follows:

1	Capacity building for public awareness activities and introduction of efficient and wide-scale educational program.
2	Working with the local population through targeted eco-educational program.
3	Raising awareness of a wider population regarding TPA.
4.	Improving communication and cooperation with the local communities and gaining their support.
5.	Improving socio-economic conditions of Tusheti community in the manner that does not contradict with the TPA objectives or damage the environment.

3. Action plan for Public Outreach and Eco-Education Program

APA intends to implement the following activities to achieve each of the above strategic objectives:

a) Action plan for Strategic Objective 1: Capacity building for raising public awareness and introduction of efficient and wide-scale educational program.

Activity	Result/Outcome	APA/TPA role	Involvement of partners	Assumption
1.1. Develop messages for TPA's key eco-educational and public awareness raising activities on specific issues and targeting specific audience.	Clearly defined messages for TPA's key eco-educational and public awareness raising activities.	Implementation	N/A	N/A
1.2 Publish a popular brochure on edible plants, medicinal plants and natural dyes.	Popular brochure on edible plants, medicinal plants, and natural dyes.	Initiation and coordination	Relevant experts, partner organizations	Additional funding
1.3 Define potential sites for installing eco-camp infrastructure and finding relevant partners.	Potential sites for installing eco-camp infrastructure are identified and mapped.	Implementation	Relevant experts	Additional funding

b) Action plan for Strategic Objective 2: Working with the local population through targeted eco-educational program.

Activity	Result/Outcome	APA/TPA role	Involvement of partners	Assumption
2.1 Develop a public awareness strategy targeting key users of natural resources (sheep-breeders/shepherds, wood users)	Public awareness strategy document targeting key users of natural resources (sheep-breeders/shepherds, wood users).	Implementation and coordination	Relevant experts, partner organisations	Additional funding
2.2 Develop an education program for natural resource users (information sharing, workshops, trainings) on the issues of the use of resources (i.e. pastures, wood, forest) and conservation of cultural heritage.	Education program for natural resources users	Implementation and coordination	Relevant experts, partner organizations	Additional funding
2.3 Develop a special program (information sharing, workshops, trainings) for guest house owners and providers of hospitality services for tourists, so that they can contribute to	Special education program for guesthouse owners and providers of hospitality services for tourists.	Implementation and coordination	Relevant experts, partner organizations	Additional funding

educational and public awareness activities carried out in Tusheti.				
2.4 Implement a summer program targeted at local population and visitors on the issues of conservation of Tusheti cultural and natural heritage.	Presentations held on the issues of conservation of Tusheti cultural and natural heritage.	Implementation and coordination	Relevant experts, partner organizations	Additional funding
2.5 Implement education programs on TPA cultural and natural heritage conservation for the students visiting Tusheti, and/or at schools and universities.	Education programs on TPA cultural and natural heritage conservation implemented.	Implementation and coordination	Relevant experts, partner organizations	Additional funding
2.6 Establish and support eco-clubs in the schools of Tusheti valley villages.	Eco-clubs established in the schools of lowland Tush villages.	Implementation and coordination	Partner organizations	Additional funding
2.7 Develop a special education program for education institutions, based on the defined age limit and target groups.	Special education program in place for education institutions, based on the defined age limit and target groups.	Implementation and coordination	Partner organizations	Additional funding
2.8 Organize summer events/eco-camps for students and children on the issues related to nature/environment.	Summer events/eco-camps for students and children on the issues related to nature/environment implemented.	Implementation and coordination	Partner organizations	Additional funding
2.9 Organize a group of local volunteers to ensure involvement of local community and youth representatives ("young rangers") in the work of TPAs.	Group of local volunteers established and functioning.	Implementation and coordination	Partner organizations	Additional funding

c) Action plan for Strategic Objective 3: Raising awareness of a wider population regarding TPA.

Activity	Result/Outcome	APA/TPA role	Involvement of partners	Assumption
3.1 Promote TPA, its natural and cultural value and significance, through publishing articles and disseminating information in local, national, and international media.	Articles/information on TPA published and disseminated in local, national, and international media.	Implementation and coordination	Partner organizations	N/A
3.2 Publish education and	Education and public	Implementation and	Partner	Additional

public awareness raising materials and maps, publications, information sheets, brochures on TPAs.	awareness raising materials and maps, publications, information sheets, brochures on TPAs published.	coordination	organizations	funding
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d) Action plan for Strategic Objective 4: Improving communication and cooperation with the local communities and gaining their support.

Activity	Result/Outcome	APA/TPA role	Involvement of partners	Assumption
4.1 Establish a forum of local stakeholders so that they can receive information on the activities of TPA Administration, and be able to influence the decision-making.	Local stakeholders' forum established and functioning.	Implementation and coordination	Partner organizations	N/A
4.2 Inform communities on the forthcoming projects in Tusheti, and ensuring their involvement in project implementation to the extent possible.	Community meetings organized with the aim of informing local population on the forthcoming projects in Tusheti.	Implementation and coordination	N/A	N/A
4.3 Organize Sunday schools on conservation issues for the local youth.	Sunday schools for local youth on conservation issues organized.	Implementation and coordination	Partner organizations	Additional funding
4.4 Continue annual socio-economic monitoring.	Annual socio-economic monitoring activities conducted.	Implementation	N/A	N/A
4.5 Engage with interested local youth and organizing regular meetings with them.	Meetings held with interested local youth.	Implementation	Partner organizations	N/A

e) Action plan for Strategic Objective 5: Improving socio-economic conditions of Tusheti community in the manner that does not contradict with the TPA objectives or damage the environment.

Activity	Result/Outcome	APA/TPA role	Involvement of partners	Assumption
5.1 Support projects that aim at solving the issues related to local infrastructure and employment.	Respective work carried out with donors and relevant organizations so that projects aimed at solving the problems related to local	Support	Partner organizations	N/A

	infrastructure and employment are implemented in Tusheti.			
5.2 Lobby banks and other financial institutions to develop special credit offers for supporting business in Tusheti.	Respective work carried out in Tusheti.	Implementation	Partner organizations	N/A
5.3 Cooperate with relevant professional groups and agencies for organizing trainings for local business representatives on the issues of business development and management.	Relevant work carried out with the respective professional groups and agencies for organizing trainings for the representatives of the local businesses.	Implementation	Partner organizations	N/A
5.4 Support projects that aim at the development of sustainable energy technologies (with zero impact on the environment).	Relevant work carried out with donors and relevant organizations.	Implementation	Partner organizations	N/A

Article 43. Ecotourism (Visitors) Program

1. Targets of the Ecotourism Program

The following targets have been set by APA be achieved within the term of this Management Plan with the indicators which will be used to assess progress:

#	Target (i.e. what we intend to achieve within the term of the Management Plan)	Indicators (what to assess to measure the achievement of the targets)
1	To ensure, in collaboration with the stakeholders, local community and tourist agencies, safe and pleasant environment for visitors, without damaging natural and cultural heritage of Tusheti.	<ul style="list-style-type: none"> – The number of satisfied visitors increased; – All tourism related activities are based on the principles of sustainable tourism.

2. Objectives of Ecotourism Program

a) Strategic objectives set by APA in order to achieve the above targets are as follows:

1.	Building local capacities in hospitality services and tourism.
2.	Development of safe and environmentally friendly infrastructure, guidelines and management systems for tourism and recreation.
3.	Marketing, promotion and information management of TPA.

4.	Increasing revenues from tourism and use of those revenues to support the activities of TPA Administration.
5.	Improvement of the quality and diversification of tourist services.

3. Ecotourism Program Action plan

The following are the planned activities APA intends to implement to attain each strategic objective:

a) Action plan for Strategic Objective 1: Building local capacities in hospitality services and tourism development.

Activity	Result/Outcome	APA/TPA role	Involvement of partners	Assumption
1.1 Coordinate tourism management.	Regular meetings and information sharing with municipalities and other stakeholders.	Implementation	Municipality, national tourism agency, TPAs Friends' Association, Tusheti Tourism Association, tourist agencies, etc.	N/A
1.2 Training of respective staff of the Administration in of tourism, recreation and visitors' management.	Respective staff is trained in tourism, recreation and visitors' management.	Implementation and coordination	Partner organizations	Additional funding
1.3 Support capacity development of local guides.	Trainings and other activities conducted for the capacity building of the local guides.	Implementation and coordination	National tourism agency, partner organizations	Additional funding
1.4 Training of local guides in foreign languages (mainly in English), so that they can attain <i>Common European Framework Standard B1</i> .	Works carried out for teaching foreign languages to local guides.	Implementation and coordination	Partner organizations	Additional funding
1.5 TPA Administration and local tourist service providers are exposed to the experience and achievement of other PAs in tourism management.	Study tours to other PAs conducted.	Implementation and coordination	Partner organizations	Additional funding
1.6 Maintain an ongoing dialogue with local communities on the issues of tourism and recreation, and establishment of a local	Regular meetings conducted with the local communities on tourism and recreation issues; a local Tourism	Implementation	Partner organizations	N/A

Tourism Support Group.	Support Group formed.			
1.7 Conduct trainings/seminars on hospitality business in support of small local businesses for obtaining small grants.	Trainings/seminars on hospitality business in support of small local businesses for attracting small grants conducted.	Implementation and coordination	Partner organizations	Additional funding
1.8 Facilitate direct cooperation between local population and tourism agencies for the development of tourism services and products in Tusheti.	Meetings conducted to facilitate direct cooperation between local population and tourism agencies.	Implementation and coordination	Partner organizations, tourism agencies.	N/A

b) Action plan for Strategic Objective 2: Development of safe and environmentally friendly infrastructure, guidelines and management systems for tourism and recreation.

Activity	Result/Outcome	APA/TPA Role	Involvement of partners	Assumption
2.1 Assess visitor carrying capacity and introduction of respective restrictions.	Visitor carrying capacity assessment by trails/locations conducted and respective restrictions imposed.	Implementation and coordination	Relevant experts, partner organizations	Additional funding
2.2 Rehabilitate/renovate the local infrastructure and trails so that it ensures security and meets international environmental standards.	The existing infrastructure and trails are renovated and repaired.	Implementation	Donor/Partner organizations	Additional funding
2.3 Plan and install new infrastructure, trails, camp sites, etc. only after relevant impact assessment has been conducted and mitigation measures have been proposed.	New infrastructure, trails and camp sites planned and provided.	Implementation	Partner organizations	Additional funding
2.4 Develop and implement short-term and long-term waste management plans for camp sites and other tourism areas.	Long and short-term waste management plans in place; implementation of short-term plans launched.	Implementation and coordination	Local municipality, donor and partner organizations.	Additional funding
2.5 Support the development of architectural standards for	Architectural standards	Implementation and coordination	Relevant	Additional funding

infrastructure in TPA.	developed ensuring maintenance of traditional and characteristic style.		services, experts;	
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c) Action plan for Strategic Objective 3: Marketing, promotion and information management of TPA.

Activity	Result/Outcome	APA/TPA Role	Involvement of partners	Assumption
3.1 Promote TPA on domestic (Georgian) as well as on the international markets through relatively cheap, simple and efficient marketing interventions and program.	TPAs represented on the national (and possible international) tourism fairs; internet marketing tools used to maximum.	Implementation and coordination	Partner organizations	Additional funding
3.2 Maintain a bi-lingual (GEO-ENG) web-page.	Constantly updated and fully operational bi-lingual (GEO-ENG) web-page.	Implementation	N/A	N/A
3.3 Plan and introduce an online-reservation system for Tusheti hotels.	Recommendations to the hotels in Tusheti for the introduction of online reservation system.	Implementation and coordination	Experts/ partner organizations	Additional funding
3.4 Organize TPA promotion events, such as annual festivals and fund raising activities.	Annual festivals and fund raising activities conducted	Implementation and coordination	Partner organizations	Additional funding
3.5 Publish updated, good quality detailed maps, guides and information sheets.	Materials printed.	Implementation and coordination	Partner organizations	Additional funding

d) Action plan for Strategic Objective 4: Increasing revenues from tourism and use of those revenues to support the activities of TPA Administration.

Activity	Result/Outcome	APA/TPA Role	Involvement of partners	Assumption
4.1 Introduce an park entry fee system based on the model agreed between various stakeholders.	Entry fees system in place based on the agreed model.	Implementation and coordination	Local municipality, partner organizations	N/A
4.2 Monitor the management of the hotel rooms, cafeteria, and conference hall in the visitor's centre, which was handed over to private management.	Ongoing monitoring of the infrastructure under private management.	Implementation	N/A	N/A

e) Action plan for Strategic Objective 5: Improvement of the quality and diversification of tourist services.

Activity	Result	APA/TPA Role	Involvement of partners	Assumption
5.1 Introduction of TIES (The International Ecotourism Society) Code of Conduct, and its promotion among visitors and TPA partner organizations.	Information sheets with the relevant data printed and disseminated among visitors and TPA partner organizations.	Implementation	Partner organizations	Additional funding
5.2 Ensure safety of visitors – Introduction and implementation of search and rescue, as well as emergency evacuation, treatment and hospitalization procedures in TPA.	Respective procedures developed and introduced.	Implementation	Experts/Partner organizations	Additional funding
5.3 Conduct trainings on basics of tourism for local service providers and concessioners, as well as TPA Administration staff.	Relevant trainings conducted.	Implementation and coordination	Experts /Partner organizations	Additional funding
5.6 Support scientific (botanical, zoological, etc.) tours.	Areas of special botanical and/or zoological interest are identified and included in tourist trails, the information is available on the web-page, brochures are published.	Implementation and coordination	Relevant experts, partner organizations	State and additional funding
5.7 Support development of nature-based tourism (e.g. wildlife watching) and other tourism activities that do not have a negative impact on nature.	Visitors are able to enjoy various forms of nature-based tourism.	Implementation and coordination	Partner organizations	Additional funding

Article 44. Administration Program

1. Targets of the Administration Program

The following targets have been set by APA to be achieved within the term of this Management Plan with the indicators which will be used to assess progress:

#	Target (i.e. what we intend to achieve within the term of the Management Plan)	Indicators (what to assess to measure the achievement of the targets)
1	Ensuring necessary human and material-technical resources for the implementation of the management plan, through efficient utilization of the existing funding.	<ul style="list-style-type: none"> – Qualified personnel fully retained; – 80% of the planned activities successfully implemented.

2. Objectives of the Administration Program

a) Strategic objectives set by APA in order to achieve the above targets are as follows:

1.	Improving the working conditions and motivation of the TPA Administration staff.
2.	Provision of relevant and sustainable financing for the implementation of the management plan.
3.	Organizational development of the PA Administration
4.	Improving TPA key operational infrastructure and technical base.
5.	Development of new partnerships and maintaining the existing relations with the stakeholders, donors and support groups.

3. Action plan for Administrative Program

The following are the planned activities APA intends to implement to attain each strategic objective:

a) Action plan for Strategic Objective 1: Improving the working conditions and motivation of the TPA Administration staff

Activity	Result/Outcome	APA/TPA Role	Involvement of partners	Assumption
1.1 Develop staff assessment system for improved staff development and monitoring.	Document reflecting the staff assessment system.	Implementation	Expert (s)	Additional funding
1.2 Recruit staff on all job posts and ensure more efficient distribution of responsibilities among staff.	Staff is fully recruited with all sharing equal and adequate workload.	Implementation	N/A	N/A
1.3 Provide rangers with food and shelter during patrolling.	During patrolling each ranger is provided with sufficient food and adequate shelter.	Implementation	Partner organizations	Additional funding
1.4 Provide life and health insurance to staff.	All staff is insured.	Implementation	N/A	Additional funding

b) Action plan for Strategic Objective 2: Provision of relevant and sustainable financing for the implementation of the management plan.

Activity	Result/Outcome	APA/TPA Role	Involvement of partners	Assumption
2.1 Conduct a gap analyses of management plan financing and defining priorities for external funding.	Gaps identified in management plan financing.	Implementation	Partner organizations	Additional funding

2.2 Ensure alternative sources of funding.	TPA receives funding from alternative sources (e.g. park entry ticket system, resource consumption tax and selling of the local production).	Implementation	Experts/Partner organizations	Additional funding
2.3 Seek donors and funding organizations for the benefit of TPA.	Project proposals are formulated for donors.	Implementation	Partner organizations	N/A

c) Action plan for Strategic Objective 3: Organizational development of the PA Administration

Activity	Result/Outcome	APA/TPAs ROLE	Inclusion of other partners	Baseline
3.1 Develop skills of the Protection Service staff.	Exchange Programs and study tours organized for Administration staff.	Implementation	Partner organizations	Additional funding
3.2 Organize English language classes for the TPA Administration staff and volunteers, so that they can attain desirable level of language efficiency (Common European Standard B1)	The respective staff has attended English classes.	Implementation	Partner organizations	Additional funding
3.3 Provide the TPA staff with updated information and materials.	Administration staff has access to necessary information and materials.	Implementation	Partner organizations	Additional funding
3.4 Develop a tailor-made training system.	Document reflecting tailor-made training system.	Coordination	Experts	Additional funding
3.5 Set up a 'reserve' of trained volunteers to help TPA Administration.	Duly trained group of volunteers in Tusheti.	Implementation	Partner organizations	Additional funding

d) Action plan for Strategic Objective 4: Improving TPA key operational infrastructure and technical base.

Activity	Result/Outcome	APA/TPA Role	Involvement of partners	Assumption
4.1 Maintain and upgrade of technical equipment and infrastructure managed by the Administration.	Equipment and infrastructure managed by the Administration is in good condition.	Implementation	N/A	Additional funding
4.2 Provide uniforms to the TPA Administration staff.	All administration staff has a uniform.	Implementation	N/A	Additional funding
4.3 Provide necessary transportation for TPA	Necessary transportation	Implementation	N/A	Additional funding

Administration (including, for protection purposes).	(including for protection purposes) in place.			
4.4 Obtain funding for the development of a new information centre for the Administration and visitors in Alvani.	Work accomplished towards obtaining funding for the development of a new information centre for the Administration and visitors in Alvani.	Implementation and coordination	Partner organizations	N/A
4.5 Provide fire fighting equipment and transportation.	The Administration is well equipped to carry out fire prevention and management activities.	Implementation and coordination	Partner organizations	Additional funding

e) Action plan for Strategic Objective 5: Development of new partnerships and maintaining the existing relations with the stakeholders, donors and support groups.

Activity	Result/Outcome	APA/TPA role	Involvement of partners	Assumption
5.1 Support resumption of TPA Consultative Council for facilitating TPAs effective management and implementation of the Action Plan.	Works carried out for facilitating revitalization of TPAs Consultative Council	Implementation	N/A	N/A
5.2 Ensure a close cooperation with local municipalities and support the development of Protected Landscape management plan.	Regular meetings held with the municipality.	Implementation	N/A	N/A
5.3 Support the Tusheti PL Management.	Joint activities planned/implemented	Implementation	Tusheti Protected Landscape Administration Partner organizations.	Additional funding (for some joint activities)
5.4 Establish links and partnerships with corporate businesses and gain their support to TPA and its activities.	Meetings held with corporate business representatives.	Implementation	N/A	N/A
5.5 Cooperate with responsible agencies for the rehabilitation of Alvani-Omalu motorway for the improved movement and extension of travel season.	Meetings held with respective institutions.	Implementation	Local municipality.	N/A
5.6 Cooperate with relevant agencies to set up an emergency assistance and	Meetings held with respective institutions.	Implementation	Local municipality	N/A

triage facility in Omalo, which would operate through the entire tourist season.				
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Article 45. Program for the Preservation of Cultural Heritage

1. Targets of the Cultural Heritage Preservation Program

The following targets have been set by APA to be achieved within the term of this Management Plan with the indicators which will be used to assess progress:

#	Target (i.e. what we intend to achieve within the term of the Management Plan)	Indicators (what to assess to measure the achievement of the targets)
1.	Support improving the status of Tusheti cultural heritage in cooperation with the Protected Landscape Administration through promoting the significance of Tusheti cultural heritage.	<ul style="list-style-type: none"> – Examples of joint projects/ activities; – Condition of priority elements of cultural heritage improved.

2. Objectives of the Cultural Heritage Preservation Program

Strategic objectives set by APA in order to achieve the above targets are as follows:

1.	Improving the knowledge on the current status of Tusheti cultural heritage.
2.	Facilitating public awareness of Tusheti cultural heritage and traditions.
3.	Increasing benefits from the cultural heritage of Tusheti.

3. Cultural Heritage Preservation Program Action plan

The following are the planned activities APA intends to implement to attain each strategic objective:

a) Action plan for Strategic Objective 1: Improving the knowledge on the current status of Tusheti cultural heritage

Activity	Result/Outcome	APA/TPA Role	Involvement of partners	Assumption
1.1 Set up a GIS database of cultural heritage monuments on TPAs territory.	Cultural heritage GIS database and maps	Support	Local municipality, relevant State institutions, partner organizations.	Additional funding

b) Action plan for Strategic Objective 2: Facilitating public awareness of Tusheti cultural heritage and traditions.

Activity	Result/Outcome	APA/TPA role	Involvement of partners	Assumption
2.1 Prepare publications e.g. information sheets/ brochures on significant elements of Tusheti culture (cuisine, games, traditions, architecture)	Respective publications (information sheets, brochures, etc.)	Facilitation and implementation	Expert(s) and partner organizations.	Additional funding
2.2 Stimulate interest towards Tusheti culture in schools and universities, as well as among visitors through conducting lectures and presentations.	Lectures held and presentations made regarding Tusheti culture.	Facilitation and implementation	Expert(s) and partner organizations.	Additional funding

c) Action plan for Strategic Objective 3: Increasing benefits from the cultural heritage of Tusheti.

Activity	Result/Outcome	APA/TPA role	Involvement of partners	Assumption
3.1 Support representatives of Tusheti folklore and traditional art, and facilitation of their participation in festivals, cultural events and tourism exhibitions.	Representatives of Tusheti traditional art participate in festivals, cultural events and tourism exhibitions	Support and implementation	Local municipality, partner organizations	Additional funding
3.2 Support guesthouse owners, so that they are able to present Tusheti culture to their guests adequately.	Guesthouse owners have necessary knowledge, skills and materials	Support and implementation	Local municipality, partner organizations	Additional funding
3.3 Support producers of traditional products (crafts, cheese, etc.) so that they are able to exhibit and sell their produce at the events organized by TPA Administration.	producers of traditional production (crafts, cheese, etc.), have participated in the events organized by TPA Administration.	Support and implementation	Local municipality, partner organizations	Additional funding

Chapter VII: Monitoring of the Management Plan

Article 46. Indicators and Criteria for their Selection

The Management Plan implementation indicators for the for long-term goals, strategic objectives and activities per each program are described in detail in Chapter VI. Selection of those indicators was based on their measurability (quantitative and qualitative) and implementation timeframe.

Article 47. The Objective of Management Plan Monitoring

Assessment of the progress achieved in the implementation of this Management Plan, and timely identification of changes in natural and socio-cultural environment for enabling TPA management to adapt.

Article 48. Management Plan Monitoring Activities

Key condition to adaptive management is practical revision of the plan. It is necessary to conduct annual monitoring and assessment of every activity. The results should be reflected in the management decisions. Management monitoring and assessment implies utilization of various means, including:

1. Socio – economic monitoring

Significant aspect of management is monitoring socio-economic trends and opinion of the local population. The TPA Administration has been conducting annual socio-economic monitoring and assessment procedure since 2005. This process should continue further on.

2. Management Effectiveness Tracking Tool (METT)

Management Effectiveness Tracking Tool is used worldwide to monitor the progress achieved in management efficiency, which allows for the collection of necessary data and assessment of the progress achieved over time. It has been successfully introduced in Georgia, and represents a harmonized reporting system for the PAs nationwide. The assessment process is relatively swift and easy and takes place annually. The TPA Administration has been using this procedure annually and this should continue further on.

3. Detailed annual reviews

Annual work plans prepared by the TPA Administration and APA define results to be achieved under each activity. Each activity results should be monitored on an annual basis. The results should be consolidated into assessment report to be used for the development of work plans for the consecutive years.

4. Monitoring and documenting the plan implementation

According to the work plan, the responsibility over the implementation of various sections of the management work plan will be assigned to various persons or administrative departments. All Administration staff should be aware of monitoring indicators. They should participate in the collection of necessary data and information to assess how the set indicators and targets are met. Regular staff meetings are to be held to discuss the progress achieved.

Based on the discussions and ongoing monitoring results, specific recommendations will be developed regarding the modification of some activities under the management plan. These recommendations have to be prepared prior to the development of the annual work plan, so that

the activities planned in the following year are revised according to the experience received in the previous year, new circumstances or information.

Article 49. Management Plan Monitoring Work plan

1.	Conduct discussions and analysis of the data gathered as a result of the implementation of various programs of the management plan by the end of each year, so that the achieved results are defined, along with the noteworthy trends and conditions to be reflected in the following management practices.
2.	Maintain printed materials catalogue (library) related to the Park, which will bring together documents, such as work plans, survey reports, interpretation and educational materials, textbooks, press clippings, etc.
3.	Maintain an archive of relevant documents (presentations, received documents, reports, and photo data) by the assigned staff regarding consultations, educational and other meetings and seminars, as well as cultural events and festivals with various agencies, partners, natural resources' users, and with communities in general, and its specific target groups.
4.	Maintain an archive of all the strategic or legal documents, and reports of the conducted researches, projects, seminars, conferences and consultations.
5.	Conduct detailed annual review of the work plans to ensure that they reflect all the key activities spelled out in the management plan.
6.	Conduct comprehensive assessment of the management plan implementation on the 6 th year of its inception and considering the assessment results at the management plan review stage.

Appendices

Appendix #1: Tusheti Nature Reserve and National Park

Appendix #2: List of species found in Tusheti

Appendix #3: Species included in the Georgian Red List

Appendix #4: Distribution of key species

Appendix #5: management of Natural Resources (pastures, forest)

Appendix #6: Areas of Increased Fire Risk (forests)

Appendix #7: Zones of Tusheti National Park

Appendix 8: Geographical coordinates of the boundaries of the Tusheti National Park zones