



Georgia

Report on Reclassification of Tusheti Protected Areas



UNDP/GEF project "Catalyzing Financial Sustainability of Georgia's Protected Areas System" (00070382)

Testing site-level revenue generation mechanisms in Tusheti PAs

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June 2011



This report was prepared within the framework of the UNDP/GEF project under the consultancy service for “Testing Site-level Revenue Generation Mechanisms in Tusheti Protected PA’s” by the project implementation team.

The views expressed in this report are those of the author and do not necessarily represent those of the United Nations or UNDP.

Abbreviations Used

APA	Agency of Protected Areas
IUCN	International Union for Conservation of Nature
MoEP	Ministry of Environment Protection
NACRES	Centre for Biodiversity Conservation and Research
NP	National Park
PA	Protected Area
SNR	Strict Nature Reserve
TPAA	Tusheti Protected Area Administration
TPAC	Tusheti Protected Area Complex
UNDP	United Nations Development Program

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Executive summary

Correct and adequate zoning and spatial planning is an important prerequisite of the effective operation of any protected area.

Georgia has a long history of managing PAs, however, there is lack of experience of spatial planning of modern complex PAs.

Successful operation of PAs is practically impossible without managing conflicts with the local population. It is also a great challenge to ensure financial sustainability of individual PAs and the PA system as a whole. The key objective is to achieve some balance between the conservation goal, and the needs of meeting legitimate demands of the local population and increasing own revenues of the PA.

Issues related to spatial planning (zoning) both in terms of relations with the local population and with regard to the physical protection of the territories, emerged soon after the Tusheti PA Administration was set up and they began enforcing the relevant regulations. It became evident that ensuring effective protection of the territory and meeting livelihood interests of the local population required changes in the existing zoning of the PA.

In 2008 a special commission was established at APA to draw up concrete recommendation for reclassifying certain problematic sections of the Tusheti PA. Based on these amendments were introduced to the law on March 22, 2011. These changes on the whole can be viewed as an important step forward. However, there are still many issues identified as a result of recent surveys, which have not been reflected in the latest reclassification process.

The present document outlines recommendations and justification for additional 5 sections of TPA which can be summarized as follows:

- A total of 1,975 ha should be removed from the Tusheti State Nature Reserve of which 1,852 ha be reclassified as National Park and the remaining 123 ha as Protected Landscape.
- 4,177 ha of land (the Sources of the river Larovnistkali) should be removed from the Tusheti National Park and reclassified as State Nature Reserve.

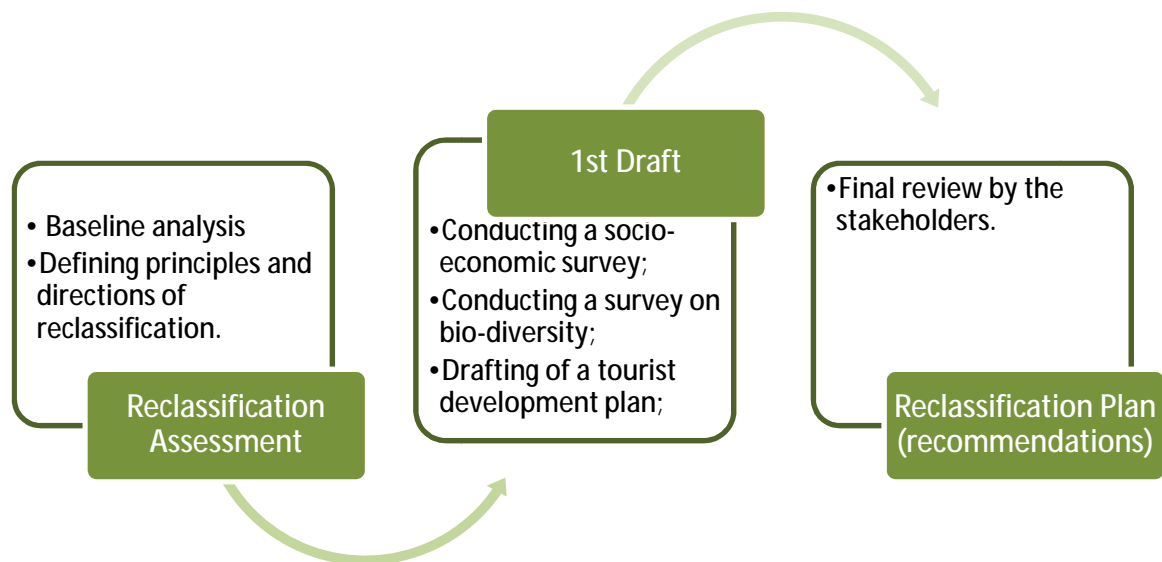
Recommendations with regard to internal national park zoning are also proposed.

1 Introduction

The present document is based on the findings of the Assessment for Tusheti PA Reclassification and other reports prepared within the framework of the given project in 2010-2011.

2 Development of the reclassification plan

The overall approach for the development of the Reclassification Plan for Tusheti Protected Areas (PAs) involved: (1) analysis of all the information available and filling in “the gaps” in the priority areas, (2) consolidation of all national and international experience and recommendations (e.g. IUCN and other respective guidelines), and (3) incorporating views of various stakeholders, especially those of the local population. Hence, the reclassification plan development process consisted of three consecutive phases (see diagram below):



As the diagram above displays, a reclassification assessment document was prepared at the initial stage of this process. The 2nd phase envisaged carrying out of specialized surveys and studies. The aim of the socio-economic survey was to identify the views of the local population, as well as their interests in terms of utilization of local natural resources; the biodiversity survey was implemented to update the existing data and gather new information to ensure that the main objective of the PAs, protection of biodiversity, be reflected in the new zoning to the maximum possible extent; tourism development survey and planning was also equally important, as the status of each PA implies the opportunities for development of tourism capacity and generating revenues from this sector. Following the 2nd phase, a draft reclassification plan was prepared, which was then shared with the Agency of Protected Areas in the form of recommendations.

3 Background: Why has the issue of Tusheti PA reclassification been put forward?

3.1 General overview

According to the most up-to-date definition recognized at the international level, protected area is: “a clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services¹ and cultural values” (IUCN 2008)².

For any protected area to comply with this definition and to achieve its utmost goal of long term conservation of nature, one of the key conditions is to have correct and adequate zoning and spatial planning.

Each category of protected area imply a different set of prohibitions, permitted activities and forms and levels of resource use. Zoning and spatial planning is adequate and effective when they create conditions for carrying out activities which are important for meeting cultural and economic needs of the local population through the establishment of respective protection mechanisms over the entire territory, without jeopardizing its main objective of nature conservation. Sustainable tourism development cannot be pursued without effective zoning. While tourism development itself can (and should) significantly contribute to financial sustainability of PA. Sustainable tourism can also be seen as the best alternative to direct use of natural resources by the local population.

Georgia has a long history of managing PAs, however, there is lack of experience of spatial planning of modern complex PAs. The Soviet system, which practically recognized only a single PA category “Strict Nature Reserve”, was substituted by the system responding to international standards (IUCN recommendations) only in second half of 1990s. The new PA system distinguishes 6 categories of PAs with differing aims and objectives, as well as protection regimes and use of resources.

Considering the need in increased ecologic effectiveness, many PAs have been expanded considerably. This has resulted in additional requirements and challenges in terms of their management; there have been frequent instances of potential or actual conflicts with the local population, or with those consuming local resources. The global experience shows that successful operation of PAs is practically impossible without managing conflicts with the local population. Such conflicts fuel antagonism and mistrust among the local population both towards specific PAs as well as toward the whole idea of protected area *per se*. This, eventually negatively affects the efficiency of individual PAs and the system as a whole.

In cases where reclassification of PAs or changes to its zoning is an absolute necessity, this process should be based on an comprehensive and thorough analysis to eliminate faults in the existing zoning

¹ecosystem services – implies all the benefits, which ecosystem brings without obstructing the achievement of conservation goals, proceeding from its environment protection functions and resources either existing on its territory or generated by it, e.g.: potable water supply, management of landslides or mudflows, indirect use, such as recreation, etc.

²Dudley, N. (Editors) (2008) Guidelines for Applying Protected Area Management categories. Gland, Switzerland: IUCN. x+86pp.

and incorporate, to the extent possible, the issues of resource use as well as local cultural peculiarities.

There may be several options of resolving conflicts with the local resource users:

- Correcting the existing spatial planning in a manner that would allow reaching consensus between PAs and local resource users;
- Development of alternative sources of revenue generation or introduction of other mechanisms, which would compensate for the restricted access to natural resources;
- Creating new incentives among the local population so that they become interested in PAs and conservation of biodiversity (the classical example of this is increased revenues from ecotourism³).

Apart from the conflict between the local population and PAs, it is also a great challenge to ensure financial sustainability of individual PAs and the PA system as a whole. Correct spatial planning is one of the key aspects in terms of increased revenues of PAs too.

The key task in tackling the problems cited above should be striking a balance between the goal of preserving biodiversity on the one hand, and the need in meeting legitimate demands of the local population and increase in the revenues of PAs, on the other hand.

3.2 Brief overview of Tusheti PAs: establishment, current status and zoning

The first protected area in Tusheti was established in 1980 as a small nature reserve which was managed by the Akhmeta Nature Reserve administration along with another 2 separate sites (Batsara SNR and Babaneuri SNR) also located in the Akhmeta District. The reserve in Tusheti was established with the primary purpose of protecting unique and untouched mountain pine and birch forests.

Tusheti PA complex in its current capacity was established in 2003 by "Law on the Creation and Management of the Tusheti, Batsara-Babaneuri, Lagodekhi, and Vashlovani Protected Areas". The total area of the PA complex is 118,319 ha and includes: (i) Tusheti State Nature Reserve (NR; 10,881 ha), (ii) Tusheti National Park (NP; 76,004 ha), and (iii) Tusheti Protected Landscape (PL; 31,434 ha). (See Annex 1 for map of Tusheti PA complex). In 2006 the Tusheti PA Directorate was established as a Legal Body of Public Law⁴ to manage the site on the ground under the supervision of the Department of Protected Areas of the Georgian Ministry of Environment and Natural Recourses. A major reorganisation took place in the national PA system in 2008 as a result of which the Tusheti PA administration became a territorial entity of the Agency for the Protected Areas (APA), itself a Legal Body of Public Law.

Presently by "Law on the Creation and Management of the Tusheti, Batsara-Babaneuri, Lagodekhi, and Vashlovani Protected Areas" the Tusheti NP and Tusheti NR are managed by APA's Tusheti PA administration and the Tusheti PL is managed by the the Akhmeta district municipality through its Tusheti territorial entity.

³On the other hand, development of ecotourism capacity might require some changes to be made in terms of spatial planning.

⁴"Legal Body of Public Law" is an official legal status of a semi-independent body.

In addition to the conservation of Tusheti's rich biodiversity the Tusheti PA complex administration has committed itself to contributing to regional development and to its own financial sustainability.

As defined by law (Law of Georgia on Protected Areas System, 1996) and its 2006 management plan each of the sites of the PA complex (NP, NR and PL) requires a specific protection regime and allows certain forms of use including resource use (see Annex #2 for details on legal status and protection regimes relevant to each of the 3 sites of the PA complex).

3.3 Issues related to the zoning

Issues related to spatial planning (zoning) both in terms of relations with the local population and with regard to the physical protection of the territories, have emerged immediately since the establishment of Tusheti PAs Administration and the beginning of the enforcement of relevant regulations. It became evident that ensuring effective protection of the territory and meeting livelihood interests of the local population required changes in the existing zoning of the PA. Hence, as early as in 2006, Tusheti PAs Administration submitted a proposal to MoEP on the reclassification (reviewing the existing zoning) of Tusheti PAs. The reason for requesting the review process presented by Tusheti PAs Administration was a growing discontent among the local population and inability of ensuring protection of territories within the existing resources and legally defined zones.

Since 2007 Protected Areas Department (later transformed into Legal Entity of Public Law or LELP "Agency of Protected Areas"), and the Agency for Sustainable Development Projects Implementation (Project Implementation Unit under MoEP) began to study the issue. An initial investigation and meetings with the local population were carried out in the main villages of Tusheti.

One year later (in 2008) the Agency for Protected Area (APA) established a special commission entitled "*Commission for Defining the Status and Changing the Designations of Some Sections of Tusheti PAs*", which was represented by APA specialists, as well as by the representatives of research institutions and NGOs. The commission members visited all the identified sections of the PAs, met with the local population and resource users as well as with the representatives of local authorities. In addition, an analysis of biodiversity data was carried out. The key objective of the commission's work was to eliminate or mitigate tensions with the local population. These conflicts were revealed to be mainly linked with the attempts to enforce limited access to natural resources. Consequently, managing the conflicts caused by limiting the access to vitally important natural resources was identified as the top priority. In Tusheti, such resources are fuel wood and pastures/hayfields. The commission prepared a document *Report on Defining the Status and Changing the Categories of Some Sections of Tusheti PAs* (Annex 3). The document outlines recommendations per specific sites on proposed changes in PAs status for certain territorial sections of specified size as well as brief justification for each proposed amendment. The majority of recommendations were made with regard to the forests situated near the settlements. The situation was such that due to the restrictive regime of the PAs, collecting fuel wood or any non-timber resources were completely forbidden, while the

village population had no other alternative, making it impossible and even inadequate to execute the protection regime.

On the basis of the conclusions prepared by the Commission in 2008, the status of several sections of Tusheti PAs have been changed as a result of newly adopted amendments of March 22, 2011 (see Annex 4 for the map). The affect of these changes on the sizes of the PA categories are summarized below.

	Strict Nature Reserve	National Park	Protected Landscape
As per 2003 Law (i.e. when established)	10,881 ha	76,004 ha	31,434 ha
Changes effective as of 2011	12,624 ha	69,501 ha	31,517 ha

The recent changes to some extent correspond to the outcomes and opinions formed as a result of surveys and analysis conducted within the framework of this project. We believe that these changes will mitigate conflict situations between Tusheti PAs Administration and the local population, which would contribute to the sustainable use of natural resources. Designating to the Speroza section as strict nature reserve is also a remarkable achievement. These changes on the whole can be seen as an important step forward. However, there are still many issues identified as a result of our surveys, which have not been reflected in the latest reclassification. Hence, in our opinion, there are still some gaps and faults remaining in the current spatial planning, which should be dealt with at a later stage. These gaps are as follows:

1. As a general comment, it should be noted that the new spatial planning of the Strict Nature Reserve (SNR) will contribute to reducing tensions with the local population. However, in terms of law enforcement (execution of protection regime) it will result in even more complications instead of simplifying the process. In the current situation we think that the problem of demarcation and identification of boundaries between the various PA categories will become more evident. Before the enactment of the recent changes the borders more or less strictly followed the outline of the forest stands. Hence the boundary the boundaries were easy to identify. Presently the border of the SNR in many sites cuts through the middle of a forest stand and does not coincide with any physical or geographic (natural) borders. This potentially creates the situation in which it is difficult to identify real boundaries of the reserve not only for the local people and visitors, but also for the park personnel. In such cases, one might question the practicality or importance of the reserve status for any particular site of SNR. At the same time, the total length of the SNR perimeter is more than 200 km, which significantly complicates the implementation of the reserve regime.
2. The recent changes in the zoning have further highlighted the fact that in many places the SNR represents isolated patches of rather small size. In general, such a spatial planning (with strictly protected "islands" within the landscape of less strict regime), is obviously not unacceptable, and is often necessary, however (1) for each of such "islands" there should be a sufficient justification with regard to its conservation value and protection effectiveness,

which in case of very small size and specifically for Tusheti being, is rather vague, and (2) such a patchy spatial planning may create serious management problems so that one might question whether such a planning inherently contributes to creating the situation where executing the law becomes extremely difficult if not altogether impossible.

3. Some of the sections extremely important for biodiversity which fully meet the criteria of strict nature reserve have been left out of SNR.
4. In some areas of SNR there still remains the possibility of emerging new conflicts with the local population whereas retaining these territories within SNR would only have minimum conservation effect i.e. the potential benefit to biodiversity conservation is unlikely to be significant against the potential damage caused by the discontent and unwanted behavior of the local population.

4 Recommendations on reclassification of specific sections

4.1 The slope opposite village Dartlo

The survey conducted in village Dartlo in July 2010 found and interviewed 12 households (the number of families in this and other villages of Tusheti changes from year to year), of which only one household lives in Tusheti permanently, others are summer visitors. The local population use the following natural resources: fire wood, timber for construction, pastures (some families keep cattle; there are 8 sheep farms near the village), as well as medicinal plants and berries. The number of people in the village sharply increases during festivals and this village as well as the entire surrounding area is becoming quite popular among visitors. Most visitors stay in Dartlo. The plan is to restore historical monuments of the village and turn it into a tourist centre of Tusheti.

During the 2010 survey five families noted that they encountered obstacles from TPAA in terms of using natural resources. Similar complaints were frequently reported by locals regarding the ban on using forest resources during the field works carried out by NACRES in 2009-2010.

It should be noted that forest resources for the population of this gorge remain only on the opposite slope of village Dartlo. As a result of the recent changes in the zoning a total of 73 ha of forest land was removed from the SNR and became part of the National Park to meet the livelihood needs of the population. However, transferring such a small portion of the forest area to the NP is unlikely to suffice to fully resolve the problem. More so that the real demand in both wood and non-timber resources has increased as a result of growing tourism and most probably will further grow in the future. Considering the limited scale of the forest resources transferred from the Reserve to the National Park, two possible scenarios can be predicted:

1. In the nearest future pressure on the forest section remaining within the SNR will continue to grow, which will require more administrative resources to ensure law enforcement, especially considering the fact the site is trespassed by several routes for transferring sheep as well as a motor road and a trail to the village of Chigho;
2. If the protection of the forest remaining within the reserve is *indeed* ensured (as prescribed by the law), it may create serious threat of degradation to the small portion of the forest outside

the reserve, as it would be practically impossible to ensure sustainable use of resources within such a small section of the forest (73 ha).

We believe that allocation of adequate amount of administrative and financial resources for ensuring the protection of the forest remaining within the territory of the reserve even if it was possible, would not be justified against the benefit received in terms of conservation.

Hence, it would be appropriate to have a larger portion of the forest, in total 735 ha moved from the SNR to the NP (Annex 5). This would allow the PA Administration to manage the forest resources in a more efficient and sustainable manner in the entire PirikitaTusheti gorge.

4.2 Forests near villages Vakidziri and Begela

With a view of meeting the livelihood needs of the population living in the villages of Ilurta, Gogrulta, Bukhurta, Vakisdziri, Begela and Vestomta, large portions of the forests adjacent to these villages have been reclassified from a reserve to NP. The forest has been practically divided into four parts, of which two sections have been moved to the NP, while the other two extremely small parts with a total area of 193 ha remain within the SNR.

We believe that leaving such a small section of the forest within the reserve would not have any conservation effect even if the proper enforcement of the strict protection regime is ensured. Justification is vague with regards to conservation effect deriving from splitting the forest and assigning different protection status to the relatively small adjacent patches. At the same time, such planning may contribute to additional complications in terms of management. Hence, it is advisable to reclassify the remaining portion of the forest from to NP (193 ha) (see Annex 6).

4.3 Territories adjacent to the villages of Khiso and Shrolta

Similarly to the situation described in the previous sub-chapter, by the recent amendments a small portion of the forest adjacent to the villages of Kumelaurta and Shrolta has been removed from SNR. However, we believe this is unlikely to be sufficient for mitigating potential conflicts. Considering the parameters (size, geographic location, etc.) of the territories that remain within the reserve, the expected conservation effect would not be significant against the efforts needed for ensuring effective management and protection. Hence, it is recommended to remove the remaining part of the forest adjacent to these villages (total of 924 ha) from the reserve and to include it in the NP. (see Annex 7).

4.4 Sources of the river Larovnistkali

Biodiversity assessment⁵ carried out within the framework of the given project in 2010 showed that the most important areas for East Caucasian Tur include the Atsunta mountain range: the Borbalo area, mount Amugo and the surrounding peaks, the Atsunta pass and Madnis Khorkhi. The areas near Amugo represent practically ideal habitat for the tur. This area includes the Nartsapi pass, where the

⁵ Report on Biodiversity Assessment on Tusheti Protected areas Complex, NACRES 2010 (GEF/UNDP)

river Larovnistkali takes its source. These remote areas offer abundant shelter and grazing areas for the tur; the territory abounds in natural springs and glaciers. As a result, this section of the PA is especially attractive to turs. Among other things this is also demonstrated by the fact that this site is practically the only area in entire Tusheti, where both females and males can be seen together year round (most part of the year the males remain at higher altitudes separately from the females).

Hence, the sources of Larovnistkali may be considered as an ideal tur habitat. The site should be considered the core zones for the tur range, which is probably extremely important for the entire tur population of Tusheti and possibly also of Khevsureti. Thus, strict protection of this area is necessary for the conservation of the East Caucasian tur both at the local and at the national level.

The conservation importance of the Larovnistkali area is so high that it would be justified to allocate considerable administrative and financial resources to this purpose. On the other hand, this territory has only a minimal socio-economical value. The gorge is characterized by severe climate and there are no forests there. Hence, this territory is less attractive to the shepherds and there are no permanent sheep farms. For the purpose of classifying this site as SNR, it is possible to outline the NR boundary so that it includes only a small portion of potentially usable pasture (392 ha). These are mainly pastures which are rarely used for grazing, only in the autumn, and only when the grass cover is scarce elsewhere. According to our information, these sections of the gorge are rarely used for sheep grazing and in fact remain unused from year to year. Hence, we believe that assigning the status of SNR to these territories should not ignite opposition among the local shepherds.

This territory does not have any significant tourist potential either. (Though it has great potential for conducting scientific research and educational activities. In this respect the SNR status would not be a problem. On the contrary such status would support it). The old management plan for Tusheti PAs envisaged one of the tourist trails crossing this territory. However later on it turned out to be less attractive to the tourists due to its difficulty. Currently, this route is completely removed from the tourist trails.

Considering the above, we believe the area of 4,177 ha where the river Larovanistskali takes its source (currently within the NP), should be assigned the status of SNR. The boundaries of this section of the SNR could run along the following territories: on the north, along the northern slopes of the Ruani mountain range at the altitude of 3,000 meters above sea level; on the east, along the Larovani pass (going into Khvakhidi), unnamed tributary of the Larovnistkhali and the Samvroni pass (along the border of the National Park); on the south, along the Pirikita mountain range, mount Samvroni, the Nartsapi pass and mount Nartsapi; on the west, the boundary could coincide with the existing border of Tusheti PAs (Atsunta mountain range) (see Annex 8).

4.5 Forest stands between the villages of Dochu and Bochorna

The very small forest stand of a total area of only 123 ha between the villages of Dochu and Bochorna on the left side of the river Tusheti Alazani is currently included in the SNR. As it was revealed by the updated vegetation map (forest cover map) prepared during the recent biodiversity surveys, only a fraction of this SNR site is in fact covered by forest. The site has only a minimal conservation value. On the other hand at least 2 people live permanently in each of the above two villages who obviously

need fuel wood. Hence this small section of the SNR appears to have some economic importance to the local people. We recommend to remove this site with the total area of 123 h from the SNR and reclassify it into PL⁶. (see Annex 9)

4.6 Summary of recommended changes

According to the recommended changes presented above, reclassification of Tusheti PAs include the following:

- A total of 1,975 ha would be removed from the Tusheti State Nature Reserve of which 1,852 ha would be reclassified as National Park and the remaining 123 ha as Protected Landscape.
- 4 177 ha of land (Sources of the river Larovnistkali) would be removed from the territory of Tusheti National Park and reclassified as State Reserve.

As a result, the spatial planning of Tusheti PAs would be as follows (see also Annex 10):

	State Reserve	National Park	Protected Landscape
Changes effective 2011 (i.e. current situation)	12,624 ha	69,501 ha	31,517 ha
Changes proposed by this plan	14,849 ha	67,176 ha	31,640 ha

5 Recommendations on internal zoning of the National Park

5.1 General context and the baseline

Above we have discussed the issues pertaining to the reclassification of Tusheti PAs – National Park, State Nature Reserve and Protected Landscape, which is a matter of legislation. Correct spatial planning is also of great importance for any national park. Indeed a national park itself implies various zones that may differ in specific management themes (protection, conservation, tourism, education, etc) as well as in objectives and goals, and consequently, in the prohibited and permitted activities. Unlike PA categories, the issue of internal zoning of a national parks is within the scope of the respective management plan.

The 2003-2008 management plan of Tusheti Nature Reserve and Tusheti National Park outlines the following zones of the NP:

⁶ Once reclassified into PL, the sustainable use of these small patches of pine forest should be ensured.

- Strict protection zone (approx 22,000 ha)
- Managed protection zone (approx 32,000 ha)
- Traditional use zone (approx 19,000 ha)
- Recuperation zone (approx 2,400 ha)
- Visitor zone
- Administration zone.

The two latter zones include respective infrastructural and functional zones and do not occupy space of considerable size.

The existing spatial planning of the National Park clearly provides theoretic basis for flexibility of management and achievement of various objectives. However, the experience of recent years gives grounds to doubts that the actual effect of such zoning, especially with reference to managed protection and traditional use zones. The situation is better in terms of strict protection zones, though it covers the areas where human access is extremely limited and hence, the protection is naturally ensured. Although the managed protection zone prohibits grazing it still includes pastures. On the other hand, the traditional use zone covers relatively small section and is not sufficient to meet the needs of local population (shepherds). The updated map of pasture habitats prepared last year within the framework of biodiversity survey revealed that a significant part of pastures remain outside the traditional use zone and are within the managed protection zone where grazing is not permitted. Such faults in the zoning makes it virtually impossible to ensure proper management of the National Park as required by its various zones. Due to this and other unsolved issues, the Park Administration is left with few choices but to direct much of its effort and resources toward the protection of the State Nature Reserve.

5.2 Recommended changes

Proceeding from the above, we believe that at this stage it is of utmost importance to change internal zoning of the National Park so that it ensures effective implementation of the following three objectives:

1. Maintaining priority components of biodiversity;
2. Sustainable use of pastures;
3. Development of sustainable eco-tourism.

At this stage it is less realistic to implement biodiversity restoration activities, as even the protection of the existing biodiversity and habitats are not fully ensured. However, as noted above, internal zoning is a matter of the management plan and if the implementation of restoration works becomes possible in the coming years, the allocation of the relevant zone should not be too complicated as it would not require legal changes but can be done through amending the management plan.

Hence, we recommend the following changes in the internal zoning of Tusheti National Park:

1. Increase the strict protection zone to include Larovnistkali sources (sub-chapter 4.4), unless (or until) this territory becomes part of the State Nature Reserve⁷.
2. Increase the traditional use zone, so that it covers the most part of both potential and actually used pastures of Tusheti, where traditional and sustainable management of pastures may be ensured. Also, all the reclassified territories to be removed from SNR and transferred into NP as recommended in Chapter 4, should be included in the traditional use zone of the NP.
3. Abolish the managed protection zone and reclassify it into the traditional use zone.

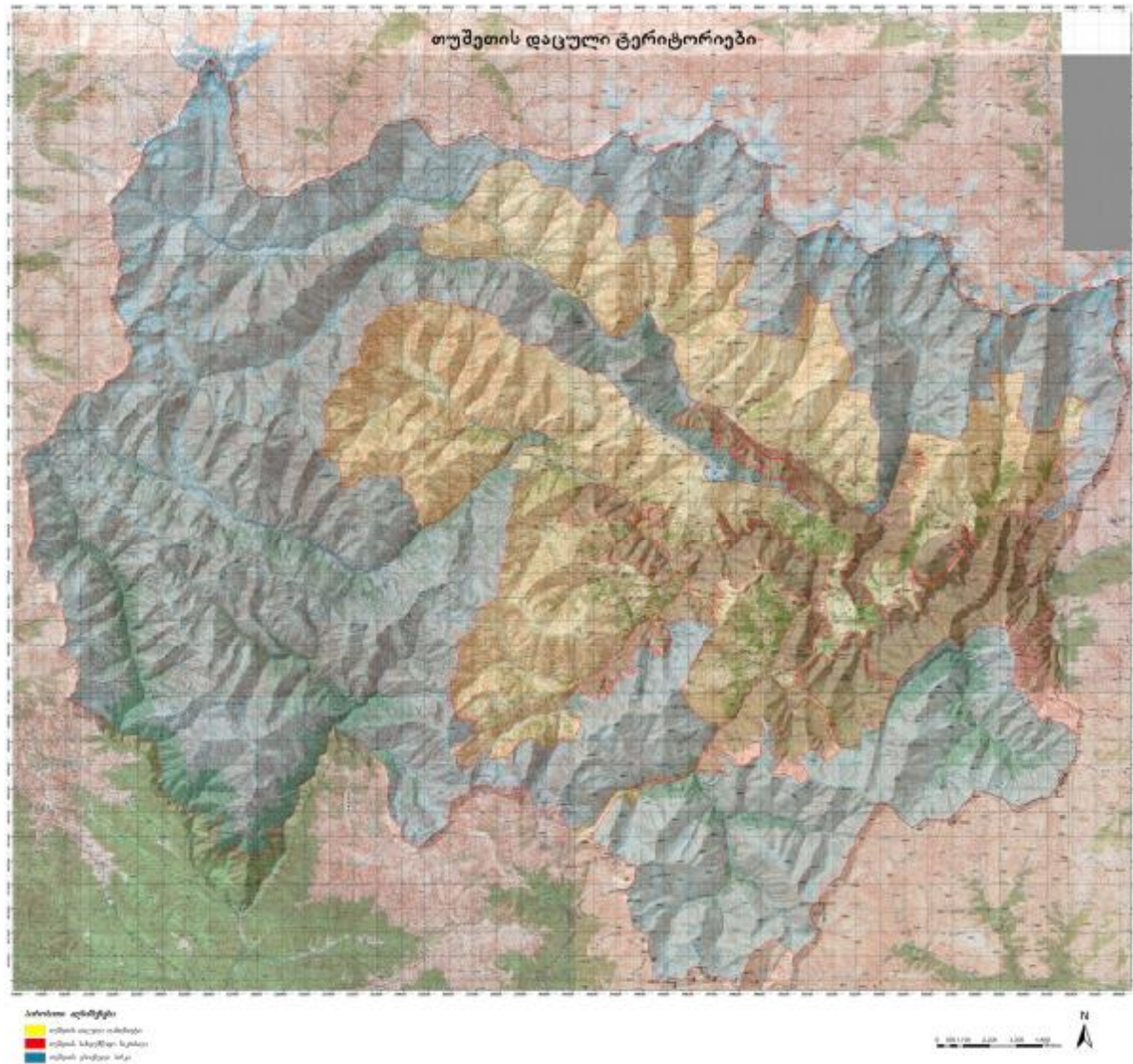
We believe that through the above changes it would be possible to achieve a simple internal zoning (see Annex 11), which should ensure maximum effectiveness of the National Park in the current situation. However it is important to note that the internal zoning of the national park should be a relatively flexible “live” process. Along with increased capacity of the administration and expanding its actual scope of activity, the regular revisiting of the internal zoning is required as one of the prerequisites of an adaptive management.

⁷ If the Atsunta pass is reclassified into strict protection zone the trail itself should remain within the visitor zone since this is an important tourist trail. Such an approach is a commonplace throughout the PA system of Georgia.

Annexes

ANNEX 1: The spatial planning (boundaries) of Tusheti PA complex in 2003
(Map provided by APA)

[Legend: Blue - National Park; Red – Nature Reserve; Yellow – Protected landscape]



ANNEX 2: Legal status and short description of Tusheti PA complex: Tusheti Nature Reserve, Tusheti National park and Tusheti Protected Landscape

(From Tusheti PA Management Plan, 2006)

State Nature Reserve

According to national legislation the State Nature Reserve is an insignificantly altered unique ecosystem. It is a valuable site from a point of view of scientific research. Protection status according to IUCN protection category I. The reserve aims at preserving the integrity of self-regulating ecosystem, as well as to protect and study it scientifically.

Regulation:

According to Article 20 of the Georgian Law on the Creation and Management of the Tusheti, Batsara-Babaneuri, Lagodekhi, and Vashlovani Protected Areas (2003) the following is permitted in the Tusheti State Nature Reserve:

- Scientific research;
- Admission of visitors with scientific and educational purpose;
- Collection of biological data with scientific purpose is strictly controlled and requires a special permit of Department of Protected Areas;
- Any scientific research and obtaining of information should be conducted by permission and under control of the Park Administration;
- Arrangement of any constant or temporary constructions and signs requires a special permission of the Park Administration;
- Moving is permitted only on foot and horse on specially designed trails.
- Implementation of measures necessary for fire control.

The following is prohibited in the Tusheti State Nature Reserve:

- Alteration of the ecosystem and its components;
- Any form of encroachment on renewable and especially on non-renewable resources whether for restoration, agricultural, recreation purposes or scientific research (damage, extraction, disturbance, including hunting, fishing, grazing of cattle, mowing, timber felling, admission and distribution of plants and animals);
- Pollution of environment (chemical, bacteriological, radioactive or any other kind of soil, water and air pollution, audio-visual disturbance);
- Admission and distribution of foreign or exotic living organisms;
- Admission of visitors for non-educational purpose;
- Bringing into the reserve of firearms, hunting and fishing tools or any other appliances;
- Staying of visitors within the protected areas, except places and time specially arranged for them (educational trails and designed places);
- Moving by motorized (car, helicopter) or any other type of transport (except horses);
- Construction of buildings, roads (save the Administration Zone);

- Change of state property on the protected areas and natural resources and leasing it out (except the Department of Protected Areas defined by the law).

National Park

Protection status according to IUCN category II. The overall aim of the Tusheti National Park is to preserve the rich natural heritage and to develop eco-tourism, as well as to maintain sustainable traditional economic activities and to implement the appropriate management regimes for the different zones of the park.

The following zones have been designated within the territory of the National Park:

- Wilderness zone (22,096 ha)
- Managed Protection zone (32,403 ha)
- Recuperation zone (2,376 ha)
- Traditional Use zone (19,129 ha)
- Visitor zone
- Administration zone

Wilderness Zone

The zone presents a self-regulating ecosystem, relatively less altered, with a retained natural shape and with excellent makings of eco-tourism and scientific study object.

Objective:

To preserve and protect the integrity of self-regulating ecosystem; to carry out scientific research; to develop eco-tourism for recreation purpose to a limited extent.

Description - substantiation:

The wilderness zone of TNP includes practically intact and well-preserved areas, namely tur habitats (Sajikhveebi), Caucasian rhododendron shrubberies and patches of pine forest. The protection regime as defined by law for the Wilderness zone is appropriate for the conservation of these natural areas.

Regulation:

Activities prohibited in the Zone:

- Any form of usage of renewable and especially non-renewable natural resources (violation, damage, extraction);
- Pollution of environment (chemical, bacteriological, radioactive or any other kind of soil, water and air pollution, audio-visual disturbance);
- Making fire and leaving of everyday rubbish;
- Movement by means of transport without approval of TNP administration;
- Admission of excessive number of visitors;
- Change of state property on the protected areas and natural resources.

The following activities are permitted in the Zone:

- Scientific research can be carried out only after a relevant contract is signed between a contractor and the TNP administration (and DPA), which defines duties and responsibilities of both parties (see section 5.9);
- Collection of biological data with scientific purpose is strictly controlled and requires a special permit of protected areas administration;
- Visitors are admitted only when it does not go in conflict with law enforcement, research and monitoring programs. Visitors strictly follow designated trails and routes.
- Design of any constant or temporary constructions and signs requires a special permission of the Park Administration;;
- Travel is admitted only on foot or horse.

Managed Protection Zone

Explanation:

The zone represents the natural landscape degraded under the influence of anthropogenic factors (felling, hunting, excessive grazing). The zone will ensure sustainability of ecosystems through strictly regulated measures.

Objective:

The key objective of the zone is to protect/rehabilitate biodiversity through active management in parallel allowing regulated ecotourism as well as research and education activities.

Description - substantiation:

The zone includes areas of TNP in which active management measures are required for the conservation/maintenance of natural ecosystems and their components. For example, the Vebo area is the only part of TNP where red deer are occasionally sighted apparently entering from neighbouring Dagestan. Through adequate protection and certain measures red deer individuals may be encouraged to remain on the site and establish a population.

The narrow sections between the protected landscape and the wilderness zone of TNP will also serve as buffer areas for the wilderness zone.

Regulation:

The following is prohibited in the Managed Protection Zone:

- Alteration of the ecosystem and its components;
- Damage, extraction of natural resources, hunting, fishing, grazing of livestock, mowing, timber felling;
- Pollution of environment (chemical, bacteriological, radioactive or any other kind of soil, water and air pollution, audio-visual disturbance);
- Admission and distribution of foreign or exotic living organisms;
- Bringing into the reserve of hunting and fishing or any other appliances;
- Staying of visitors within the protected areas, except places and time specially arranged for them (educational trails and shelters and specially designed places);
- Admission of excessive number of visitors that could be harmful to the environment;

- Change of state property on the protected areas and natural resources and leasing it out (except the Department of Protected Areas defined by the law).

The following is permitted in the Managed Protection Zone:

- Scientific research
- Activities that promote the restoration of degraded ecosystems and sustainable utilization of renewable resources;
- Any activity permitted in the zone shall be carried out with approval and under control of the administration of protected areas;
- Implementation of measures necessary for fire control;
- Facilities constructed for carrying out the permitted activities shall harmonize with the environment;
- Moving is permitted on foot, by car (with approval of the administration), horse and non-motorized boat on specially designed trails and roads.

Recuperation Zone

The zone is dedicated to recuperation of natural ecosystem damaged and altered due to anthropogenic influence (e.g. rehabilitation of vegetative cover, soils, animal species).

Objective:

Major objective of the zone is to restrict human activities imposing danger of further degradation of the environment; to ensure recuperation of wildlife and other components of natural ecosystem under permanent monitoring of the process.

Description - substantiation:

Chigos Khevi is an important part of the wild goat range. Due to past grazing the area is to some extent degraded and currently only rarely used by wild goats. However, the area has a good potential for wild goat recolonization from neighbouring areas.

Regulation:

The following activities are prohibited in the Recuperation Zone:

- Any activity that may cause/encourage further deterioration of the ecosystem and its components;
- Any form of encroachment on renewable and especially on non-renewable resources (damage, extraction, disturbance, including hunting, fishing, grazing of cattle, mowing, timber felling,);
- Pollution of environment (chemical, bacteriological, radioactive or any other kind of soil, water and air pollution; as well as audio-visual disturbance, except during the implementation of restoration programs);
- Admission and spread of non-native living organisms;
- Admission of visitors;
- Change of state property on the protected areas and natural resources and leasing it out (except the Department of Protected Areas defined by the law).

The following activities are permitted in the Recuperation Zone:

- Construction of infrastructure/facilities envisaged by or to be used for the implementation of the management plan especially restoration/natural recovery programs.
- In comparison with artificial interference, natural regeneration is given priority, if such a possibility exists;
- Monitoring of recuperation process should be carried out;
- Manipulations necessary for restoration are permitted;
- Implementation of measures necessary for fire control.

Traditional Use Zone

The zone is designed for meeting unchangeable economic interests of local population's by means of traditional use of nature resources.

Objective:

A major objective is controlled and sustainable utilization of renewable natural resources for meeting the economic interests of the local population, nature protection and monitoring provided.

Description - substantiation: the zone includes all sheep pastures located on the TNP.

Regulation:

The following is prohibited in the Traditional use Zone:

- Any form of usage of non-renewable natural resources (violation, damage, extraction);
- Pollution of environment (chemical, bacteriological, radioactive or any other kind of soil, water and air pollution);
- Admission and distribution of foreign or exotic living organisms;
- Admission and distribution of non-traditional breeds or crossing them with local kinds;
- Land cultivation and construction of nontraditional permanent structures related to agricultural activities;
- Movement by means of transport without approval of TNP administration;
- Admission of excessive number of visitors;
- Change of state property on the protected areas and natural resources.

The following is permitted in the Traditional Use Zone:

- Development of programs to ensure sustainable use of natural resources, as appropriate;
- All kinds of resource utilization are managed and controlled by the TNP administration in accordance with the relevant programs;
- Only traditionally constructed and arranged artificial objects, being in harmony with the environment are admitted in the zone;
- Only activities historically tested in these areas are admitted;
- Implementation of measures necessary for fire control.

Visitor Zone

The zone represents less damaged natural areas, where development of infrastructure connected with education and recreation activities is confined within the limits of providing optimal conditions for nature comprehension to visitor's benefit.

Objective:

To create conditions for comprehension of landscapes and natural sites by visitors without causing harm to the natural environment.

Description - substantiation: The zone covers a variety of natural and cultural heritage sites: scenic landscapes, diverse habitats including old growth pine forest, subalpine shrubbery, subalpine and alpine meadows, glaciers (the zone functionally also includes remarkable examples of Tushetian mountain architecture, churches, towers, functional and deserted villages, etc. that are located on the protected Landscape).

Regulation:

Activities prohibited in the zone:

- Encroachment of non-renewable natural resources (violation, damage, extraction);
- Pollution of environment (chemical, bacteriological, radioactive or any other kind of soil, water and air pollution, audio-visual disturbance);
- Making fire and leaving of everyday rubbish, save in places specially arranged for these purposes;
- Movement by means of transport without approval of TNP administration;
- Admission of excessive number of visitors;
- Collection-extraction of natural resources (flora, fauna, soil, etc.);
- Change of state property on the protected areas and natural resources.

Activities permitted in the zone:

- Arrangement of trails, shelters, sight-seeing platforms, resting places, bridges and roads integrated well with the landscape;
- Visitors are admitted only with education and recreation purposes to specially arranged places;
- Travel is admitted by car, on foot, astride, admitted is photo shooting and filming, visual observation without any disturbance for the resident flora and fauna.
- Night stay in shelters specially constructed for this purpose.
- An entrance-fee may be established, to be registered at the visitor centre.
- Implementation of measures necessary for fire control.

Administrative Zone

The zone embraces areas and respective infrastructures, used by the administration for providing protection measures, services, control and security.

Objective:

To provide the necessary infrastructure for efficient protection and management of the reserve and national park.

Regulation:

- Selection of sites for the purposes of administration infrastructure is carried out with due regard for the safety of environment.
- Only design of constructions and sites, which harmonize with the natural environment are admitted.
- Implementation of measures necessary for fire control.

Tusheti Protected Landscape

Protection status according to IUCN protection category V. The Protected Landscape is a large natural or semi-natural area of high aesthetic value. This category of protected area is established to preserve outstanding natural and/or cultural landscapes for recreation and tourism, and for the maintenance of traditional economic activities.

Objective:

The protected landscape aims at preserving unique ecosystems as well as historical and cultural sites of Tusheti, to address increasing recreation/tourism in the region by encouraging relevant infrastructure, to maintain and develop traditional culture and arts, and to promote sustainable utilization of renewable natural resources and traditional farming. Tusheti Protected landscape will contribute to the improvement of living conditions of local people, create new sources of income (tourism, market for traditional handicrafts), encourage the maintenance of endemic breeds of domestic animals.

Description - substantiation:

Tusheti Protected Landscape abounds in unique high mountain architectural monuments, historical, cultural and religious sites. Combined with exceptional natural and semi-natural landscapes they form a remarkable example of natural-cultural landscape of high aesthetic value.

The architecture and cultural heritage of Tusheti includes: (i) human settlements, e.g. unique high mountain architectural complexes of deserted castle-villages (Chontio, Hegho, Dakiurta, Old Diklo, Tsaro, Mozarta, Indurta, Etelta), villages with old as well as more recent architecture (Dartlo, Docho, Shenako); (ii) churches and other religious sites (so called Jvar-Khatis, tomb-churches such as found at villages Dartlo, Gudaanta, Tsaro, churches (examples of more recent Christian architecture at villages Jvarboseli, Bochorna, Iliurta, Omalo, Shenako, Natsikhari, Dartlo, Parsma), (iii) defense structures, castles and towers, (iv) archeological sites such as ancient settlements (Nishtakos Gori at village Shenako), tombs (villages Hegho, Chigho, Alisgori, Tsaro).

The historically developed settlement system in the Pirikita Alazani gorge is of linear type (along the river), in the Gometsari Alazani gorge is of blind alley type (along the tributaries of the Alazani), while in the Tusheti depression it is of a mixed type.

Most of the protected landscape has been heavily modified by centuries of human activities. Nevertheless practically intact patches of subalpine birch forest and Caucasian rhododendron still

persist providing critical habitat for the Caucasian Black Grouse. This vegetation is also important in respect of avalanche and erosion control. Many areas of the protected landscape are also important temporary or permanent habitats for the local wildlife including large mammals.

Sustainable use of pastures should not only ensure long term benefits to local sheep farmers but also contribute to the maintenance of viable wildlife populations, both on the protected landscape and the national park.

Regulation:

Activities prohibited on the protected landscape:

- Encroachment of non-renewable natural resources (violation, damage, extraction);
- Modification of cultural landscapes (i.e. all construction/reconstruction works must be carried out with due regard to the local traditional architectural style and only using traditional building materials).
- Pollution of environment (chemical, bacteriological, radioactive or any other kind of soil, water and air pollution, audio-visual disturbance);
- Distribution of non-native and exotic living organisms;
- Admission of excessive number of visitors;

The following activities are permitted on the protected landscape:

- Activities aimed at the preservation and restoration of natural, historical and cultural heritage sites
- Scientific research and biodiversity monitoring
- Activities related to ecosystem conservation and the rehabilitation of fauna and flora species
- Recreation, tourism and educational activities

Traditional forms of land use

ANNEX 3: Report prepared by “Commission for the reclassification of certain sections of the Tusheti PA complex” (an extract)

Present situation:

There is no alternative source of energy (gas, electricity) in Tusheti and local villagers depend on the forest for fuel wood throughout the year especially during the severe and long winters typical of Tusheti. On average up 12 sq. meters of fuel wood per person is needed for the winter season. On the other hand no resources may be extracted from nature reserve (NR).

Livestock farming is a major livelihood in Tusheti. During droughts some livestock has to be grazed in the forests near the villages due to absence of other alternatives. This is a violation of the protection regime too. Overall more than half of the total population use/depend on natural resources such as pastures, fuel wood, wild fruits and berries, etc. Therefore restrictions to the access to these resources naturally in local population’s discontent and significantly complicates the protection of the sites.

Considering the above, changes in legal status (category) for certain sections of Tusheti Protected Areas is recommended. These changes would enable sustainable/traditional use of natural resources. The change of reserve regime on certain sites adjacent to the villages and downgrading them to national park’s (NP) traditional use zone will resolve problems for local communities, which were actually caused by the establishment of Tusheti protected areas and introduction of certain corresponding limitations.

Part 1. Sections to be transferred from NR to NP

Total area: 2,507 ha

Chagma Gorge

1. Pine forest stands adjacent to villages Zemo Omalo and Kvemo Omalo and Tusheti protected areas administrative building: These sections include Tusheti PA complex administrative building and visitors’ centre as well as some tourist infrastructure. Considering daminsitrtative and touris purposes of these areas they should be transferred to NP

Village Omalo

Tusheti PA administrative building



2. Village Shenako is surrounded by pine forest. There area about 60 households of which 3 remain there throughout the year. Most villagers have livestock that often have to be grazed in NR. There are also livestock trails crossing through the area.

Certain small sections of the pine forests should be transferred to NP.

There is also abandoned village Ageurta with religious and cultural sites that also has tourist importance. These sites should also be removed from NR and included in NP.

3. Forests and meadows adjacent to village Diklo are included in NR. These areas are traditionally used by local communities for livestock grazing, hay, mushrooms and berries collection as well as for recreation. Certain sections of these areas should be moved to NP.

There are 14-20 families in Diklo during summer; among these 6 families have 75-80 livestock. 2 families stay in winter. There are also 3 summer sheep farms near the village.

The forest is typically pine rarely mixed with birch and poplar. Among red listed fauna there are wild goat, lynx, bear, etc. Other fauna include hare, wolf, marten, squirrel, etc.



Village Dikolo



4. Villages Chero and Intsukhi are located at the border with Dagestan (Russian Federation). The trail between these villages crosses through the NR forest. Therefore these sections should be transferred to NP. Village Intsukhi (106 ha) is located within NP and should be transferred to PL (Protected Landscape).

Pirikita Gorge

1. There are 65 families in village Dartlo, among them 5 are involved in livestock breeding, 1 remains over the winter and 8 have summer sheep farms.

2. There are 6 families in village Kvavlo, 1 has a livestock farm, 1 remains over the winter.

3. 35 families live in village Dano, 6 keep livestock, 1 remains in winter.

As from the above, local villagers are involved in livestock farming. The nearby sections of NR include livestock trails and pastures. A 300 m wide section of the reserve along the river Pirikita Alazani from the natural boundary to the Dartlo road (NR demarcation sign) should be transferred to NP.

The forest is typically pine in some areas there are also deciduous stands with birch including red list species such as Litvinov's birch, Rade's birch, also poplar, high mountain maple, etc. Local fauna includes red deer, roe deer, lynx, bear, etc.

The Atsunta trail (to Khevsureti) should be transferred to NP since this is a frequently used trail for livestock movement and also a popular tourist trail.

Gometsari Gorge

Villages Iliurta, Bukhurta and Vestomta.

10-12 families live in village Iliurta in summer, 2 in Bukhurta and 3 in Vestomta. Most of the local villagers keep livestock. The nearby forests are within NR and no livestock grazing, hay and fuel wood collection is allowed. There are 2 summer sheep farms just above village Vestomta. The trail between the three villages crosses through the reserve. There are also a religious site (Kasmuri) and Kasmuri castle in this section of NR. The local communities have annual village festivals at these sites.

In order to allow the above traditional activities and sustainable use of natural resources the forest and meadows near Iliurta, Bukhurta, Vestomta and Gogurta should be transferred to NP (Sections #14 and 15 of NR).

The road to village Iliurta is also included in NR. This road is frequently used by people and needs to be maintained annually that involves heavy machinery. Therefore the section can not qualify for NR and should be transferred to PL.

The forest habitat is typically pine. There is also birch and poplar, high mountain maple, etc. Local fauna includes red deer, roe deer, wolf, lynx, bear, etc.

There are also a number of tourist trails that also violates NR regime.



Villages Iliurta and Bukhurta

Chanchakhovani Gorge

Villages Kumelaurta, Tsokalta, Khiso and Chala. 10 families live in village Kumelaurta, 4 in village Tsokalta, 10-15 in Khiso, 8 in village Chala; there are 4 summer sheep farms above villages Tsokalta and Kumelaurta and 3 farms at Khiso. The nearby forests are within NR. There is also a religious site Chikhale where the annual festival "Atnigenoba" is held. At village Chala (protected landscape adjacent to the reserve) small hydro power facilities are being built with the support of the World Bank. The construction of these facilities would effect the reserve. However due to its significance and the above reasons the forest areas near Kumelaurta, Tsokalta, Khiso and Chala should be transferred to NP.



Hydro power facility construction site



Villages Kumelaurta, Tsokalta,

There are 2 summer sheep farms and a ranger station along the river Nakhidura (Samkhevi). There is also a road used for livestock movement from Kakheti to Tuseti and a livestock resting site near Urtsikhe.

The forest habitat is typically pine and birch. Local fauna includes wild goat, roe deer, lynx, etc. There is also the remains of a Soviet period power line.

Due to the above mentioned this lection does not qualify for NR should be transferred to NP.

Part 2. Sections to be transferred from NR to PL

Total area: 92 ha

1. The Diklo village cemetery and its immediate surroundings should be transferred to PL.
2. NR sections at villages Dochu and Beghela were included into NR by mistake in 2005. These areas have always been used by locals for various purposes. The forest is composed by pine and birch and there are also small stands of poplar. Local fauna includes wolf, red fox, bear, hare, etc.
3. Village Khakhabo is surrounded by NR forests. This village is located on the left of the river Chachakhovnis Alazani. The religious and annual festival site "Kerelovani" of this village is also on NR. These areas should be moved into PL.

4. There is a building owned by Tushetian sheep breeding company near Zemo Omalo and Kvemo Omalo and Tusheti PA administrative building. The small section of NR on which this building is situated should be moved to PL.

5. Meadows near village Goglurta should be transferred to PL.

6. There are 3 families engaged in livestock farming in village Vakisdziri, the Gometsari gorge. There is a summer sheep farm near the village too.

The local villagers have problems with the use of NR pastures and hay meadows as well as forest for firewood.

The NR sections adjacent to this village should be moved to PL.

The Commission also considers appropriate to transfer 4,368 ha Speroza section of the NP's Strict Protection zone be transferred to NR.

CONCLUSIONS:

The Commission recommends the following:

Considering social and economic needs of the local communities, the need of ensuring sustainable use of natural resources, and that of sustainable tourism development and in order to ensure effective conservation and management measures, (1) 2,507 ha of NR should be transferred to NP and 92 ha of NR should be moved to PL with total area of 2,599 ha to be removed from NR, (2) 106 ha of NP to be transferred to PL and (3) 4,368 ha of NP's Strict Protection zone should be transferred to NR.

PA category	Present size	Proposed size
Tusheti NR	10 858,2 ha	12 627 ha
Tusheti NP	71 482 ha	69 515 ha
Tusheti PL	31 320 ha	31 518 ha
Total	113 660,2 ha	113 660,2 ha

ANNEX 5: Recommended changes: village Dartlo section

(a) Present



(b) Recommended



ANNEX 6. Recommended changes: Vakisdziri and Begela section

(a) Present



(b) Recommended



ANNEX 7. Recommended changes: villages Khiso and Shtrolta sections

(a) Present

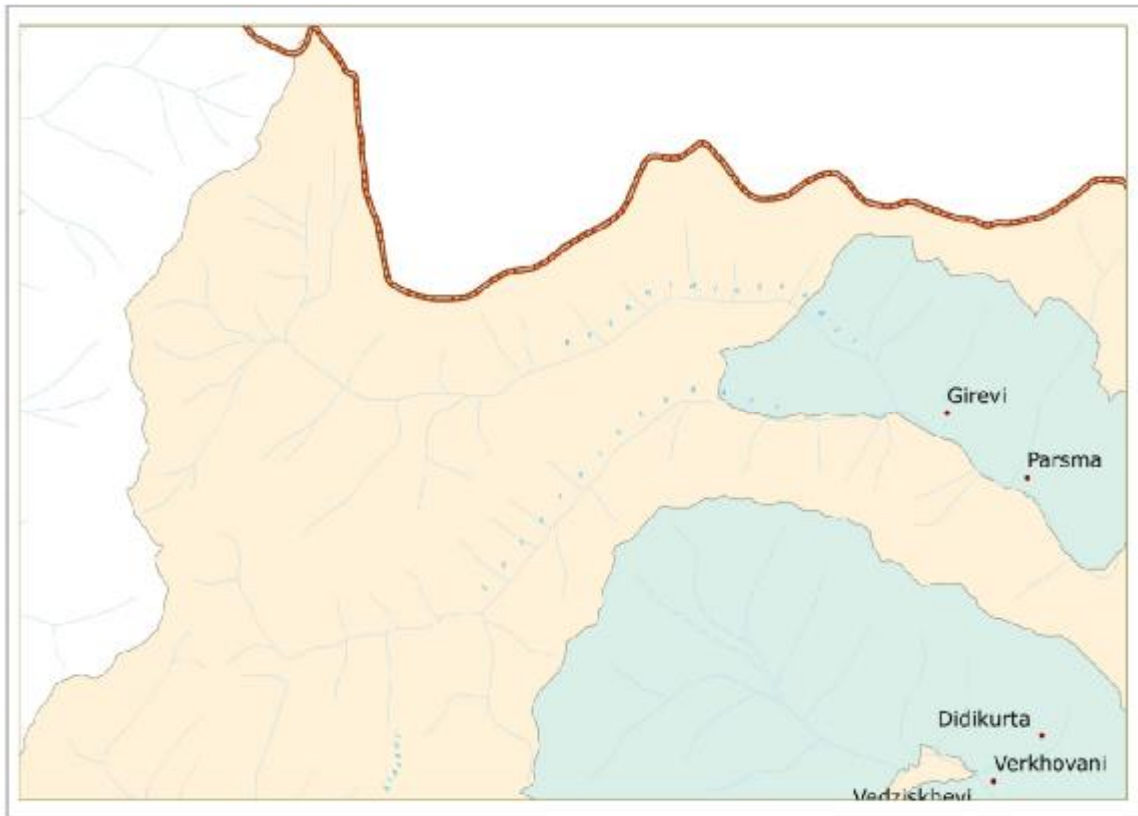


(b) Recommended

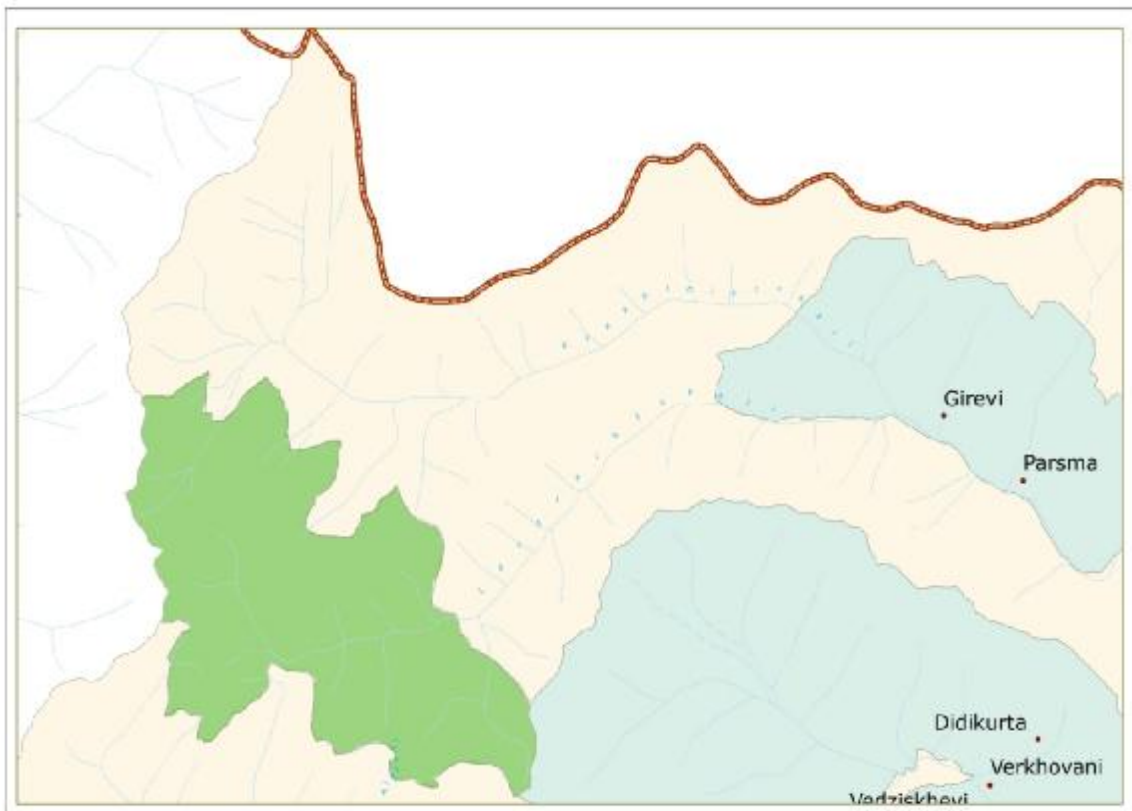


ANNEX 8. Recommended changes: Section of Larovanistskali source

(a) Present



(b) Recommended



ANNEX 9. Recommended changes: Forest stands between Dochu and Bochorna

(a) Present



(b) Recommended



ANNEX 10. Tusheti Protected Areas: Recommended Spatial Planning

