Sustainable approach in managing tourism practices of Belarusian national parks: Berezinsky Reserve and Belavezhskaya Pushcha cases

ANATOLI KLIMCHUK

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Acknowledgments

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Part 1. Introduction

This chapter outlines the broad field of study and then introduces the research problems addressed within this thesis. It provides a thesis outline and describes the intended audience for the thesis.

1.1. Nature of problem

At the global level, recently tourism business has yet considered as one of the largest industries. It produces 5.5% of global GDP and employs 212 million people, and accordingly to the World Resources Institute, tourism overall has shown 4% growth per annum [WTO, 2001]. In 2020 total turnover from international tourism (excl. inside) is projected to reach 2 trillion US dollars, as a result Global Domestic Product by tourism will practically double. Requirements to implement sustainable management for this large industry are becoming important challenges to achieve global development aims for society.

Tourism is defined often as a travel with recreational and educational aims. Such traveling has a number of close relations with environment. Transportation and consumption of tourism services is an important aspect of adverse environmental impact, as time progresses, it is assumed that the extent of tourism will grow [WTO, 2007] and become one of the main categories of environmental impacts among anthropogenic environmental pressures.

Additionally, tourism has a major impact on local communities in tourist destinations. It can be a significant source of income and employment for local people, yet also pose a threat to an area’s social fabric, natural and cultural heritage, upon which it ultimately depends, however if tourism is well planned and managed it can be a driving force for natural and cultural conservation. Moreover, much tourism has remained a destructive force for natural areas, often in combination with detrimental socioeconomic effects for the communities within which it operates. These factors have led to recognition of the tourism sector’s need to incorporate the principles of sustainable development.

Additionally, accordingly with the prognoses made by WTO, CIS and Eastern Europe is considered as the region with the fastest growth rates over the 2000-2020 period for the tourism industry [WTO, 2001]. This is mainly due to the economical growth in these countries and Western Europe, the biggest world consumer of tourism products and services. However, in the region there is a lack of experience of visitor managing due to relatively short time of tourism practices; and problem of the managing tourism is becoming actual and central for these trends. Tourism has, in recent years, received increasing attention as a low-impact, non-consumptive development option, in particular for developing countries. This positive view contrasts with the fact that major parts of the tourist industry have remained harmful to the environment and that some aspects, like the use of energy and its global consequences have virtually been excluded from the discussion on sustainable tourism development [Gössling, 2000]

Tourism growth includes a wide range of recreational activities. And it is evidently that the tourism based on protected area is also becoming more popular. The world in the future will provide a wide penetration of technology into all spheres of life. Therefore, it will become possible to live with limited exposure to other people and nature; and in consequence, people will crave the human relations and nature landscapes, so, nature-
based tourism will be the principal means through which they seek to achieve this. Protected areas will play tourist role, as well as a protective role for increasing industrial pressure on the human environment. At the same time, living species are threatened as never before, as the protected areas are exposed to the pressures of unsustainable development. It is mandatory to use the precautionary approach concerned about tourism in protected areas, given the risk of damage and destruction to this unique natural resource. Visitor impact management is ever more important as the number of tourists increases, and their distribution is often concentrated in major tourism destinations in ecologically vulnerable areas.

Although Belarus legislation has the list of general aims for development tourism in sustainable way and especially in protected area, there is apparently lacking of necessary investigations and management practices in the tourism activity. Mostly all protected area does not have sustainable tourism practices and management procedures. In accordance with the last report made by UNECE in 2005 there is still no one investigations concerned tourism impacts over protected areas in Belarus as well as certification papers that encompass performance indicators for implementation of eco labels in tourism do not still exist. Therefore, the study will add some practical data concerned these aspects and try to make a review on current conditions for effectively tourism developments within study areas and for further investigations.

1.2. Aims, Objectives

Literature sources and practical examples indicate that in some cases tourism may provide new alternatives to develop visitor experiences with greater economical incentives and less environmental burden. However, it is unclear which drivers influence Belarusian tourism in protected areas, and what areas should be the focus of future research.

Therefore, the aim of this work is to make effort to determine the management systems within the Belarusian national parks (the National Park “Belavezhskaya Pushcha” and the Reserve “Berezinsky), accordingly a sustainable approach with accent on monitoring tourism phase, as a decision making tool for sustainable tourism management and improvement of local conditions.

There is a certain range of objectives to achieve the main goal which is listed below:
- To identify key principles of the management systems within study areas;
- To identify regional and local features of existing management practices;
- To find the advantages and disadvantages of current tourism trends within the considered areas;
- To explore a system of monitoring related to sustainable perspective;

1.3. Target group

The given research is provided for individuals who are involved or have an influence over the monitoring and management within Belarusian’s protected areas. This could be included the following stakeholders:

a) The-body of staff and organizations which are involved in protected area management;
b) External organization and individuals that are important and share benefits in tourism industry in natural parks

c) Stakeholders which maintain services within the territory of the areas. This should include transport organizations, restaurants, accommodation, etc.

d) People who contribute effectively to management and promote legislative and financial support etc.

1.4. Scope of the study

This research investigates tourism management practices in the Belarusian national parks and, additionally, focuses upon its monitoring process. The study tries to show how the approach of sustainability (complex focusing) in management can define current problems and help to achieve economical and societal benefits without increasing environmental pressure in protected areas. This scope defines the choice of national parks and system boundaries.

System boundaries for the research might be measured within the part of Management Plan for tourism in a protected area. However a view of the problem is closely connected with other aspects such as accordance with general purpose of protected areas management and crossing interested of different stakeholders within protected areas. Thought, these requirements create a wider view of the problems determination and solution. Also sustainable projection for the problem solution obliges to include as much as broader view for tourism complex and its interrelations with each component of sustainability.

One specific feature is important for the scope definition. From one side, the bulk of primary data in this research was collected in Belarus. Therefore, the specific Belarusian cultural and economical background, mostly based on the absence of market practices in tourism and non-high-consumption patterns in low-developed tourism system, makes empirical data different from data of developed countries. From other side, the concept of sustainable tourism and examples for recommendations are mostly based on experiences from high developed countries.

These variances influence on the extent of the scope and make it wider, taking into account aspects of international experience, national features and samples from developed countries.
Part 2. Methodology

This chapter identifies the processes developed during the research of this topic, it includes the structural logic for research, and main methods and tools used.

2.1. Methodology process

The design of research is important because it aims and focuses research activities, including data collection, in ways that are most likely to achieve the aim of the thesis. Firstly, it is mandatory to make the choice of what is of primary importance: theory or data, since the concept of sustainable tourism has a plethora of definitions and is still in the process of definition, management theories and national park data could apply to the tourism development field, as an equal issue comparing with international guidelines.

To fulfill the research goals, the following design was developed. The study went through the following five steps (see Table 1):
- conceptual phase;
- field observations;
- data analysis;
- recommendation process;
- discussion of relevant topics and conclusions.

<table>
<thead>
<tr>
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<th>data analysis</th>
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<th>discussion, conclusion</th>
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<td>explore sustainable tourism concepts, define Belarusian case</td>
<td>identify tourism and management system in protected areas</td>
<td>evaluate the current situation, develop a framework for tourism evaluation and development</td>
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<td>Review of tourism sustainability, research gaps</td>
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Table 1. Methodology process

The first conceptual phase was devoted to establishing the state-of-the-art in tourism management in Belarusian protected areas; to define Belarusian current trends concerning tourism development, relevant literature on indicators for sustainable tourism was also covered.
To provide a legal background of the case study and get an understanding of the general management system for national parks of Belarus, the national legislation was reviewed. Also, a brief overview of the National Development Tourism Plan 2006-2020 was carried out in order to assess the aims of park development against national and local levels.

The field research is based on the number of protected areas included one national park and one natural reserve. The criteria for selecting an area are listed below in the chapter “Criteria selection process”.

The process for the definition of study areas was dependent upon the possibility to contact relevant persons who are in charge of tourism within the areas. During this phase, all parks (four national parks and one reserve) were asked about their wishes to fulfill questionnaires; however, only two wanted to participate in the study. A questionnaire was then submitted to the parks/reserves that wanted to take part in the study. Questions were regarding different objects from general data (number of visitors) up to specific indicators for the certain type of monitoring. Therefore, it is mandatory to fill the questionnaire by more than one person. The process was commenced in October 2006 and was carried out until the beginning of November 2006.

Two first phases of the study employed structured and unstructured interviews. In the first phase, one interview in Tyrestå national park was conducted with Peter Westman. The participant was asked about Swedish system of National park and to describe advantages and disadvantages of current tourism trends in the Tyrestå.

In Belarus, two study areas were visited. A range of experts were asked to provide their ideas about complex tourism management and to identify current problems taking into account their professional skills.

In the National Park “Belavezhskaya Pushcha” five interviews were conducted during 23-25 October, 2006:
- In the research department: a head of the department, a head consultant and a GIS-engineer;
- Forestry department: a specialist of forest diseases;
- Tourism department: a head of the department.

In the reserve “Berezinsky” during 9-11 October, 2006 three interviews were carried out:
- Tourism department: acting director of tourism sector;
- Monitoring eco-station: a leading specialist;
- Research department: a zoology specialist.

Moreover, the interviewed persons were asked accounting questionnaires (see below in the chapter ‘Criteria selection process’).

In the data analysis phase, a framework for sustainable tourism evaluation and development was provided in protected areas, based on the analysed literature and collected empirical data. It identified 3 major elements: external factors, park management and tourism system. Also, monitoring part was proposed separately. These issues embraced three spheres: economical, environmental and social. Within the data
analysis, current problems and possible future trends in Belarusian tourism development are disaggregated and, therefore, it outlines needed background for further phases.

Recommendations were based mainly on the data from official guidelines provided UNWTO [WTO, 2001, 2004, 2007], tourism management guidelines [Eagles et all, 2002], guide for Swedish ecotourism development [Nature’s best, 2005] and relevant data from literature with study visits experiences which includes three parks: Tyrestå, Berezinsky reserve, and Belavezhskaya Pushcha. During preparation for recommendations a main list of distinguished development directions were as follows: general improvements; plan management improvements; environmental improvements; market improvements; safety; service and educational level of staff; technological improvements; management of conflicts; eco-tourism and ecological education; and, separately, monitoring proposals.

Discussion on relevant topics and final conclusions are based on the literature review, received recommendations and the author’s point of view relating to the different ways to deal with the problems encountered. Discussions pertained to problems of tourism significance for protected areas, stakeholders, zoning aspects, market-state relations, possible conflicts and monitoring issues.

2.2. Criteria selection process:

This section relates to the criteria that were used for field practice, such a selection is influenced greatly by the empirical data received during visits to the national parks.

Criteria for selecting of an area are listed below:
1. They are located in Belarus;
2. One of the purposes of a park or reserve is for recreational use
3. Parks and reserves have a managerial staff that is able to establish tourism development plans and also are in charge of its performance.
4. Certain number of monitoring has to be performed on the site.

It is mentioned afore that one of the aims of the study is to provide possible alternative ways for development of tourism within protected areas, in particular, environmentally benign destinations of tourism. Therefore, from the author’s point of view two parks in Belarus have the biggest opportunities and potential for such challenges: National Park of Belavezhskaya Pushcha and Berezinsky Reserve. Motivation for their selection follows:
- These areas are the oldest protected areas in Belarus; therefore, it is likely that they have most undisturbed ecological systems with broad biodiversity.
- Abovementioned conditions are main factors for ecotourism development.
- These sites are the most popular brand in Belarus among protected areas [Mozgovaya, 2004].

Questionnaire design methodology
Factors that have influence on the questionnaire’s design:
1) The questionnaire was designed using information available on the internet and accessible literature sources taking into account availability of local data.
2) Simplicity of questions: major amount of the question had a close type (yes/no or ranking)
3) Sizeable but not exceed design is more preferable
4) Use of ranking for too subjective question options: from “strong” to “absence”
5) Sustainable approach for selection of questions: have to cover at least bilateral relations;
6) More detail design for monitoring system chapter of the questionnaire.

It is important to define the order and logic that was chosen for the questionnaire’s design (figure1). This order is based on the approach and frameworks given by Eagles, 2002 and WTO report “Tourism vision 2020”.

Furthermore, assessment questionnaires were divided into three large parts, each having its own and general aims. The first covers problems and also relates to problems within the whole park management system, a more detailed description is presented below in chapter “Data analysis”. The second part provides characterization of tourism activities and educational elements. The third part includes aspects of special tourism monitoring operations and structure.

Figure1: shape of the questionnaire

2.3. Limitations and Data availability
The research is not focused on the cost-benefit or other market analysis which can be useful for the comparison. This is due to the main aim of the study to make one of the first efforts to assess tourism in Belarusian protected areas in qualitative way and lack of information needed for aforementioned analysis. There have also been no case-studies to implement recommendations and prove their reliability.

It was not possible to make a comparison for the questionnaire and indicators for tourism system evaluation in Belarus because no other similar complex research problems concerning these issues. However, there were a number of surveys made by national scientists to evaluate possible opportunities for tourism development and to define current problems. These surveys are close to complex researches but the data collection process is not well developed and embraces mostly theoretical deductions.
The main limitation factors within the study are defined as time boundaries and capacity to research. During the research it was possible to visit the parks for only for 2-3 days each. Such a short time period limits the access to all needed aspects, and it was almost impossible to find all required data issues. Furthermore, not all needed persons were asked with the questionnaire.

From other side, complete data collection managed to be very complicate. One of the most important reasons was a broad definition of sustainability. Therefore, relevant data might be located in different departments. It was very hard to get an access to all needed information concerning economical, societal and environmental aspects. Furthermore, not all departments made researches concerning tourism activity. More detailed information can be found in the paragraph “Data searching process” below.

**Data searching process from study areas**

Three types of information were used and described within the study areas: environmental, economical, and social. However, the analysis is mostly based on the environmental information due to data availability. The lack of information concerning infrastructure and economical operations was present among data gathered; hence it is hard to establish complex estimations for protected areas. Definitions of several economic and social issues which cover relatively broad easily derivable information were chosen for data collection. The model of criteria for the study is provided below in the figure 2. However, it would be wrong to say that economical and social criteria have influence less than environmental influences. Such a ranking is made due to availability and accuracy of the data. The main aims of protected area environmental elements have to be crucial in decision making and activities within these areas.

It is evident that the accuracy of the data from the study areas (i.e. documents, interview, and questionnaires) is influence directly by process of recommendation making in most cases. On this basis it clear that the environmental recommendations have better support.

**Figure 2:** Data analysis: availability ranking
Part 3. Literature review
This chapter charts the body of knowledge in the immediate field of the research – tourism in protected areas.
This Literature review covers several main areas of study:
- History of definition and concept development for sustainable tourism trends;
- Overview of tourism management aspects in protected areas.
- Belarusian regional science information concerning tourism development are evaluated and discussed.

Concept of sustainable tourism
The concept of tourism has been shifting from the middle of the 20th century to present times. The evolution of the concept is well defined by Gössling (2000). He distinguished four phases of tourist:
- Optimistically point concerning tourism. The idea of tourism development includes only a positive increasing role of tourism in economy.
- Criticism second phase: when critics argue strongly that the economic benefits for countries are negligible, with negative sociocultural and environmental effects often dominating the developments
- Eco-tourism phase: The negative environmental effects now become increasingly obvious, which led to increased resistance from local residents, NGOs and the public. Secondly, the criticisms have also led to impact assessments and the development of new concepts which focused, for example, on acceptable visitor densities and maximum carrying capacities.
- Sustainable tourism. The paradigm of ‘sustainable tourism’ was derived from that of ‘sustainable development’, this being introduced on a global scale by the World Commission on Environment and Development (WCED, 1987). The perception of tourism became optimistic once more, with criticism being substantially reduced. Based on the assumption that integrated planning can avoid most of the negative impacts, tourism has been re-discovered in the aid policies.

As can be seen from the concept, the paradigm of “sustainable tourism” has emerged not long ago. The term ‘sustainable tourism’ and its concepts are relative to the perspective of the stakeholders involved such as: tourism industries, governments, international non-governmental organizations, local communities, environmental activists and other tourism stakeholders. The fact that a universally acceptable definition is still changing is evident from the literature. However, it is possible to distinguish a range of trends used for the concept [Clarke, 1997].

J.Clarke provides the further four positions:
1) The first position is the idea about polar opposites. A term adapted from Pearce (1992), the first, and perhaps the earliest of the four positions, was that of mass tourism and sustainable tourism conceived as polar opposites. Alternative tourism was the popular label for sustainable tourism. Sustainable tourism was understood to be pulling away from mass tourism.

2) The second position of a continuum. By the 1990s, the concept of polar opposites was generally rejected as unproductive, but the notion of a continuum between sustainable tourism and mass tourism presented a flexible adaptation of the earlier ideas. It recognized that sustainable tourism utilised the
infrastructure, transport and reservation systems of mass tourism, spawned an accompanying tourism industry structure and had the potential to develop into mass tourism if not properly managed.

However, two aforementioned concepts have had a lot of criticism. The idea of polar opposites representing ‘right’ and ‘wrong’ was denounced as ‘grossly misleading’. Most criticisms related to one or both of the following:
- Too simple: the inadequate appreciation of tourism as a dynamic and complex phenomenon resulting in the inherent flaws in this understanding of sustainable tourism.
- Too impractical: the question of scale and the inability of this narrow view of sustainable tourism to offer practical solutions to the global problem of the burgeoning volume of tourist arrivals.

3) The third position of movement
If the main problem of modern tourism is that of its huge number, then mass tourism was the most visible and sensible candidate for initial reform. Sustainable tourism as understood under movement differed from the earlier definitions of sustainable tourism on three key dimensions:
- The issue of scale became more objective and less emotive.
- Sustainable tourism became the goal for attainment, rather than the possession of an existing scale of tourism.
- Operationalising current knowledge to move towards the goal became the practical focus on effort, rather than the ‘is it or isn’t it sustainable tourism’ debate of previous years.

4) The fourth position of convergence
The framework culminates in a position of convergence. Perhaps this position represents the latest understanding of sustainable tourism as a goal that all tourism, regardless of scale, must strive to achieve. Accepting that the concept of sustainable tourism is still evolving, the absence of a precise goal definition is less important than general movement in the correct direction. Appreciating the wider role of sustainable development, this final position recognizes two interpretations of sustainable tourism. The large scale interpretation of sustainable tourism (as portrayed in position three) has a dominantly physical/ecological perspective expressed as a business orientation. The small scale interpretation of sustainable tourism offers a social slant from a local or destination platform. It is akin to the understanding of sustainable tourism as alternative tourism under position one, except for the crucial recognition of the concept as a goal rather than a possession.

The research made by Clarke provides a possible framework for the study definition of tourism. Therefore, within this thesis it was decided that the sustainable tourism is seen as a movement or set of dimensions. Since WTO is one of the biggest international organizations which deals with tourism industry, it would be reasonable to explore the term and dimensions proposed by WTO’s specialists for the study. This definition of sustainable tourism developed for the Guidelines for Local Authority provides a meaning of the term and a number of trends which should be achieved within sustainable tourism development [WTO, 2001]. “Sustainable tourism development meets the needs of present
tourists and host regions while protecting and enhancing opportunities for the future.” The development of sustainable tourism meets the following requirements:

• Tourist resources - natural, historical, cultural and others - are preserved in a way that allows them to be used in the future, whilst benefiting today’s society;
• The planning and management of tourist development are conducted in a way that avoids triggering serious ecological or socio-cultural problems in the region concerned;
• The overall quality of the environment in the tourist region is preserved and, if necessary, improved;
• The level of tourist satisfaction should be maintained to ensure that destinations continue to be attractive and retain their commercial potential; and
• Tourism should largely benefit all members of society.

The paradigm of “sustainable tourism” provides only general trends for tourism development, but how to measure impacts or improvements still remains a problem [Miller G., 2001]. A number of research papers which focus on indicator selection or comparisons for tourism sustainability scale were analyzed (Table 2)

<table>
<thead>
<tr>
<th>Area or group of indicators</th>
<th>Publications or studies</th>
</tr>
</thead>
</table>
| Sustainability              | HwanSuk C.C., Sirakaya E. Sustainability indicators for managing community tourism, 2005
  | Miller G. The development of indicators for sustainable tourism: results of a Delphi survey of tourism researchers, 2000
  | Tepelus C.M., Cordoba R.C. Recognition schemes in tourism from ‘eco’ to ‘sustainability’, 2002 |
| Ecological footprint / sustainability | Gossling S. et all. Ecological footprint analysis as a tool to assess tourism sustainability, 2002
  | Hunter C., Shaw J. The ecological footprint as a key indicator of sustainable tourism, 2005 |
| Economy                     | Damania R., Hatch J. Protecting Eden: markets or government? |
| Environment                 | Hughes G. Environmental indicators, 2002 |
| Society                     | Fredman P., Horsten L. Social Capacity and Visitor satisfaction in National Park Tourism, 2004 |

Table 2: Indicator review

The report ‘Tourism 2020 Vision: Global Forecasts and Profiles of Segments’ [WTO, 2001] was taken to look at the tourism as a interrelated open system. It assumes that factors influencing on tourism such as: economy, technology, facilitation, safety, demography, globalization and localization, socio-environmental awareness etc. will play a crucial role for tourism development. It also describes a number of the largest types of tourism regionally and at the global level and their interrelations. External factors which were provided within the ‘Tourism vision 2020’ are applicable during the analysis for Belarusian tourism in protected areas as well as to take into account possible future shifts at the world tourism market. As well as forecasts made by the WTO that can be useful for recommendations and discussion about relevant issues [WTO 2001, 2004, 2007].
Tourism in protected areas.

Among the aims of national parks and protected areas is to provide nature-based tourism and to promote ecological education [IUCN, 1998]. Therefore, it was decided to look into nature-based tourism as a popular definition for the tourism activity. Chronologically, one of the first scientists who focused on nature-based tourism was Ceballos-Lascuráin. His definition of ‘eco-tourism’ and recommendations for eco-tourism implementation was developed in 1983 still remains one of the most often used and can stay at the beginning of sustainable nature-based tourism concept. Since 1980 he has been evaluating possible environmental threats from tourism and has carried out a number of case studies for eco-tourism in Latin America. He proclaims the definition in the following way:

“Travelling to relatively undisturbed or uncontaminated natural areas with the specific objective of studying, admiring, and enjoying the scenery and its wild plants and animals, as well as any existing cultural manifestations (both past and present) found in these areas”. (1987)

However, since 1990 the conception of nature based sustainable tourism has become wider and all forms of tourism and its improvements have been included in the concept [Clark, 2000].

Furthermore, one important task of the study is to define crucial issues in tourism management practices, therefore literature sources that focused on management issues were included in the thesis conceptual phase. Some of the first research, “Tourism, Ecotourism and Protected Areas: The State of Nature-based Tourism Around the World and Guidelines for its Development” was carried out with Cambridge University support for IUCN in 1996 and presented a list of guidelines for optimization of nature based tourism [Eagles et all, 2002]. The book ‘Sustainable Tourism in Protected areas: Guidelines for Planning and Management’ [Eagles et all, 2002] deals with the complex definition of tourism and gives a deep insight of complex management aspects for the conceptual, data analysis and recommendation phases of the research. The main purpose of these Guidelines is to assist protected area managers and other stakeholders in the planning and management of protected areas, visitor recreation and the tourism industry, so that tourism can develop in a sustainable fashion, while respecting local conditions and local communities. A key message is the importance of managing resources and visitors today, so that tomorrow’s visitors can also experience quality sites, and the conservation values that these places represent [Eagles et all, 2002]. A certain number of protected area management frameworks are provided by the Guidelines as well as main principles for visitor management are declaimed. Authors embrace such aspects as:

- IUCN management category system, a short history of protected areas. This data was used for comparison between international and Belarusian park systems and for general recommendations.
- Trends affecting the planning of tourism and protected areas; growth and diversification of market niches. The information can be useful for the data analysis phase where factors influencing the tourism have been identified.
- Management descriptions which took place in the book [Eagles et all, 2002] were used for building the questionnaire and some model proposals have been included in the analytical part of the research (marked during the text). It includes several parts such as: park management plan and a role of tourism in the plan; cultural
and environmental sensitive design and operation for park management; management of risk and safety; management frameworks LAC, VIM, VERP, VAMP, ROS, TOMM (more detailed description of the given frameworks can be found in the chapter “Discussion on relevant topics”).

As can be seen from that point, tourism management embraced eco-tourism as a part of the system. However, it is not a finished partition, because all aforementioned definitions are modernized, probably, every year.

**Belarusian literature**

During the searching process of Belarusian research or studies concerning management practices the author discovered a lack of information. Two main reasons can be identified for such results:

- Since new market tourism industry began to work only from 1990’s there is not a large range of assessments concerning tourism within market conditions.
- Otherwise, the study has been limited within time and availability to get Belarusian literature (period of staying in Belarus was only from the 1st October to 9th November 2006).

However, a number of relatively complex research concerning tourism opportunities for the country were sought.

National parks and reserves are defined as the most significant territories for nature-based tourism [Yasoveev et all. 2004]. In the research a complex approach was used for evaluation of environmental factors for tourism development and challenges for nature based tourism were revealed.

A comparison study between world and national trends in nature-based tourism was made by Olga Mozgovaya in 2004. On the basis of international practice for development of international tourism the author tried to determine the role and place of ecological tourism in the relevant field in Belarus, to study the problematic issues of the ecological tourism development in the country. The main accent was made on the national parks destinations. The ecological tourism pattern has significant advantages over mass tourism and has no alternative in recreation zones of special registered territories [Mozgovaya, 2004]. This mostly concerns foreign tourism as the basis for regional prosperity growth and preserving the natural wealth.

Good practical background can be found in UNECE Environmental Performance Reviews: Belarus, second edition [UNECE, 2005]. It shows that definition of protected areas and its goals are not the same with IUCN classification. National park in Belarus is defined as mixing of different zones (1st, 2nd and 5th, accordingly to IUCN). Some recommendation given by UNECE can be used for this research.

**Part 4. Belarusian case**

This section gives a short overview of international and national Belarusian legislations and provides a national definition of ‘protected area’. Additionally trends in tourism industry based on latest recent years are described for Belarus.
4.1. National Belarus Protected areas system.

At the present time, the most popular and used definition is the one given by IUCN in 1994. Protected area is defined as:

“An area of land and/or sea especially dedicated to protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means”

Accordingly to the UN List of protected areas there are 102,102 categorized sites. They cover 18.8 million square kilometers and 17.7 million square kilometers are terrestrial. IUCN defined approximately 1300 types of protected areas and then developed all these types for 6 general categories. These categories are defined in detail in the Guidelines for Protected Areas Management Categories published by IUCN in 1994. They are as follows:

1 – Strict Nature Reserve/Wilderness Area
2 – National Park
3 – Natural Monument (conservation for special features)
4 – Habitat/Species Management Area (conservation through management intervention)
5 – Landscape/Seascape for conservation and recreation
6 – Ecosystem’s sustainable use

As for the Belarusian system, Belarus does not have the same categories given by IUCN due to historical and regional differences. Despite this a certain number of protected areas of Belarus are included indirectly in that classification.

Belarus system of protected area is provided in the national law “About protected areas” in 1994 (modified in 2000) [Laevskaya, 2005]. The law distinguishes four national categories:

1) Natural reserve. Land area is available for scientific research and environmental monitoring, limited recreation is possible. Other human activities are not permitted.
2) National park. Land area is for nature conservation, rehabilitation of disturbed ecosystems, and sustainable use of natural resources for conservation, eco-education, medical and recreational purposes.
3) Specific reserve area for conservation, reproduction or rehabilitation of one or several natural features. This area is available for only limited environmentally benign activities.
4) Natural monument is a unique natural subject with limited surrounding activities.

Protected areas cover 7.6% of the Belarusian territory as of 2004. The ministry of natural resources is planning to extend that type of land up to 9% by 2015 [UNECE, 2005].

Since the study took place basically on two protected areas in Belarus: one reserve and national park. It should be useful to described structures of those areas in accordance with the national environmental law.
Natural reserve’s have a similar structure with international classification. At the same time national parks have a number certain important differences that dictate the management of these areas. All of them are listed in the law. The main one is that the territory of a park is divided into four zones with a different range of available activities (table 3).

<table>
<thead>
<tr>
<th>Name of zone</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserved</td>
<td>Similar to natural reserve site, only scientific research and environmental monitoring is permitted</td>
</tr>
<tr>
<td>Regulated limited zone</td>
<td>Designed for scientific researches and reservation, however, a narrow list of operation is possible (cutting during forest diseases and to maintain the sanitary state of the ecosystem)</td>
</tr>
<tr>
<td>Recreational zone</td>
<td>Here recreational activities and tourism infrastructure are possible, taking into account nature reservation approach (minimum of impact)</td>
</tr>
<tr>
<td>Zone for maintenance management</td>
<td>This territory is designed for all buildings and infrastructure needed for maintenance management in national parks. It is included offices, roads, storage facilities and others.</td>
</tr>
</tbody>
</table>

Table 3: National Park’s Scheme of Differentiation  
Source: Лавская, 2005

Consequently the existing forms of nature conservation can be used effectively and gain a range of benefits for Belarus through biodiversity safety, tourism and recreational opportunities etc.

All national parks are owned by the President Administrative Department. However a wide range of state and private organizations are involved in the management process. Level of their influence depends on tasks and funding forces of these organizations.

4.2. Tourist variety in protected areas

Protected areas present a number of tourism opportunities for travelers and this is often the main reason for selecting a travel destination. For major European regions the areas are characterized as main ecotourism destinations with possible additional rural and cultural elements as well as scientific researches. According to Belarusian legislation, protected areas can also include such tourist activities as hunting and recreation without environmental impacts or with minimum impact. Finally, it is mandatory to underline that nature-based tourism is a primary and crucial for both Belarusian and European areas. Several travel journals and industry sources define ecotourism as the fastest growing segment of the travel industry. Travelers, like the general public, are becoming more sensitive to issues concerning the environment.

As the definition of ecotourism varies, so therefore does the estimated number of “ecotourists” worldwide. Based on the EcoTourism Society definition, it is estimated that around 30 million international travelers (or around five per cent of all international tourist arrivals) took an ecotourism trip in 1998. However, many ecotourism trips are domestic, and in the United States of America alone it is estimated that 20 million travelers took an ecotourism trip in 1998 [WTO, 2001].
Some estimation has been concerning nature-based tourism in national parks, it covers all arrivals to national parks, not only eco-tourism [Mozgovaya, 2004]. Belarusian situation with arrivals which took place in protected areas are presented in the table below.

<table>
<thead>
<tr>
<th>Name of protected area</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Amount of arrivals</td>
<td>Foreign visitors</td>
<td>Amount of arrivals</td>
</tr>
<tr>
<td>NP* “Belavezhskaya Pushcha”</td>
<td>45174</td>
<td>1193</td>
<td>55263</td>
</tr>
<tr>
<td>NP* “Narachansky”</td>
<td>13853</td>
<td>0</td>
<td>22739</td>
</tr>
<tr>
<td>NP* “Braslav Lakes”</td>
<td>4166</td>
<td>141</td>
<td>6434</td>
</tr>
<tr>
<td>NP* “Pripyatsky”</td>
<td>1495</td>
<td>65</td>
<td>2334</td>
</tr>
<tr>
<td>Berezinsky Reserve</td>
<td>21720</td>
<td>628</td>
<td>26241</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>86408</strong></td>
<td><strong>2027</strong></td>
<td><strong>113011</strong></td>
</tr>
</tbody>
</table>

Table 4: Dynamic of tourism arrivals in national parks and reserves

* - abbreviation of National Park (NP)

Table 4 represents main figures of the tourism development in Belarus. National parks and reserve were visited by more than 113 thousand visitors in 2002. For comparison: the same objects provided tourism services for just 23 thousand in 1994. An average duration of days per one visitor in hotels within protected areas increased from 2.8 in 2001 up to 3.8 days in 2002. Overall use-hotel indicators (amount of days for total amount of tourists) amounted 85 thousand days in 2002 or 120% to the previous years indicator.

There are a number of eco-tour proposals, the most visited place was in Berezinsky Biosphere Reserve. During 2001-2003 19 special eco-tours were carried out for foreign tourists from France, Great Britain, Switzerland and Belgium. These tours also include natural and cultural objects from Lithuania and Russia. Profitability of such tours for the reserve went up to 32% as well as a profit increased to 52.9% [Mozgovaya, 2004]

**Part 5. Questionnaire review**

**5.1. Description of study areas**

Within the study, two protected areas were selected: the Berezinsky Reserve and Belavezhskaya National Park. In order to define a more precise framework for analysis of these territories a geographical and economical overview before is needed. It is evident that realistic picture of tourism on the areas can not be made without local area’s features.

**5.1.1. The National Park “Belavezhskaya Puscha”**

The national park is located in south-west Belarus, on the border with central Poland, occupying parts of the Brest Region (see Fig 3).

Economical activities of local population depend on boundary’s trade and agricultural operations. The largest industrial centre of the province is Brest. However, it is far from the National park. So, it means that its influence is not so important for local population.
There are about 4000 people living within the Biosphere Reserve: 2500 within the transition area; and 1500 in the buffer zone.

**History and date of establishment and main events**
The area got the world fame due to European bison and large hunting. Pushcha forest has had limited hunting rights since the 14th Century. The first recorded part of legislation on the protection of the forest dates to 1538. The Russian Emperors were the last private owners of the forest after which the area was put under the jurisdiction of the state. Until 1991, Belavezhskaya Pushcha was a reserve hunting area where soviet communistic leaders took part in a wide range of game-shooting and fowling. Moreover, inscribed on the World Heritage List in 1992 and internationally recognized as a Biosphere Reserve under UNESCO’s Man and the Biosphere Program in 1993. From 1999 this area has got function as a national park with different number of scientific researches as well as industrial operations.

**5.1.2. Reserve “Berezinsky”**
The reserve is located in central part of Belarus, some 100 km north-east of Minsk on the edge of the watersheds between the Black and Baltic Sea (see Figure 3).
Economical activities of local population depend on agricultural operations. However, there is a few numbers of settlements near the reserve. As well agriculture activities are limited due to the water-logged ground. No one large industrial centre lies nearby the reserve. There are about 2200 people living within the Biosphere Reserve (2003).

**History and date of establishment and main events**

Berezinsky nature reserve was established January 30, 1925 to protect the remaining population of beaver as well as rare species of fauna, typical and unique nature ecosystems of the southern taiga. In 1951 the Berezinsky Reserve was liquidated. A republican game reserve was organized on its territory. The forests underwent intense exploitation. Substantial logging of grown trees resulted in decrease in quantity of game animals. The Berezinsky reserve was renewed in its former boundaries by the Decree of the Council of Ministers of BSSR issued May 5, 1958.

**5.2. Practical observations (data from questionnaires)**

The study methodology, obtained data for a complex analysis was divided into three main parts. The first concerns general features of protected areas and includes the following questions:

- sizes of territory (if recreational zone exists then note size of this territory) and statute
- local unique features (justification and rationale of these protected areas)
- stakeholders included in area’s activities and taking into account tourism
- sources of funding (including for tourism)
- technological level using for the area’s management (including for tourism), challenges forward, sustainability trends
- zoning aspects (incl. for tourism)
- environmental problems (incl. for tourism).

The second part focuses only on current tourism trends, tourism management and possible opportunity for tourism development as an alternative way of protected area’s management. The following aspects are shown within the second part:

- types of tourism
- information sources for visitors
- educational elements for visitors as well as for staff

Finally, the chapter including monitoring issues is provided. It covers certain aspects listed below: methods of monitoring, objectives of monitoring system, monitoring of arrivals.

**5.2.1. Part 1**

**1.1. Sizes of territory and statute**

<table>
<thead>
<tr>
<th>Name of protected area</th>
<th>IUCN category</th>
<th>Size of territory, ha</th>
<th>Size of recreational zone, ha</th>
</tr>
</thead>
</table>

21
Table 5: Size of territory and statute

<table>
<thead>
<tr>
<th></th>
<th>I</th>
<th>82,000</th>
<th>-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belavezhskaya Pushcha National Park</td>
<td>I, II and V* relatively to zone</td>
<td>166,700</td>
<td>7,500</td>
</tr>
</tbody>
</table>

*- Belavezhskaya Pushcha has a special zoning and, therefore, each zone has its own purposes which presents different category’s aspects accordingly IUCN selecting.

The above table can be useful to get an idea of how much management is needed for the function of protected areas as well as for tourism operations. Possible challenges for increasing or decreasing the amount of visitor numbers, types of operations are defined from the sizes of the reserve and the park (the recreational zone of the park is also given to put the visitor numbers into context) and from purposes of each zone within IUCN categorization.

It is better to apply for each area IUCN system in order to get a truer reflection of what area or a zone of area stands for with wilderness protection being not applicable.

1.2. Local unique features (justification and rationale of these protected areas)

<table>
<thead>
<tr>
<th>Element</th>
<th>Managing</th>
<th>Particularly managing</th>
<th>Observe</th>
<th>Particularly observing</th>
<th>No manage</th>
<th>No observe</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NP*</td>
<td>R</td>
<td>NP</td>
<td>R*</td>
<td>NP</td>
<td>R</td>
</tr>
<tr>
<td>Ecosystem</td>
<td>+</td>
<td></td>
<td>+</td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Fauna</td>
<td>+</td>
<td></td>
<td>+</td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Flora</td>
<td>+</td>
<td></td>
<td>+</td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Cultural heritage</td>
<td>+</td>
<td></td>
<td>+</td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Man-made objects</td>
<td>+</td>
<td></td>
<td>+</td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Produce and industry</td>
<td>+</td>
<td></td>
<td>+</td>
<td></td>
<td>+</td>
<td></td>
</tr>
</tbody>
</table>

Table 6: Local unique features

* - NP- abbreviation of Belavezhskaya Pushcha national Park
  - R – abbreviation of Berezinsky reserve

This question was aimed at getting an idea of what made the park distinct. With an increasing number of parks becoming established each day it is important that each is able to offer a distinct product (or a range of products that when combined make the area distinct) that will provide a unique visitor experience.

As can be seen, protected areas take some kind of role in managing and observing the local unique features. However, that the level of observing or managing is quite low, except natural features.

In the terms of truly unique features it is highlighted by the following factors - the areas species and habitats. The first reason for establishing of Berezinsky reserve was to save a population of beavers down the Berezina river; in the case with Belavezhskaya Pushcha it was to save and restore population of European bison which were almost disappeared after the 1st world war. The remaining factors included elements such as the areas landscape, scenic beauty, culture, geology, and range of activities on offer (i.e. walking, canoeing etc). Clearly, truly unique elements are rare, what is more important the combination of elements and the more elements on offer the better.
1.3. Stakeholders’ assessment included in area’s activities and taking into account tourism

1.3.1. Which stakeholders are included in protected area’s tourism activities?

It is useful to divide all stakeholders into three level groups per three property forms. The information is presented in the below tables (separately for each area):

Table 7-8: List of stakeholders: Belavezhskaya Pushcha National Park

<table>
<thead>
<tr>
<th>Level</th>
<th>Property forms</th>
<th>State</th>
<th>Private</th>
<th>Others (NGO etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>International</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>UNEP and its subdivisions, GEF, UNDP</td>
</tr>
<tr>
<td>National</td>
<td>President Administrative Department, Ministry of National Resources, Ministry of Sport and Tourism, Ministry of Agriculture</td>
<td></td>
<td>Tourism agencies, transport operators</td>
<td>Ecological organizations (“Ecohome”), Bel. Rep. Youth Union (BRSM), sport society “Dinamo”, Recreation department of the Federation of Professional Unions</td>
</tr>
<tr>
<td>Local</td>
<td>Park administration, District Administrative Council, District Tourism Department</td>
<td></td>
<td>Owners of ecological farmsteads, transport operators</td>
<td>Local population,</td>
</tr>
</tbody>
</table>

Berezinsky Reserve: List of Stakeholders

<table>
<thead>
<tr>
<th>Level</th>
<th>Property forms</th>
<th>State</th>
<th>Private</th>
<th>Others (NGO etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>International</td>
<td></td>
<td>Travel agencies: Great Glen Wildlife, Scotland;</td>
<td>UNEP and its subdivisions, GEF, UNDP</td>
<td></td>
</tr>
<tr>
<td>National</td>
<td>President Administrative Department, Ministry of National Resources, Ministry of Sport and Tourism, Ministry of Agriculture</td>
<td></td>
<td>More than 30 national tourism agencies; transport operators</td>
<td>Ecological organizations (“Ecohome”), Bel. Rep. Youth Union (BRSM), sport society “Dinamo”, Recreation department of the Federation of Professional Unions</td>
</tr>
<tr>
<td>Local</td>
<td>Reserve/park administration, District Administrative Council, District Tourism Department</td>
<td></td>
<td>Owners of ecotourism farmsteads and local handicraft-makers, transport operators</td>
<td>Local population,</td>
</tr>
</tbody>
</table>

As shown in the table 7-8 above a wide range of stakeholders are included in tourism. It is mandatory to underline that the type of property form and level for an organization can play crucial role in decision-making process.

1.3.2. Influence on decision-making process from aforementioned stakeholders

Since stakeholder issues embrace such a wide number of groups and involve a great amount of planning it is not mandatory to look at any real depth in the questionnaire. Rather it us the aim to better understand the level of support and influence the park has from a number of different stakeholders.
Stakeholders influence can vary during different projects or operations. Furthermore, it can be hard to understand the role of a stakeholder to make key decisions concerning a number of operations in the reserve and the park.

<table>
<thead>
<tr>
<th>Influence level for decision-making process</th>
<th>Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>President Administrative Department (maximum for all operations and projects); Reserve/park administration (all operations and projects, their practical implementation)</td>
</tr>
<tr>
<td>Low</td>
<td>Owners of ecofarmsteads and handicraft makers; International Organizations (has a high role only during some its projects)</td>
</tr>
<tr>
<td>Absence</td>
<td>Local population</td>
</tr>
</tbody>
</table>

Table 9: Influence level for decision-making process

It is mandatory to provide that both areas have approximately the same structure of stakeholders and, therefore, tourism activities might have similar problems within relations between stakeholders. But despite a wide range of stakeholders they are still remaining low influence factor because of the highest role of state limiting processes.

1.4. Source of funding for decision-making and maintenance operations within protected areas

1.4.1 Which sources are available? And is it enough for the administration and management?

Administrations of both areas have a number of funding sources. They can be divided into international and national (republic and local) sources, into temporally (project’s foundation) and regular (republic planning). Also sources of funding can aim to number of different results and be transited to different departments in the park or the reserve (tourism department, scientific-research department etc.)

In the below table the main important funding sources are listed and then a brief overview is given:

<table>
<thead>
<tr>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>High supply</td>
</tr>
<tr>
<td>Republic budget; Republic Fund of nature preservation</td>
</tr>
<tr>
<td>Enough supply only for certain projects</td>
</tr>
<tr>
<td>Republic Road Fund; Fund of reconstruction and Development</td>
</tr>
<tr>
<td>Scarce supply</td>
</tr>
<tr>
<td>Region Budget; District Budget; Ministry of Sport and Tourism; Own sources</td>
</tr>
</tbody>
</table>

Table 10: Funding sources

Republic budget for both national park and reserve is a main source of funding and more than 50% of all money that areas received from this budget. Here the role of project funding is not indicated because the information and available data is not prepared for analysis process. Moreover, the Republic Fund of nature preservation is also provided as a main foundation. It is mandatory to emphasize that an important source of funding is provided by a wide range of international organizations. However, sometimes, it is just temporally and results cover narrow sphere of travel industry products without well development region’s programmes.
1.5. Technological level (including tourism), challenges forward sustainability trends

1.5.1. Have you any ecolabel technologies in park, if so what is these?
A term “Ecolabel technology” within the context of the study is defined as a range of technologies (industry, services) that aims to recycle, to reuse and to predict wastes as well as try to sustain the local community, economical benefits and environment.

It should be noted that in the development management plans of both protected areas there are chapters focusing on environmentally benign actions. So, attempts to achieve certain level of sustainability are underlined in their programs.

The park and the reserve have some technologies which can be proposed as ecological or sustainable. Belavezhskaya Pushcha National Park have a heat station working on biofuel. Fuel for this station is derived from milling wastes (sawdust etc.). The analysis was carried out and it was considered that oil and gas consumption decreased at least 40%.

Moreover, sorting of glass, metal and food wastes are made in one hotel, the central museum and the restaurant. Berezinsky reserve is also developing a number of technologies for recycling. Most of the actions were developed with international and national projects. All district heating is based on the station working on biofuel (sawdust etc.).

1.5.2. Opinion about concept “predict-reuse-recycling”, have you any training for that conception
This question does not provide any scientific impartial view but we can evaluate opinion of managerial staff concerning possible new projects and challenges. Questions were asked to the head of the tourism departments in the park and reserve. Therefore, this subjective data might be useful for projections within future project’s implementation.

<table>
<thead>
<tr>
<th>Objects</th>
<th>Belavezhskaya Pushcha</th>
<th>Berezinsky</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Predict-reuse-recycling”</td>
<td>Positive opinion and already has some patterns</td>
<td>Positive without understanding of the concepts</td>
</tr>
</tbody>
</table>

Table 11: Concept “predict-reuse-recycling”

1.6 Zoning aspects

1.6.1. Is there any zoning system?
Berezinsky has not had a zoning system since 2000. But before this period the reserve had a spatial differentiation which was used in the USSR. Recent zoning procedures forbade any maintenance operations, therefore, only operations of IUCN I category are allowed inside the reserve.

Belavezhskaya Pushcha National Park has a well developed zoning system which includes 4 following zones: reserved, regulated limited zone, recreational zone, and zone for maintenance managing. Zones range from strict protection (reserved) to weaker protection (zone for maintenance managing).

1.6.2. Are any special zones for recreational area?
Both territories do not have any spatial differentiation for the above zone. However, a number of different activities within the area can limit other operations even without special zoning. For example, there is a range of certain conflicts between hunting recreation and eco-tours and etc.
1.6.3. *Can visitors define zones visually?*
No, they can not. Administration does not use any graphical or other signs because of the huge territory and the weakly developed transport infrastructure inside areas means there is little reason to define zones graphically. It is not available to get reserved zone for visitors without special maps and knowledge about local road’s features.

1.6.4. *Which factors are used for a zoning system?*
Belavezhskaya Pushcha National Park applies several indicators for zoning systems such as:

a) **Geo-Ecological:** for definition of key ecosystems and where they are located, as well as their biocapacity for making a list of possible operation there. This factor gives principal data for a system zoning. This factor represents and indicator which is used also for making projections of ecological changes for the whole region as well as for its parts.

b) **Economical:** it is based on the geo-ecological approach and provides economical calculations for economical rationale of operations. Within economical factors the indicators present the current situation of economical development of sub-areas and propose possible further challenges for such activities as tourism, natural based agriculture, and sustainable forestry. These indicators can be useful for development’s projections for the whole protected area and for its parts.

c) **Societal-Cultural:** it is used for more detailed schemes inside zones because cultural features of areas are not so crucial for the valuation.

d) **Political:** since Belavezhskaya is located directly in the transboundary zone (border between Poland and Belarus) this factor limits almost all operation in this zone. So, the border zone exists as I category even without account of other factors.

1.6.5. *Is a zoning system a solution for conflicts?*
Firstly, the zoning system of Belavezhskaya aims to achieve preservation of nature and to regulate resource users. It means that not all interests of stakeholders and visitors can be dominant (especially tourists). However, a number of zones (for maintenance managing, recreational) are included to achieve a wider range of interest. This zoning helps to solve the following conflict situations: between nature reserve and forestry, between nature reserve and tourism, between forestry and tourism, between reforestation and forestry, between agriculture operations and nature reserves, between tourism and agriculture use. In spite of these positives trends, a number of problems are decided with the dominant position of one stakeholders or more economical effective operation. This problem of conflict management is described more detailed in chapter…

1.6.6 *Have zones been changing within existing period of park/reserve?*
Yes, they have been.
Both areas have changed their own territories, as well as territories and purposes for zones. Moreover, Belavezhskaya Pushcha changed its status from “reserve” to “national park”. It is evident that such changes lead to different unpredictable impacts on the environments in the considering areas.

1.7. **Environmental problems (incl. tourism)**
Environmental problems were distinguished in the following way presented below.

Berezinsky

<table>
<thead>
<tr>
<th>Problem</th>
<th>Global</th>
<th>National</th>
<th>Neighborhood</th>
<th>Inside</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road “Minsk-Vitebsk”</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture and farm pollution</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hunting</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scarce grass</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 12: Environmental problems in Berezinsky

All these problems are identified due to the meteorological station and researches concerning herbivorous, bird migrations and migrations of amphibian.

a) “Road “Minsk-Vitebsk” is a main road which connects large regional centers. The problem appeared when the park covered extra areas with the road. The main problem was discovered to be the mass death of large number of herbivorous and bird offspring as well as being it impossible for amphibians to cross the road. Impacts of emissions (lead and other heavy metals) from road transport have not been discovered. During 2005 the road-construction division of Vitebsk region made a special tunnel for amphibian with length about 1.5 kilometer.

b) Farm pollution takes place once in four or five years and deals with surface water’s contamination. There are several live farms in the upstream of Berezina River.

c) Hunting. Due to low quantity of grass during winter period lots of herbivorous have to migrate to other territories away from the reserve. But round the reserve there are some hunting companies which do not provide their reports about their activities. So, volume of hunting is defined by private or other owners of the companies and amount of herbivorous can be vary significantly that threaten the ecosystem’s stability.

d) There is a scarce grass problem in the reserve. Due to long periods of reservation process and overcrowding of animals, the depletion of food during winter period takes place in the whole reserve’s territory.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Urgently</th>
<th>In future</th>
<th>not expect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road “Minsk-Vitebsk”</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farm pollution</td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Hunting</td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Scarce grasses</td>
<td></td>
<td>+</td>
<td></td>
</tr>
</tbody>
</table>

Table 13: Environmental problems in Berezinsky (time projective)

Belavezhskaya pushcha national park

<table>
<thead>
<tr>
<th>Problem</th>
<th>Global</th>
<th>National</th>
<th>Neighborhood</th>
<th>Inside</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO2 emissions in top of trees</td>
<td>+</td>
<td>(European extent)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall in level of ground water</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shrinkage of fir and spruce</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overcrowding and</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
overgrazing
Expansion of bark beetles
Introduced animals

Table 14: Environmental problems in Belavezhskaya Pushcha

a) SO2 emissions is a wide spread problem. So, the main reason of SO2 contamination for the national park is industry in western and central Europe.
b) Fall in ground water level is the main urgent environmental problem in the park, and is caused by external factors agricultural activities which began in 50ies last century and melioration of lands round the park lead to the problem of the level of ground water.
c) Shrinkage of fir and spruce spreads throughout the whole park. The main reasons for the problem is decreased level of ground water and, perhaps, hot summers which caused by higher temperature regime.
d) Population of animals, in particular herbivorous. Also, lots of animals from surrounding lands come over to the area; therefore overcrowding and overgrazing areas emerge in the park.
e) Due to hot dry summers and shrinkage of forest expansion of bark has occurred to a non-usual large extent.
f) Introduced animals (American mink, raccoon dog) inhabit areas where indigenous kinds had occupied before, but had to leave these territories. Therefore, forced migrations can break ecosystem balance and biodiversity.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Urgently</th>
<th>In future</th>
<th>not expect</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO2 emissions</td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Fall in level of ground water</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shrinkage of fir and spruce</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overcrowding and overgrazing</td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Expansion of bark beetles</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduced animals</td>
<td></td>
<td>+</td>
<td></td>
</tr>
</tbody>
</table>

Table 15: Environmental problems in Belavezhskaya Pushcha (time projective)

5.2.2. Part 2.

2.1. Have you any tourism plan?
Both study areas have tourism plans where a list of needed actions with budgets and organizations who are in charge of the action are provided. These plans cover period 2007-2009.

2.2. Can be proposed what tourists want or park wants?
The reserve has a number of strict rules which it has to follow because the level of reservation is maximal. In the national park there is a number of certain tourism activities which is considered as main development dimensions. Tourists in the national park have a choice however information about non-popular or non-prioritized kinds of tourism is scarce.
Consequently, it is hard to change tourism activities on the areas due to strict rules of the protected areas and national documents. The tourists’ proposals and wishes are not the first factor influencing on the variety of recreations.

2.3. **Park efforts toward different types of tourism (focus priority)**

For Berezinsky Reserve

<table>
<thead>
<tr>
<th>Type of tourism</th>
<th>Strong</th>
<th>Average</th>
<th>Weak</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wilderness visits</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature based visits</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recreational: holidays and adventure based experience</td>
<td></td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ecological education, including child oriented experience</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sport nature-based tourism, active experience</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hand craft and ethnological tourism</td>
<td></td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hunting</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural and agritourism</td>
<td></td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural/historical experience</td>
<td></td>
<td></td>
<td></td>
<td>+</td>
</tr>
</tbody>
</table>

For Belavezhskaya Pushcha:

<table>
<thead>
<tr>
<th>Type of tourism</th>
<th>Strong</th>
<th>Average</th>
<th>Weak</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wilderness visits</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature based visits</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recreational: holiday and adventure based experience</td>
<td></td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ecological education, including child oriented experience</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sport nature-based tourism, active experience</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hand craft and ethnological tourism</td>
<td></td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hunting</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural and agritourism</td>
<td></td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural/historical experience</td>
<td></td>
<td></td>
<td></td>
<td>+</td>
</tr>
</tbody>
</table>

Table 16-17: Types of tourism (focus priority)

In the tables 16-17 only the largest tourism operations are provided, yet each of these categories is a complex including several sub-types. More description of these types is presented in the next question. All tourism operations related to services for foreigners have bigger attention of the administrations.

2.4. **Which of these types managing by park organization? By local owners? By private sector stakeholders?**

Almost all of the tourism industry is run by the park and reserve administrations. Therefore, state stakeholders are the main owners of tourism. Below is a list of activities which are owned to private sectors or there is a combination park bodies and private stakeholders:

1) Guided walking trips – combination of park body and stakeholders
2) Guided nature trips (i.e. animal watching, plant identification) – combination
3) School/ college/ university based trips – park body
4) Festival trips – combination
5) Rural/ agriculture trips – private sector
6) Hunting – particularly private in the Berezinsky reserve

2.5. Information for tourists

2.5.1. What type of information could tourists get before, during and after visit
Berezinsky and Belavezhskaya Pushcha have the same structure and process of information for visitors. It is showed in the table below:

<table>
<thead>
<tr>
<th>Information</th>
<th>Before</th>
<th>During</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web-site</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Particularized tourism exhibitions</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Printed pamphlets, fly cards</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Stands with information</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guide information</td>
<td>+</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 18: Information for tourists

2.6. Education

2.6.1. have you educational elements for tourists

<table>
<thead>
<tr>
<th>Object for education</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fauna of the protected area</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Flora of the protected area</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Ecological relations</td>
<td>+1</td>
<td></td>
</tr>
<tr>
<td>Ecological problems</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Local community features</td>
<td>+2</td>
<td></td>
</tr>
<tr>
<td>Relations “human – nature”</td>
<td>+</td>
<td></td>
</tr>
</tbody>
</table>

Table 19: Education

1 – ecological relations are showed particularly during the eco-tours by guides. However, these excursion do not have a big part in tourism in the whole.
2 – local community features can be presented within agritourism farms recreation.

2.6.1. have you any training programs for staff? If so, how often and which?
Different training programs take place in the reserve and park. It covers mostly spheres concerning reservation procedures, eco-tourism development and others. Furthermore, lots of new training programs are added every year if it is useful for management. The most often training course are for rangers and head managers.

5.2.3. Part 3

3.1. Methods of monitoring and its objectivity (incl. for tourism)
Monitoring systems within both areas are mainly centered around environmental objects. Such type of control makes it possible to estimate current trends in changing ecosystems and also consider the environment from a health care point of view. There are no specific social and economical monitoring actions in the reserve and park, particularly, concerning tourism impacts. However, arrivals of visitors are undertaken regularly by the different departments and stakeholders.
Individuals who are involved
Scientific departments of the park and reserve are in charge of main monitoring operations. Moreover, the reserve gathers information from the meteorological stations located inside the park. There are projects financed by international and national environmental organizations and taken place in protected areas and can be presented as a special temporal type of monitoring. But they have only particulate information and can lead to wrong definition of problems without data from stationary observations. The Tourist department calculates numbers which related to arrivals of travelers and their activities, so, therefore, the data can be useful for other departments.

Environmental monitoring
Belavezhskaya Pushčha monitoring system:
Stationary monitor operations:
There is a laboratory situated near the park headquarters at Kamieniuki, as well as several field stations for ecological, hydrological and climatological monitoring. Ongoing research includes natural ecosystems and their restoration, natural succession, forest management, agricultural research, and floral and faunal surveys.
Temporally project monitoring:
Research is also planned for the social sciences, in particular ethnobiology, cultural anthropology, rural technology and traditional land-use systems. A project financed under the Global Environment Facility (GEF) has recently been approved.
Berezinsky
Berezinsky reserve has well developed systems of environmental monitoring, it has a wide range of estimations relate to environment. Within the reserve’s area monitoring of air, surface water is undertaken. Moreover, a monitoring station in the reserve ais included in the international network. So, it means that the data obtained from the station is a high response scientific level. Monitoring of air measures emissions of sulphur dioxide, sulphates, nitrogen dioxide, particular matter, lead, cadmium and ozone. Water monitoring is also preparing with a high range of parameters: oxygen, CO2, acidity, odour. Researchers also take a sample for the republic center. Research of the ecotourism price making policy took place in the reserve during 1996-97

3.2. Monitoring of arrivals

3.2.1. Did you measure the annual and seasonal number of visitors?
Yes, they did. The amount of visitors is calculated every month. The indicator of arrivals shows trends of total number of visitors in the both areas. For Berezinsky reserve data is available for the period from 2001 to 2003; for the national park it is wider. More detailed information can be taken from the tables 19-20 below:

<table>
<thead>
<tr>
<th>Berezinsky</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td>2001</td>
<td>2002</td>
<td>2003</td>
</tr>
<tr>
<td>Total number of arrivals</td>
<td>26241</td>
<td>23726</td>
<td>22901</td>
</tr>
<tr>
<td>Including foreigners</td>
<td>719</td>
<td>497</td>
<td>657</td>
</tr>
<tr>
<td>Visitors used the hotel (more than one day)</td>
<td>6377</td>
<td>5127</td>
<td>3842</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Hunting tourism applications</td>
<td>n.a.</td>
<td>n.a.</td>
<td>123</td>
</tr>
</tbody>
</table>

**Belavezhskaya Pushcha**

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of arrivals, thousand</td>
<td>46,2</td>
<td>45,2</td>
<td>55,3</td>
<td>56,1</td>
<td>62,1</td>
<td>140,0</td>
<td>180,1</td>
</tr>
<tr>
<td>Visitors used the hotel (more than one day)</td>
<td>7125</td>
<td>7138</td>
<td>7165</td>
<td>6288</td>
<td>4820</td>
<td>4000</td>
<td>6427</td>
</tr>
</tbody>
</table>

Table 19-20: Number of arrivals

3.2.2. Have you problems with crowding relating to whole territory? to recreational zone? to sub-areas of recreational zone?
Berezinsky reserve does not have these problems.
In the national park there is a problem with crowding in the south part where administrative and tourist center is located. This territory lies in the south recreational sub-region.

3.2.3. Have you any problems with overcrowding during the whole year? only certain seasons?
Berezinsky reserve does not have the problem.
There is problem with overcrowding during summer and Christmas vacations.

3.2.4. How can you describe a general approach for monitoring with sustainable elements?

<table>
<thead>
<tr>
<th></th>
<th>Necessary</th>
<th>We wish</th>
<th>Not necessary</th>
<th>Not yet</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>National park</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reserve</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 21: Approach with sustainable elements

The table 21 above shows that the staff and administration is ready to implement complex types of monitoring onsite. Monitoring system with different objects (social, economic) are important for park and reserve. But it still implemented only through temporal scientific expeditions’ projects.

3.2.5. Accordance with what visitors want
This is very much a capacity to manage question. If a park does not have the necessary information on what visitors want then it becomes literally impossible to successfully meet visitor needs.
Usually, visitor opinions are not included in monitoring tasks. However, results from monitoring concerning influence on human health or dangerous tendency are provided for making tourist development plans. It is often concerning migration of herbivorous, predators.
3.2.6. Do you provide questionnaires to investigate desires of tourists? What the way: automatically.. entrance.. particularly

Staff provides questionnaires to investigate desires of tourists only sometimes. This is mainly done with groups of foreigners and tourists that spend a more than average money sum. See the example of the questionnaires in Appendix 2.

Part 6. Data analysis

In this chapter, data only relating to tourism activities was analyzed. It is evident that there are a wide number of factors related to tourism experience directly and indirectly. The structure of such analysis is shown as complex of activities at different levels (figure 4). Such an approach tries to cooperate with main principles of sustainability.

Figure 4: Tourism development in protected areas

Monitoring issues are taken separately and shown not only in the form of the part of the tourism activity but also in the form of the special independent tool which has an influence on tourism development.

6.1. External factors

This section includes several objects at different levels, both national and international. These levels were chosen due to the main development aims for tourism within Belarus. It is expected that international arrivals will increase and with the bulk of these foreign consumers coming from the European Union and CIS (commonwealth of independent states). Factors are presented within WTO frameworks and provide further projections and evaluations:
a) **Economy.** Economic recovery leading to a rising personal incomes and free time availability – the fundamentals to engage in tourism, i.e. time and money. After 1991, Belarus among other neighboring post-soviet republics, experienced a dramatic drop in industrial production and personal income, hence the number of arrivals into Belarus declined. See example with Belavezhskaya Pushcha, figure 8. Since 1996 personal incomes, especially within the CIS, were beginning to show signs of improvement. For the European Union (probably, this is the biggest foreign consumer of Belarusian tourism) growth of GDP is expected to rise in the order of 2 to 3.5%, per annum, whilst in CIS the growth is expected even more [UNSTAT, 2005]. Consequently, economic factors will thus remain positive one for tourism in Belarus.

b) **Technology.** The level of technology in Belarus remains at a lower level than in European Union. This research only focused on technologies used within the tourism industry. Almost all tourism agencies in Belarus do not use modern information technology (internet booking for tickets and accommodation were implemented only for few number of companies). Large investments are needed to implement technological advances to affect the field of transport technology. During this study no evidence was found in relation to the improvement of the transport system within Belarus. However, transport is the most environmentally crucial factor [Gössling, 2000].

c) **Demography.** There will be a continuation of the trend of ageing populations in the EU member countries, CIS and Belarus. Furthermore, in Belarus total population is decreasing. Forecasts made by UN STAT outlined that population will decrease 8.3 [UNSTAT, 2005]. The implication of this scenario is continued growth in tourism by older market segments. Another demographic trend is the further erosion of the traditional household through rising divorce rates and second marriages with children. In Belarus there is a narrow range of accommodations for different types of family structures.

d) **Socio-Environmental Awareness.** After the impacts achieved in the 80s and to the Rio Summit of 1992, environmental issues within Belarus were not high on the agenda, due to issues arising form the breakup of the Soviet Union, however these issues have again become the forefront of international debate. This awareness will be further increased by media coverage of major problems such as rainforests deforestation, pollution, global warming, coral reef bleaching and the dwindling worldwide water supplies, resulting in a proportion of the world’s population living under stressed conditions. These reports in the media are likely to lead to increased scrutiny on the part of the public in destination decision making processes.

e) **National environmental legislation.** Many aspects that define economical and environmental activities in protected areas are controlled by this legislation. According to the law there are a number of strict rules that permit and forbid certain types activities, including tourism operations, within protected areas. Furthermore, there are a list of operations which are forbidden or limited for private and foreign stakeholders. This causes a reduction in the private initiatives undertaken within national parks. The lack of experience in the area of tourism policy making is evident, hence a lot of tourism destinations have had to adapt to the current legislations, or face no tourism whatsoever. For example, services, technological and managerial standards have yet to adopted the perspective of developing environmentally benign tourism destinations for eco- and
agritourism. The first law in relation to rural tourism was only developed during 2004-2005.

f) Visa applications and staying of foreigners in Belarus
Frontier Formality Withdrawal can be characterized as follow:
- CIS members (former soviet republics, except Lithuania, Latvia and Estonia) do not need a visa to visit countries within the CIS. This is a positive factor to increase visitor arrivals from these countries. However tourism from the post-soviet region is somewhat limited by the economic circumstances of members form these regions.
- European Union and other well-developed countries are appeared to be the biggest consumers in the tourism service market in Belarus, however visa costs are significant. The cheapest Belarusian visa is for European Union residents at approximately 600 SEK, and increases for citizens of other countries. Furthermore, it is impossible to stay in Belarus without a special registration longer than three days. This makes Belarus an unattractive tourism destination for non CIS members.

Such rules and costs have a direct negative influence on the volume of arrivals from the more affluent regions, such as the European Union. There is a special regime to visit Belavezhskaya Pushcha because of the special border zone, this creates an additional barrier to attract foreign tourist into the park.

6.2. Park/reserve management issues
The section “Protected area management” provides a review of the current situation within the study areas and is based on the information from questionnaires (the first part). The analysis is made with accent on conditions and issues related tourism activity.

Size of territory
The above information was essentially used to get a general view of how much of an issue the management of ‘visitor experience’ is in each protected area, this involved looking at the IUCN category of the protected area and their size.

Both protected areas have areas for recreational operations, however, due to strict rules, such areas do not cover all territories of areas. Recreational zones are not enough: in the National Park – 7,500 ha; in the Reserve – small zones defined by the reserve’s administration. So, there is an additional potential for developing tourism with careful management focused on environmental issues as a priority.
As can be seen, National Park “Belavezhskaya Pushcha” is not defined as the II category accordingly IUCN. A far better approach would be to apply the IUCN categorisation system, basing the title of the park on the objectives of the area. This would give a far truer reflection of what the area stands for. The park calls itself National Park, thus giving the impression that they are IUCN category II, and as such confusing the general public.

**Stakeholders and funding**

Within the setting of a protected area the actual management body of the park in most cases has very large influence over how the area is managed and portrayed. In the park and reserve, services (accommodations, eateries, transport providers) and landowners (agriculture, forestry) are largely under the control of state individuals or included in the park/reserve bodies. Service providers have obvious implications for the visitor experience, but landowners also have an impact, for instance a traditionally managed farm contributing a great deal to the attractiveness of the landscape. It is also worth remembering that there are individuals outside of the park that will have an impact on how the area is portrayed such as media providers.

Here only stakeholders which deal with tourism activity are presented. Moreover, there are a wide number of stakeholders which play an important role additionally and indirectly, For example, forestry industry stakeholders in the National Park.

The protected area does not involve as many stakeholders as is possible in the management of the area. It is wrong to say accounting considered areas where possible partnerships should be formed whereby there are clear benefits for both parties. In spite of a wide range of stakeholders: international organizations, tour operators, national and local administration; there still remains a lack of stakeholders from the
private sector (see table 7-9, and appendix 3). In appendix 3 the state tourism management scheme can be found. As can be seen, almost all tourism services are provided by the state. The private sector can not develop successfully because of the current legislation and absence of experience. There are too few educational courses for tourism and business management for the private sector to gain a greater stake in this market. Taking into account the lack of private stakeholders it is apparent that the state sector including local and national government has a large influence on decision making (see table 9). Such situation, perhaps, leads to non-objective decision-making. Also one of the key principles in sustainable tourism is an involvement of local community in operations, yet both protected areas propose only employment without taking into account their interests. Support from stakeholders is best achieved when they are fully involved in the planning process and are clearly made aware of what the park wants to achieve for the area over the long term. The idea of sustainable tourism must be sold to the various stakeholders with them being educated to how it is in their best long-term interests. They not only have to feel part of the process but become a part of the process. Unfortunately, the main funding source is the state (see table 10), which is due to the passive roles of private business, local community and absence of wishes from the administration to develop these sectors. The desirable form of relations between stakeholders during park planning can be provided within the figure 6 below:

![Diagram](image)

**Figure 6**
*Source: Eagles et al 2002*

**Technology**
As can be seen from the questionnaire, technological improvements concerning reduction of oil and other fossil fuels take place in both areas. In Belavezhskaya Pushcha oil consumption reduced more than 40% due to use of wastes from forestry, also Berezinsky reserve does not use oil for heating in the whole. Furthermore, administration of the national park has made first efforts to separate garbage. However, separation of the
garbage does not have a large extent due to low level of consumption inside in the areas. The large number of arrivals with an educational character, i.e. pupils and students, does not contribute the economical benefits as would the same number of arrivals from European Union Countries. According to the questionnaires, both park administrations wish to improve their technological level, however they focus only on general technological, principles that are too wide and non-specific. Therefore, they do not have their own interest or do not have enough of experience to popularize eco-label technology, and to search for funding of such kinds of technological implementations. WTO assumes that one the main factors for tourism sustainability is wide range of technological improvements in communication, information and transport technologies. Both protected areas have internet web-sites, as well as TV- advertisements. Tourism departments take part in national and international exhibitions. But there is still a low level of experience, particularly at the international level, due to lack of money spent on these actions. Only one part of research was carried out concerning the possible developments in market proposals relative to changes in tours and their conditions. [Berezisinsky reserve documentation, 2006]. Such sort of research did not get any further support from park administration. No one assessment has been made about possible development of transportation or transport impacts. At the same time this is one of the greatest environmentally detrimental problems within tourism. A large amount of research proved that transport is the greatest contributory factor affecting the environment [Gössling, 2000]. From meetings with heads of tourism departments it became obviously that technology is defined only as technical improvements. Therefore, service and management is not object for the management of the park and the reserve.

**Zoning**

Zoning is a key management tool for protected area management in general (i.e. dividing resource use, or areas requiring different levels of protection) and for specific management of the visitor experience (i.e. separating areas according to visitor experiences so to avoid conflict between different visitor groups). The protected areas in the study use some form of zoning system. In the reserve, zoning was abolished as of the year 2000, this means that the whole area is included in the strict reservation. The main reasoning for the zoning system in the national park is to ease conflict between resource users. This was closely followed by easing conflict between resource users. The main principles and descriptions of zones are presented before in the chapter 5.2.1. Additionally, carrying capacity was not chosen as an indicator for zoning. Even after new zoning in 2000 in the reserve some management operations (landfilling and etc.) are still being maintained within the old zoning. It shows that new zoning was carried out with poor assessments. In the Belavezhskaya Puscha National Park there are still certain problems between forestry and reservation procedures (see figure 7). Moreover, zones for eco-tours and hunting tours are overlapping. This makes harder to develop eco-tourism destinations within areas.
Environmental problems
Tourism in protected areas is nature-based. Therefore, the evaluation and solution of environmental problems is seen as the most important problem for this kind of tourism development. Unfortunately, both areas have a number of environmental problems. The list of them can be found in the chapter 5.2.1. According to the official reports; no single problem is a result of tourism activities, however, no evaluation of tourism impacts upon the environment has been conducted. Therefore, this assumption may well be incorrect. Furthermore, it was identified from the questionnaires that hunting influences greatly on herbivores welfare. It outlined possible relations between tourism and one of the park’s environmental problems.
Problems have an extent on the local scale as well as regional levels. Solutions for almost all of the problems require cooperation between different departments in the parks’ management as well as externally, with neighboring stakeholders.

6.3. Tourism activity
At the beginning of the tourism review it is reasonable to focus on how many arrivals take place in the region, this can give an indication on the number of resources needed to manage tourism. Data obtained is not complete for the time period, nevertheless it is possible to draw some conclusions from the data. A number of arrivals decreased during the dissolution of USSR and immediate years after (see figure 8). It is likely, such a decrease in numbers led to the destruction of the previous tourism infrastructure and a change of tourism destinations for arrivals. Conversely, a decrease could have also been influenced by aforementioned events (too old infrastructure and lack of tourism proposals).
Secondly, an analysis of benefits is provided. The main problem of tourism activities in the protected areas is disproportionate income distribution from different operations. For instance, tourism is a significant part of the economy of the reserve body (see figures 9-10). Profitability of tourism is two times more than the average profitability in the reserve. However, there is no clear plans how to spent these money for tourism and benefits are not distributed in accordance with these shares. The main outputs are used for the current problems which are only defined by administrations. Furthermore, economic evaluation of urgent problems is scarce, and often unreliable when available. As a result, administrations tend to undervalue the benefits derived, and therefore do not provide the funds needed to maximize the flow of benefits.

Since administration is spending this money not only for tourism development, tourism does not get enough money for renovation and development of technologies and etc.

![Diagram: Total number of arrivals](image)

Figure 8: Tourism arrivals
*source: based on the questionnaires (see chapter 5.2.1.)*

![Figure 9: Diagram. Shares of production volumes in Berezinsky Reserve (%)](image)
There is also a problem of the absence of systematic economical evaluations of different activities within, particularly, the national park. Zoning principles allow the continuation of different operations, among them forestry and agriculture, this makes harder to compare benefits from tourism and other operations without systematic gathering of economic data.

Management of tourism in the study areas has been discovered and provided (appendix 3). Tourism has following regional problems that are not typical for usual European visitor experience:
- lack of infrastructure for nature-based active and adventure tourism. Hence, the only available tourism for arrivals includes; educational excursions, hunting, visiting hotels and zoos. The main reason for this lack of tourism infrastructure is the previous law, the law forbade staying in territories of protected areas without special permission. Conversely this makes it possible to limit environmental impacts from visitors or localize them.

It is positive that access to protected areas is a human right and each of the areas has a development plan for tourism and therefore optimization of that access [National law, 2002].

The question is also of interest to a parks capacity to manage as it would be expected that with tourism being enshrined in law, governments would provide the necessary funds, resources, support etc in order for the park to meet the aims of such laws. However, no one study area can have a strong customer orientation, the primary aim is to conserve wilderness. Within the setting of a protected area this can be of benefit, however in order to be more successful in satisfying visitor experiences the park should to a certain extent try to accommodate the needs of the visitor. Clearly the key here is finding the balance between satisfying visitor wants and ensuring no adverse impact on the areas environment, socio-culture or economy.

The number of various visitor experiences has various levels of focus, with the educational experiences and hunting having the strongest focus and handcraft and rural tourism the weakest. Nature-based experiences, hunting, child-oriented experiences, and wilderness experiences also have a strong focused. There would also seem to be a clear division between what could be considered more traditional tourism experiences (i.e. holiday experience, activities based experience, adventure based experience) receiving lower levels of focus and what one would expect to find within a protected area with education, nature and cultural experiences having the main focus. From interviews, ecotourism is seen by management staff as a priority, however ecotourism’s biggest problem in Belarus is labeling: going on an ecotour is no guarantee of good ecology. Comparing
with other countries, Australia is the only country that has an accreditation system to rate tour operators and resorts on the basis of their ‘greenness’ [WTO, 2001]. Therefore, it is necessary for the individual traveler to undertake their own research to discover which ecotour operator most suits their needs, has the least impact on the local community and natural resources. Many operators have codes of ethics, and several organizations or bodies have drawn up check list of questions to consider when choosing ecotourism.

Figure 11: Hotel “Plavno”. Restaurant hall (example of state stakeholders in Berezinsky Reserve)
*Source: http://altzdrav.ru/plavno.html*

The overriding point from the table 9 is that state stakeholders play a major role in providing the various activities/services and as such in contributing to the overall visitor experience. However, without competition and alternatives from different stakeholders, prices and quality of tourism services is seen as non-changing, and lacks the relationship with the various market conditions, this can be presented as a negative factor.

**Information for visitors**

In the study, the information for visitors is divided into three groups:

- **Before visit.** Such information relates to potential visitors, with the Internet being the most common tool and relatively low usage of television advertisements, mainly due to costs. One has to be careful in looking at such results however as a certain amount of media coverage is conducted independently from the park. Presentations about tourism in the areas take place at different exhibitions, however a lack of experience in advertisement activity gains low benefits. Moreover, in the assessment it was not considered how often TV and other media resources have been used. It shows that such information can be rarely presented for potential visitors.
- **During visits** tourists receive paper information (i.e. pamphlets, fly cards), as well as large number of information stands that enables them to gain a greater knowledge about the local unique flora and fauna. Unfortunately, phone (audio) information is not included in the development plans until 2009.

- **After visit.** Visitors can get information after eco-tours and other excursion with the similar paper information packet (information pamphlets, fly cards).

In spite of the fact that the information on the web-sites and a small amount of other information is in English, Russian, and Belarusian, the main sources of information are only available in Russian and Belarusian (there is a problem with the translation information in English, French, German, and Spanish languages.)

**Educational aspects in tourism**

![Nature museum in Belavezhskaya Puscha National Park](image)

Educational elements receive a relatively high level of focus for parks’ administrations. Flora and fauna, ecosystem’s relation issues relevant to the local area, and the role of the visitor receives the strongest focus. Another important point is that the parks seem to give a relatively focus to educating the public about the parks management, such as where funding is allocated, what are the main concerns to the park etc. Furthermore, environmental problems caused by anthropogenic activity are not showed during excursions, there is no information regarding the sustainable consumption of natural resources.

**Education for park staff**
As can be seen from questionnaires, most courses are for rangers and head managers. However, the training is focused on park management and, very rarely any problems related to tourism. There is a number of training courses with an international connection: the most common and often in the reserve – connects with French national park; in the national park – connections are with the polish national park “Byalovezha”. However, there is a problem with the educational level of staff, almost all personal do not speak any foreign language as well as their possibility to study with internet technologies.

6.4. Monitoring model

In the case with the Belarusian park and reserve there is no monitoring of visitor impacts and service quality. The following reasons of the absence have been distinguished during the study:
- In the administration’s opinion, the current extent of tourism activity is not seen to be large enough to measure the impacts. The popular and busiest visitor’s experiences are educational excursions, eco-tours and hunting. All these activities take place with special guides and their impacts can be limited.
- Lack of experience, staff and money for monitoring.

From the field research of the study area the following features of monitoring can be defined:
- Unfortunately, there are no special monitoring operations except monitoring of arrivals in the Belavezhskaya Pushcha and Berezinsky which concern tourism activity.
- Park and reserve monitoring can be particularly applied for tourism development and planning. These are environmental observations concerning animal and bird migrations and their volume for eco-tourism and hunting. Assessments of biodiversity and unique features within areas are taken into account during eco-track building.
- Park and reserve monitoring does not include any economical or social indicators that can be useful for tourism analysis, even indirectly.


Recommendations

Since the research principles of this thesis support a sustainable approach it is more applicable to use a broad view in the decision-making processes. However, the wish to make complex recommendation can lead to the loss of detailed urgent problems. Therefore, it was decided to define directions of developments which are seen as actual problems. Also, it would be useful to range recommendations and problems and to focus on priority choice while decision making.

One of the main problems for making ranking is the subjectivity of the author, in spite of this, the following conditions were proposed to make priorities of recommendations. Since park and reserve administrations have problems with stakeholder investment (except republic budget for certain projects), as well as with private stakeholders’
cooperation one of the main factors for carrying out the recommendations is its own availability of resources. But at the beginning the availability of its own resources is seen as significant criteria. Moreover, all improvements of the possibility to do recommendations are also the first priority. This way, the first recommendation is to find external resources and assess its own potential to do recommendations listed below.

The following principles were used during recommendation process:
- recommendations are based on current problems of protected areas (see the “Tourism system” and “Monitoring issues”, chapter 6.3-6.4) it also takes into account future changes within the tourist market and external reasons such as economy, demography and so forth (see part “External factors”, chapter. 6.1).
- recommendations are focused on all stakeholders;
- recommendations should be carried out with priority ranging listed above

Directions of development:
**General improvements** are provided for external factors. The head of the park and reserve can provide the recommendations, during national forums, conferences with local and republic government, state and private stakeholders.

It includes help in developing legislation concerning private property and private business nearly and inside of protected areas and ecotourism legislation. It would also be useful to lobby government to make easier border withdrawals and decrease the cost of visas for EU residents for tourism purposes. It is important to make the scheme of staying in the national park Belavezhskaya Pushcha located in border zone easier for the benefit of tourism.

**Management planning** is a crucial factor that defines interrelations between different activities within park and reserve. Plans of development which take redistribution of revenues from tourism to tourism infrastructure and complex management approach into account will help to ensure cooperation of different activities within parks and to increase investments for tourism sector.

**Environmental aspects** affect the nature-based tourism and play the most important role to limit or develop tourism operations in the park and reserve. Each year these aspects will only become more significant due to growing anthropogenic environmental pressure. Since the market role is becoming more important in Belarusian tourism system partial implementation of economical evaluations is desirable to describe the rationale of environmental problems. Tourism development should include the forecasting of environment situations/problems in future, as well as current environmental problems that should be defined and solved before tourism development planning. Environmental problems listed before require (see chapter 5.2.1.) a wide range of complex measures and regional aspects

Belarus is a country with a transition economy. It outlines that all sectors are shifting to a market of goods and services. Therefore, the **market recommendations** should be implemented without fail. Due to a limited number of investors in the areas administration, they should improve their market attractiveness in cooperation with other local tourism operators. Price policy during tourism product proposals should be improved with implementation of flexible elements such as seasonal and group discounts; packet tours proposals including certain number of complex services. Finally, a price
policy will include comparison level between prices of tourism services in Belarus with other neighboring markets: Russia, Ukraine and EU relatively to national and international visitors.

The main value for tourism must be human health and safety. It is impossible to make tours without risk assessments for most dangerous tourism activities in national park and reserve.

**Service and educational level of staff** are seen as a driving force for tourism development that can be useful for both management operations and tourism satisfaction. It is important for the education of staff to improve relations with educational establishments (i.e. with universities and high-schools) and provide thesis proposals within protected areas. Educational courses for private stakeholders dealing with business, planning and national environmental legislation and proposals for administration to evaluate possible benefits from increasing role of private sector will help to make cooperation between stakeholders more evident and effective. Service rules can be included in management plans for better practices in management.

A wide range of measures would be desirable concerning technology improvements in information, communication and transportation. As can be seen from questionnaires the administration sees technological improvements as technical aspects without the complex nature of technology and without understanding the relevance of the preparatory phase during decision making. Green technology brand within recycling and prediction processes can be an attractive market brand. Since no one assessment concerning transport environmental impact was done it would be useful to launch any kind of research dealing with that problem.

To solve management conflicts it is needed to extend the role of independent experts as well as evaluate economical benefits for conflict management actions (to seek misunderstanding of possible investors). A number of problems are caused by zoning procedures; therefore the separation between eco-tourism and hunting, hunting and forestry, forestry and reservation is required to make decisions.

According to plan the of development in the parks, eco-tourism and ecological education are defined as mainstream for tourism development. This process is impossible without a list of indicators for eco-tourism certification, such certification can be implemented using already made certifications (Sweden, Australia experience) and collaboration with other parks and Ministry of sport and tourism. Service of eco-tours and excursions should be improved adding historical and ethnological elements and increasing professional level of guides and taxidermists.

**Tyrestå case:**

Experienced gained during visits to Tyrestå Park (Sweden) was able to be used in comparisons made with Belarusian. Evidently, not all practices of management in Tyrestå (even good samples) can be used for exchange of experiences due to different legislation, economical and social conditions and nature parameters. However, it was decided to look at the role of technology, cooperation, service and educational aspects for personal staff.

It was observed that due to a relatively high level of knowledge of other languages (English, German) and participation in Nature 2000, the administration of Tyrestå have greater opportunities to gain more experience in management practices. Such improvements in linguistic and cooperation would be useful for Belarusian parks.
Samples of information technologies used in Tyrestå are audio guides, interactive museum with moves, well-developed web-site etc. All of aforementioned samples are required for implementation in reserve and park. An important part of management in Tyrestå is a team building approach and psychological conditions. Unfortunately, Belarusian staff still has problems with team building. However, these problems cannot be solved without changing situation in the region in general.

**Monitoring proposals:**
The first phase has the following justification. Firstly, it is important to assess current levels of arrivals and existing environmental problems. This data is important to define how deep the monitoring of visitor impacts has to be implemented. In accordance with the questionnaire data it is obviously that service level was not assessed, therefore, it is unclear which monitoring operations will take place within areas. Service level depends mostly on market assessments and possible potentials concerning investments in infrastructure developments. It means that these factors can be taken into account before monitoring procedure. Although, this phase is important to define more exactly which level of monitoring is needed to launch. It will help to coordinate park/reserve opportunities to implement monitoring process with current problems.

![Launching of monitoring process](image)

**First phase:** to monitor market conditions; environmental problems; dynamic trends in arrivals; possible potential for developments (internal and external)

Tool: periodical assessments for market conditions and possible potentials (for example, cost-benefit analysis, sustainable approaches are required); systematic control of arrivals and environmental problems

![Investments in tourism infrastructure and managements;](image)

**Monitoring of visitor impacts and service quality; Monitoring of the first stage monitoring process**

Figure13: Scheme of monitoring process

**Part 8. Discussion on relevant dubious topics**

*How important tourism in general is to each area?*

Since it was considered that the question is too subjective it was decide not to ask the park directly their opinion. It is obviously, that different stakeholders have their own view on tourism in protected areas. During visits to the park and reserve two main positions were distinguished. The first opinion is one of criticism; such criticism is based
on the idea of the destructive nature of the tourism industry. A lot of tourism has remained a destructive force for natural areas, often in combination with detrimental socioeconomic effects for the communities within which it operates. Also in this opinion the primary aims of park are taken into account. It means that the main task for protected areas remains conservation of unique nature. Lots of staff from the scientific department of the park and reserve supports this opinion. One of the important reasons about tourism criticism is corruption and wrong distribution of economical benefits from tourism activity.

Secondly, stakeholders dealing with tourism try to show how important the development of tourism is for the economical benefits of local people and for investment in scientific research. It is proposed to extend nature-based tourism as a tool to improve local economical, social and environmental situations. Therefore, importance of tourism for protected areas is a complicated problem, hence administration must to provide both points of view in order to manage possible conflicts between different stakeholders within study areas.

Zoning and possible ways to improve it?

As has been already covered, zoning is a key management tool for general protected area management (i.e. dividing resource use, or areas requiring different levels of protection) and for specific management of the visitor experience (i.e. separating areas according to visitor experiences so to avoid conflict between different visitor groups). Since zoning is an important tool for management, it was asked if zoning was, what the main reason for zoning was and also a description of the system (it terms of how many zones and what the criteria are used).

Certain criteria was used during zoning such as: geo-ecological, political, economical and societal-cultural. However, these criteria are too common and do not have measurable values. It means that evaluation of factors has a high level of subjectivity. Moreover, other reason for this poor zoning criteria is the remaining problem between different stakeholders and overlapping of operations. For example, there is overlapping of hunting territories and eco-tourism or forestry and hunting zone planning. These problems show not only a poor way of zoning valuation in the park and reserve but also show a problem concerning the right choice of criteria. Universal right choice of sustainable criteria does not exist. There are several efforts to implement complex assessments. For example, zoning based on capacity principle can be provided. Carrying capacity typically is defined as the maximum number of people that a site can accommodate without unacceptably impacting upon the environmental and social qualities which the protected-area status seeks to preserve (usually assessed according to a number of different indicators). At the same time, the approach has a criticism from a wide number of European park researches. The concept ultimately failed due to asking the wrong question: “How many is too many?” Carrying capacity is intrinsically a quantitative term, yet research was showing that many problems of recreational use were a function not so much of numbers of people, but their behavior.

Stakeholders issue: state and private sectors? Where is the problem?

Within the setting of a protected area the actual management body of the park in most cases has a very large influence over how the area is managed and portrayed. In the park
and reserve the services (accommodations, eateries, transport providers) and landowners (agriculture, forestry) are largely under the control of state individuals or included in the park/reserve bodies. Service providers have obvious implications for the visitor experience, but landowners also have an impact, for instance a traditionally managed farm contributing a great deal to the attractiveness of the landscape. It is also worth remembering that there are individuals outside of the park that will have an impact on how the area is portrayed such as media providers.

However, state planning and stakeholders have many problems within the protected areas. They include poaching, illegal logging, intrusive developments and land clearing. Dissatisfaction with the public sector’s record in protecting endangered species has prompted calls for the use of market-based instruments and other economic incentives to promote more efficient environmental outcomes [Hatch, Damania, 2004]. Although private sectors can solve a wide range of problems, the economic benefits remain the main criteria for managing in often cases. Therefore, it difficult to define exactly which stakeholder can manage better and which operations should be managed by state and private sectors.

Market orienteering: foreign tourists?

As can be seen from the data analysis, the types of tourism in the study areas are mostly educational excursions, hunting and eco-tourism for Belarusian residents. There is a wish developed by the administration to increase amount of foreign arrivals within the areas. It can be reasonable to solve a number of economical problems as well as problems with the exchange of experiences. From another point of view, such arrivals are not sustainable. Lots of articles are focusing on problems dealing with foreigners and it is outlined that a lot of transportation creates a greater burden for the environment [Hunter, Shaw, 2004]. In some cases tourism with long transportation conditions is becoming the biggest environmental problems for visitor situation [Gössling et al. 2002].

Part 9. Conclusions

In short, the study confirms that it is possible to implement the concept of sustainable tourism in the management of Belarusian protected areas, which will move the local community, environment and economy to a sustainable level. The study identified management structure of tourism in protected areas and distinguished a list of problems and recommendations relative to these problems. It provided a framework for evaluating and developing the tourism product in protected areas and made easier further assessments from a complex multi-relationship point of view.

Main lessons

A number of main external factors and internal driving forces were identified and described for the Belarusian protected areas. Accounting aforementioned factors and forces, efforts to discover crucial problems of tourism management were made. Thereafter, recommendations which deal with areas of development were proposed taking into account international samples and definition of sustainable tourism.
Finally, as can be seen from the research, each of the factors influencing on tourism in the protected areas, and directions of development as well as recommendation areas can become a separate topic of research.

**Further step in the research**

There is a need to further develop the tourism management practices in Belarus. There is a need to develop a methodology for tourism management, as well as for environmental, economic and social evaluations of the parks current tourism systems. There is a need for the complementary development of methodological approaches for monitoring procedures which are vital parts of tourism operations and in finding new business opportunities.

Management operation in parks should become the object of new research for the implementation new market economical rules and for stabilization of stakeholders’ activities. Analysis of stakeholder networks for tourism management, identification of potential conflicts of interest and suggestions for their resolutions will facilitate tourism advancement and should be a priority research area in the future.
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Figure 13: Scheme of monitoring process


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Березинский заповедник Программа развития туризма ГПУ «Березинский биосферный заповедник» на 2007-2009 гг.

Ивкович В.С., Каштальян А.П Совершенствование системы сохранения биологического разнообразия охраняемых природных территорий на основе создания Учебного центра в Березинском биосферном заповеднике (2004)


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Appendix 1

Questionnaire: example 1
Part 1 (General features)

1.1. Sizes of territory and statute

<table>
<thead>
<tr>
<th>Name of protected area</th>
<th>IUCN category</th>
<th>Size of territory, ha</th>
<th>Size of recreational zone, ha</th>
</tr>
</thead>
</table>

1.2. Local unique features (justification and rationale of these protected areas)

<table>
<thead>
<tr>
<th>Element</th>
<th>Managing</th>
<th>Particularly managing</th>
<th>Observe</th>
<th>Particularly observing</th>
<th>No manage</th>
<th>No observe</th>
</tr>
</thead>
</table>

1.3. Stakeholders’ assessment included in area’s activities and taking into account tourism

1.3.1. Which stakeholders are included in protected area’s tourism activities?

<table>
<thead>
<tr>
<th>Level</th>
<th>Property forms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>State</td>
</tr>
<tr>
<td>International</td>
<td></td>
</tr>
<tr>
<td>National</td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td></td>
</tr>
</tbody>
</table>

1.3.2. Influence on decision-making process from aforementioned stakeholders

<table>
<thead>
<tr>
<th>Influence level for decision-making process</th>
<th>Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Absence</td>
<td></td>
</tr>
</tbody>
</table>

1.4. Source of funding for decision-making and maintenance operations within protected areas

1.4.1 Which sources are available? And is it enough for the administration and management?

<table>
<thead>
<tr>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>High supply</td>
</tr>
<tr>
<td>Enough supply only for certain projects</td>
</tr>
<tr>
<td>Scarce supply</td>
</tr>
</tbody>
</table>

1.5. Technological level (including tourism), challenges forward sustainability trends

1.5.1. Have you any ecolabel technologies in park, if so what is these?
1.5.2. *Opinion about concept “predict-reuse-recycling”, have you any training for that conception*

1.6 Zoning aspects
   1.6.1. *Is there any zoning system?*
   1.6.2. *Are any special zones for recreational area?*
   1.6.3. *Can visitors define zones visually?*
   1.6.4. *Which factors are used for a zoning system?*
   1.6.5. *Is a zoning system a solution for conflicts?*
   1.6.6 *Have zones been changing within existing period of park/reserve?*

1.7. Environmental problems (incl. tourism)

<table>
<thead>
<tr>
<th>Problem</th>
<th>Global</th>
<th>National</th>
<th>Neighborhood</th>
<th>Inside</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Problem</th>
<th>Urgently</th>
<th>In future</th>
<th>Not expect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Part 2. (Tourism management)**

2.1. Have you any tourism plan?
2.2. Can be proposed what tourists want or park wants?
2.3. Park efforts toward different types of tourism (focus priority)

<table>
<thead>
<tr>
<th>Type of tourism</th>
<th>Strong</th>
<th>Average</th>
<th>Weak</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wilderness visits</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature based visits</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recreational; holidays and adventure based experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ecological education, including child oriented experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sport nature-based tourism, active experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hand craft and ethnological tourism</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hunting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural and agritourism</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural/historical experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.4. Which of these types managing by park organization? By local owners? By private sector stakeholders?

2.5. Information for tourists
   2.5.1. *What type of information could tourists get before, during and after visit?*

<table>
<thead>
<tr>
<th>Information</th>
<th>Before</th>
<th>During</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web-site</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Particularized tourism exhibitions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Printed pamphlets, fly cards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stands with information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guide information</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2.6. Education

2.6.1. **Have you educational elements for tourists**

<table>
<thead>
<tr>
<th>Object for education</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fauna of the protected area</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Flora of the protected area</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Ecological relations</td>
<td>+1</td>
<td></td>
</tr>
<tr>
<td>Ecological problems</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Local community features</td>
<td>+2</td>
<td></td>
</tr>
<tr>
<td>Relations “human – nature”</td>
<td>+</td>
<td></td>
</tr>
</tbody>
</table>

2.6.2. **Have you any training programs for staff? If so, how often and which?**

**Part 3 (Monitoring process)**

3.1. Methods of monitoring and its objectivity (incl. for tourism)

3.2. Monitoring of arrivals

3.2.1. **Did you measure the annual and seasonal number of visitors?**

3.2.2. **Have you problems with crowding relating to whole territory? to recreational zone? to sub-areas of recreational zone?**

3.2.3 **Have you any problems with overcrowding during the whole year? only certain seasons?**

3.2.4. **How can you describe a general approach for monitoring with sustainable elements?**

<table>
<thead>
<tr>
<th>Necessary</th>
<th>Not necessary</th>
<th>Not yet</th>
</tr>
</thead>
<tbody>
<tr>
<td>National park</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reserve</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.2.5. **Accordance with what visitor want**

3.2.6. **Do you provide questionnaires to investigate desires of tourists? What the way: automatically.. entrance.. particularly**

**Appendix 2 Qestionnaire about tourists’ opinion.**

**source: Berezinsky Reserve**

Dear Guest!

We would be happy to learn your opinion about first experience in Berezinsky. Your notes and recommendations will help us to improve our services to make your next visit more comfortable and enjoyable. Thank You for your time and welcome to Berezinsky next season!

1. Name, Surname……
2. Age: [18-30]…… [31-40]…… [41-50]…… [51-60]……[61-70]……[71-80]…
3. Gender: Male Female
4. Country of residence:
5. Occupation:
6. What did you know about Belarus and Berezinsky prior to the visit?
7. Why did you choose Berezinsky as a wildlife destination?
8. What did you like most of all in the reserve?
9. Which of the observed species of birds and animals are most interesting to you?
10. Your comments and suggestions on:
    a. Observation facilities
    b. Guides
    c. Transportation
    d. Accommodation
    e. Meals
Appendix 3: Scheme of tourist management accordingly “Development Plan of Berezinsky Reserve” until 2010

- General Director
- Director of the hunting department
- Depute director in ecological education and tourism
- Depute director in research and science departments
- Forestry head officer
- Tourist researches

- Hotels, accommodations
- Directors of hotels
- Head of ecology-tourism department
- Museums, eco-paths
- Zoo, open-air cages
- Excursion and tourist office

Scientific guidance and technical support