



**Slovak Case Study  
Management Effectiveness Assessment of National  
Parks using WWF's RAPPAM Methodology**

2004

## **Summary**

Issue of effective management in the national parks has been priority of the World Wildlife Fund (WWF) for several years. This was brought up by discovering that only establishment of the national parks is not sufficient for sustaining and preserving of biodiversity worldwide. Although, it is a very important first step, without implementing of appropriate natural resources management objectives and goals of protection remain unfulfilled.

This report gives an overview of results of two-day workshop seminar, which was held to assess management effectiveness of Slovak National Parks. Report provides important information not only for administrations of the national parks, but also for purpose of strategic planning on the level of the State Nature Conservation and Ministry of Environment. It clearly identifies strengths and weaknesses of the National Parks management and points out priorities and directions where to allocate resources.

### ***Main pressures and threats***

The most significant pressures and threats within National Parks of Slovakia (descending, according to significance) include forestry management, tourism and recreation, building and infrastructure development, agriculture, hunting and poaching.

From the view of biological and social significance of existing threats leading National Parks are: TANAP, National Park Slovak Paradise, National Park Mala Fatra and National Park Poloniny.

### ***Management strengths and weaknesses***

Management strengths are represented by existence of relevant laws and regulations for the protection and maintenance of biodiversity, site design of protected areas, clearly identified boundaries, skills of administration employees, good internal organisation and decision-making processes.

Management weaknesses are represented by unsettled disputes regarding land tenure and user rights, low level of support from local communities due to the fact they are not involved in decision-making process, inadequate staffing and human resource policies, inadequate financial resources and long-term financial planning, non-existing management plans and zoning, non-existing analysis of pressures and threats and inadequate survey of social needs and requirements within National Parks.

### ***Strengths and weaknesses regarding protected areas system and policies***

Strengths include size and representativeness of protected areas system (PAS) and its overall contribution to maintain natural processes and biodiversity.

The most significant weaknesses include: low level of communication and coordination between Ministry of Environment and Ministry of Agriculture, conflicts in legislation and low level of implementing and enforcing of laws, inadequate implementing of sustainable management of natural resources in other national strategies and policies, insufficient ensuring of preservation of the protected areas, insufficient analysis of weaknesses in PAS and low level of environmental consciousness and education .

## Introduction

The management assessment of the National Parks of the Slovak Republic (SR) was based on agreement between Ministry of Environment of SR, State Nature Conservation and WWF.

The assessment was performed following the methodology for the rapid assessment and prioritisation of protected area management (RAPPAM) prepared by the WWF experts. The RAPPAM methodology draws on an evaluation framework of protected areas (Hockings et al. 2000) developed by the World Commission on Protected Areas (WCPA). This methodology is based upon management cycle consisting of the following assessment elements:

- Visions (goals and objectives including legal security, area and borders).
- Context (pressures and threats, biological importance, socio-economic importance, vulnerability),
- Management inputs (staff, information, communication, technical equipment, infrastructure, finances)
- Management processes (planning, decision-taking, monitoring, research and evaluation)
- Outputs and outcome.

In addition, the methodology was designed for a broad-level assessment, i.e. for the evaluation of protected areas system as one unit (system and representatives of protected areas, legislation, environment policy).

The assessment was based on filling-in of the assessment questionnaire by all National parks. The sample of the questionnaire is attached.

The assessment was performed during two-day workshop held on 26<sup>th</sup> and 27<sup>th</sup> April 2004 in the education centre of the State Nature Protection of SR in Varín. Part took 37 participants. Participating parties were representing all National Parks of Slovakia (directors, zoologists, botanists, forestry and landscape ecology specialists), a representative of Ministry of Environment of SR, a representative of Ministry of Agriculture of SR, a representative of the State Nature Protection of SR – the Centre of Nature and Land Protection, representatives of private owners of the forests situated in the national parks, a representative of the state enterprise State Forests of SR and of the State forests of the Tatra National Park (TANAP), mayors of the towns located in the national parks, representatives of non-governmental organisations and representatives of WWF.

## National parks of the Slovak republic

| National Parks (NP)   | Year established                  | Area ( ha) |             |         |         |
|---|-----------------------------------|------------|-------------|---------|---------|
|   |                                   | Area of NP | Buffer Zone | Total   |         |
|    | Tatra National Park (TANAP)       | 1949       | 73 800      | 30 703  | 104 503 |
|    | National Park Pieniny (PIENAP)    | 1967       | 3 750       | 22 444  | 26 194  |
|    | National Park Low Tatras (NAPANT) | 1978       | 72 842      | 110 162 | 183 004 |
|   | National Park Slovak Paradise     | 1988       | 19 763      | 13 011  | 32 774  |
|  | National Park Malá Fatra          | 1988       | 22 630      | 23 262  | 45 892  |
|  | National Park Poloniny            | 1997       | 29 805      | 10 973  | 40 778  |
|  | National Park Muránska Planina    | 1997       | 20 318      | 21 698  | 42 016  |
|  | National Park Slovak Karst        | 2002       | 34 611      | 11 742  | 46 353  |
|  | National Park Veľká Fatra         | 2002       | 40 371      | 26 133  | 66 504  |

## Results of the analysis

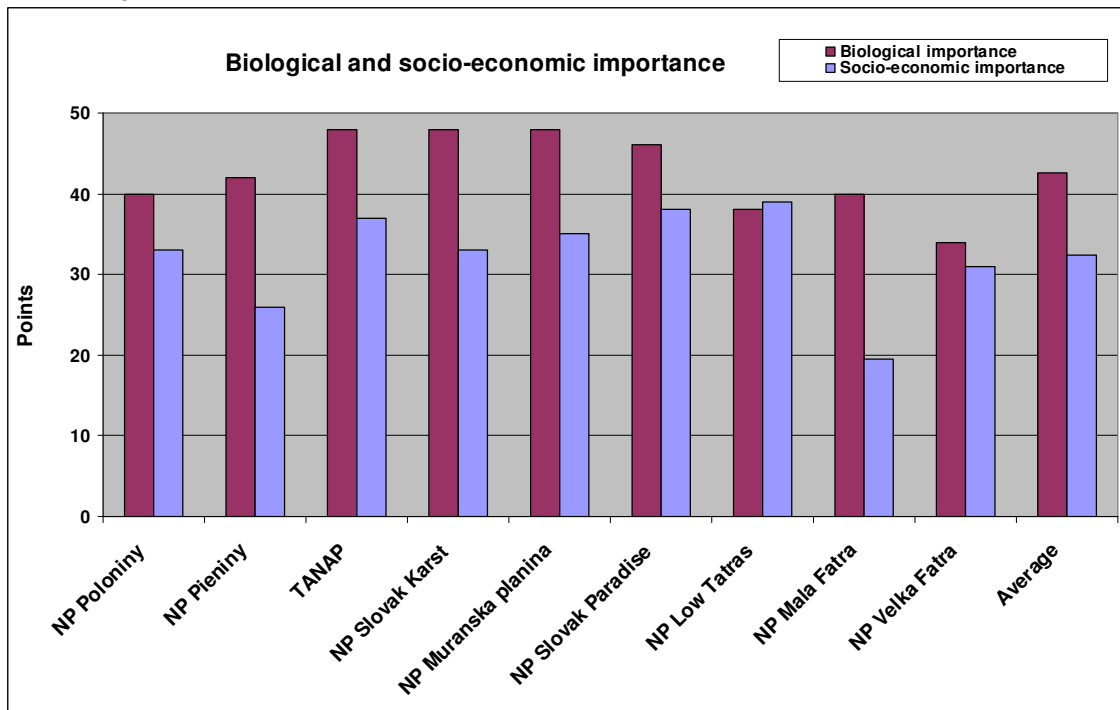
### Biological and socio-economic importance and vulnerability

Biological and socio-economical importance was assessed in questions no 3 - 5.

As a part of the *biological* importance was mainly assessed biodiversity of area, presence of rare, protected, endangered species, degree of endemism, survival conditions of populating species, landscape function, presence of rare ecosystems, degree of preservation natural processes in area etc.

As a part of *socio-economical* importance was assessed the way individual National Parks contribute to the level of employment for local communities, significance of sustainable natural resource management for local communities, significance of meeting general society needs such as water management, recreation, education, science, spiritual and aesthetic importance.

Figure 1



Based on the responses given in questionnaire, each protected area receives numerical index for biological and socio-economical importance (maximum 50). Results are shown in Figure 1.

Biological importance was highly evaluated in all national parks<sup>1</sup>. Furthermore, in the majority of the national parks biological importance was assessed higher than the socio-economic one. The Low Tatras National Park was the only exception in this case.

<sup>1</sup> For the correct interpretation of the figure note that biological importance was assessed in Question 3 consisting of 10 sub-questions. Numerical evaluation of the answers was as follows: yes – 5 points, mostly yes – 3, mostly no -1, no - 0. This would mean that the maximum achievable score is 50 if all answers were „yes“. The assessment of socio-economic importance and vulnerability was performed similarly.

*Vulnerability* of the national parks was assessed in Question 5, where was assessed 10 activities which have significant influence on vulnerability of PA. Results are shown in Figure 2. High Tatras National Park, TANAP, is the most vulnerable national park, while the level of vulnerability in the other national parks is approximately the same.

Figure 2

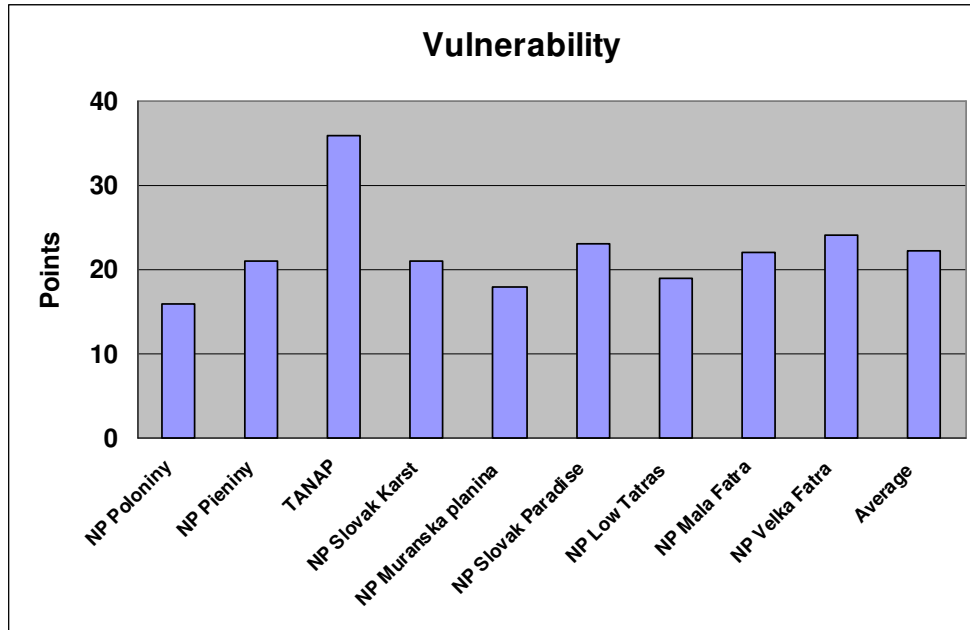
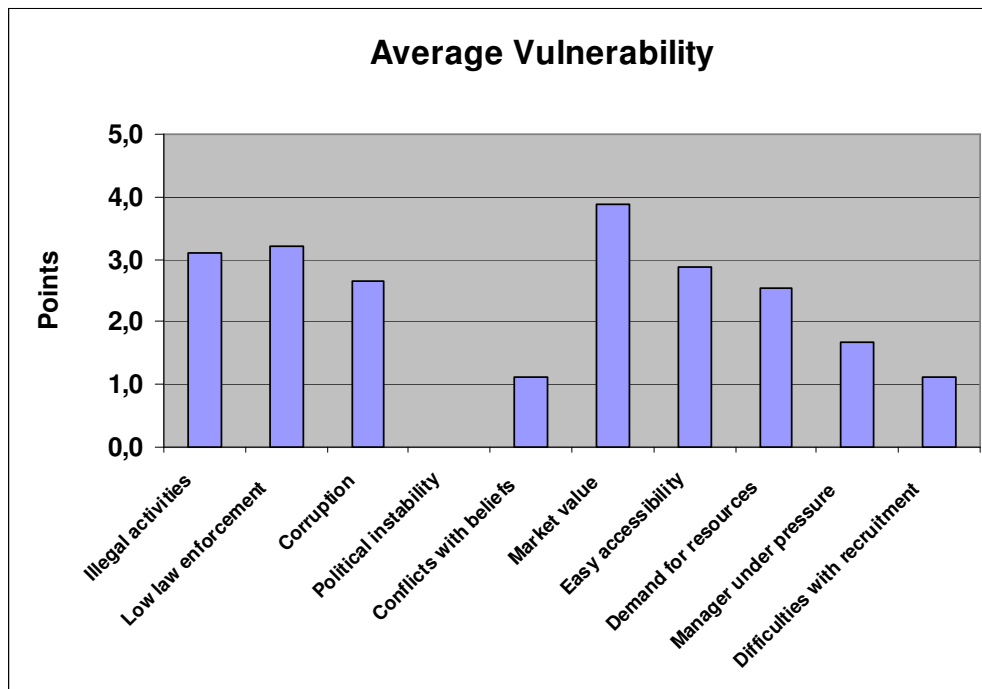


Figure 3



Average vulnerability of all Slovak National Parks is evaluated according to specific issues given in Figure 3<sup>2</sup>. It was confirmed that national parks are mostly vulnerable because of the high market value of their natural resources.

In majority of national parks, enforcement of law was regarded as insufficient. The assessment pointed out issue of different interpretation of the individual acts, the existing discrepancies between individual acts and low law consciousness.

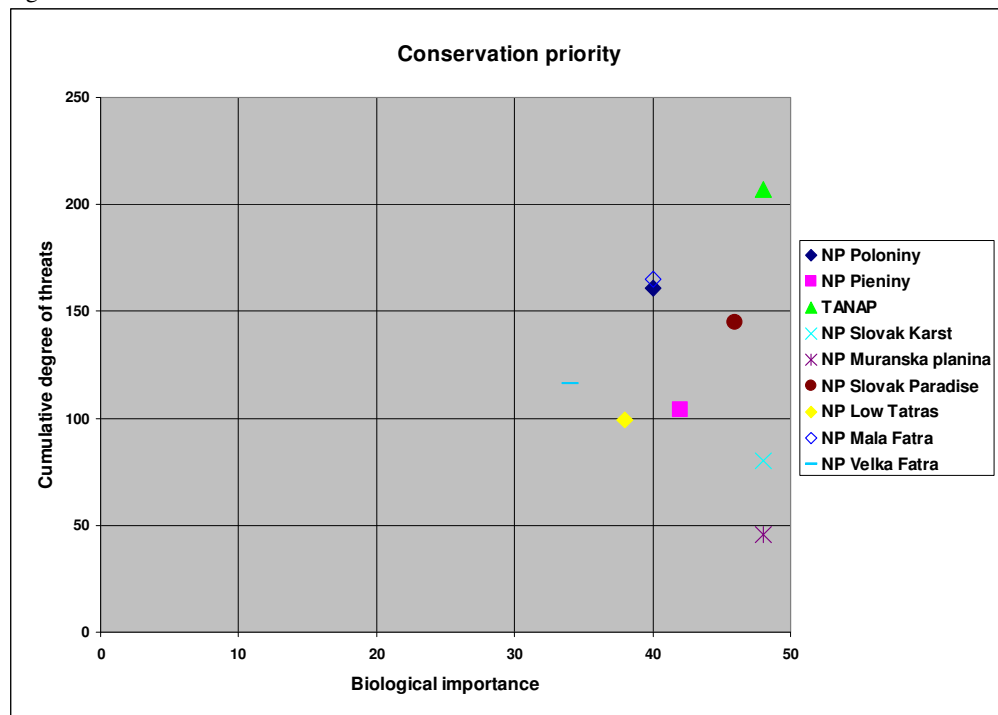
In general, it is difficult to monitor illegal activities within national parks, which further contributes to areas vulnerability. Performing of illegal activities is made easier by easy accessibility of protected areas.

Vulnerability as consequence of high demand for natural resources as result of bribery and corruption was assessed as average.

The pressure put on the national park administration employees to exploit national park resources illegally was rated as a low one. However, it was emphasised that the managers with greater competence are under much higher pressure. This comes from various lobby groups during decision-making process regarding area and resource utilisation of the NP. It was also pointed-out there is a pressure on state enterprises who are real managers of state land in NPs to exploit natural resources with a view to achieve financial profit. Vulnerability as consequence of conflict between cultural and traditional uses of the national parks and objectives of environmental protection was assessed as low. Recruitment and retention of administrative employees of the national parks was not considered as problem influencing vulnerability.

Political instability and civil unrest were not found to be a problem in any of the national parks.

Figure 4

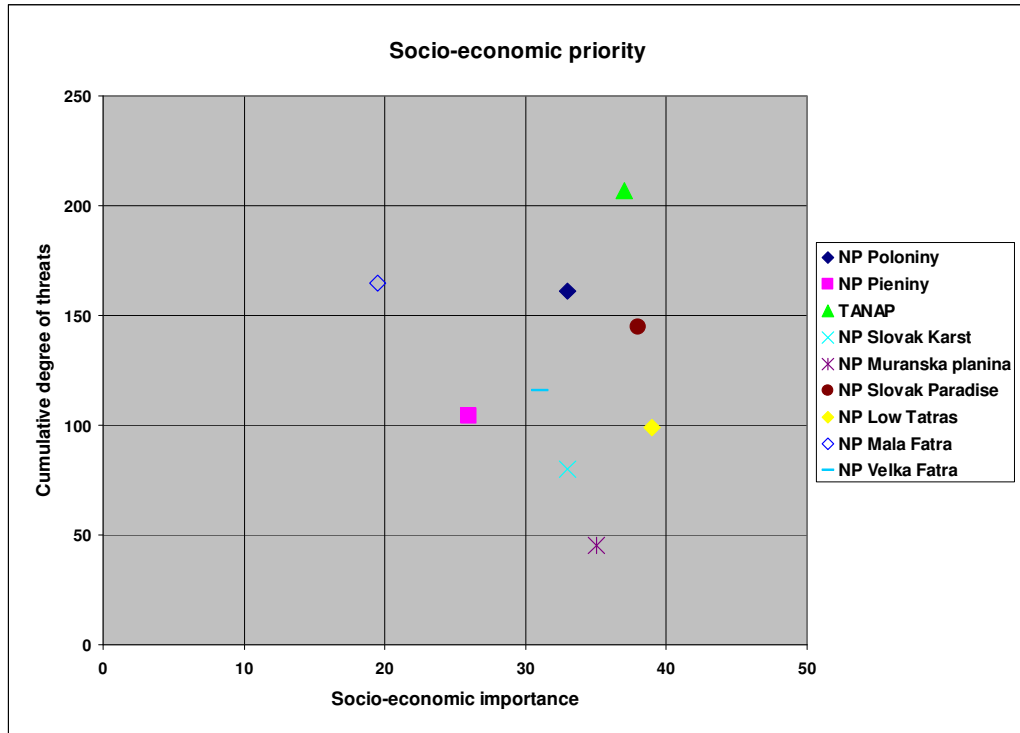


<sup>2</sup> For the correct interpretation of the figure we refer that e.g. the average score 5 means that on the particular question all NP representatives gave a „yes“ answer, whereas the score 0 says that all responded „no“. The score 3 means that in average the evaluators answered the question with „mostly yes“, and the score 1 denotes that an average response is „mostly no“. Note that higher value implies larger problem.

Figure 4 enables to compare biological importance with cumulated threats in the individual national parks. The regions with the highest biological importance and the highest value of threats should be prioritised in protection activities.

Comparing of socio-economic significance and threats in NP has been carried out in similar way (Figure 5)

Figure 5



## Pressures and threats

Slovak National Parks are being put under variety of pressures and threats. *Pressures* are forces or events that already have **existing** detrimental impact on integrity of the protected area (i.e. diminished biodiversity, inhibited regeneration process or impoverished the area's natural resources) Pressures can include both, legal and illegal activities and may be results from direct or indirect impact of certain activity. *Threats* are **potential** or **impending** pressures in which a detrimental impact is likely to occur in near future or are likely to continue.

The joint discussion of the workshop participants and the answers in the questionnaires identified the following 10 main groups of pressures and threats.

- Tourism and recreation
- Forestry / Forest management
- Conversion of land use (Building and infrastructure development)
- Hunting and poaching
- Non-timber forest products (NTFP) collection
- Mining
- Waste disposal and pollution
- Invasive alien species
- Climate changes
- Agriculture

For each National Park there were identified most significant pressures and threats. For each threat/pressure there was assessed its scope, impact and detrimental permanence. Based on this, numerical index reflecting overall significance of threat/pressure for each National Park (max 64) was given. Detailed evaluation of the given pressures and threats is presented in the following Figures.

Figure 6

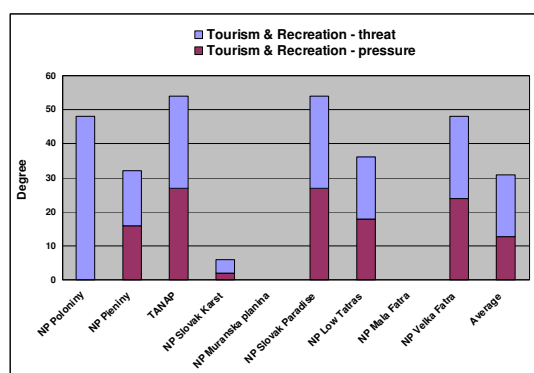


Figure 7

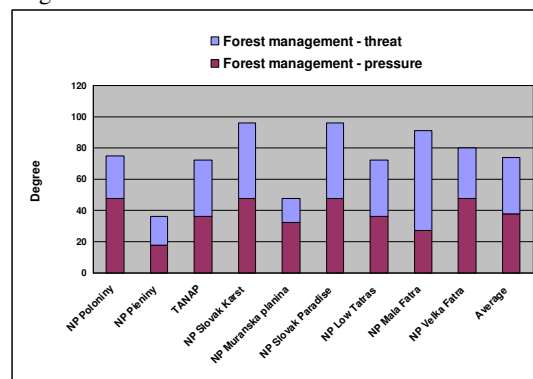


Figure 8

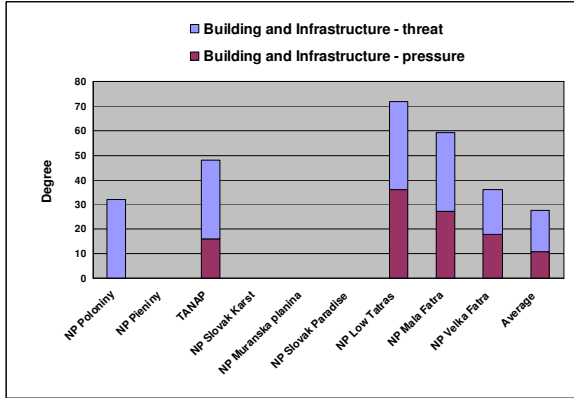


Figure 9

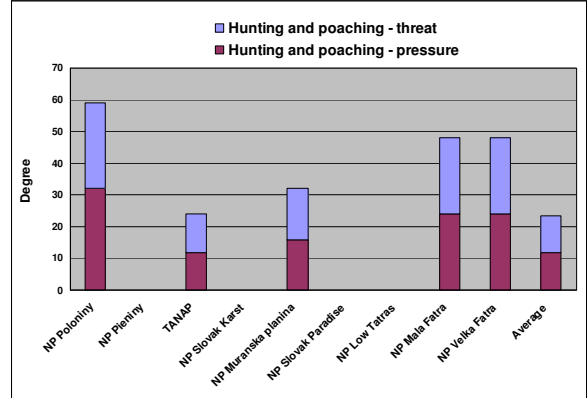


Figure 10

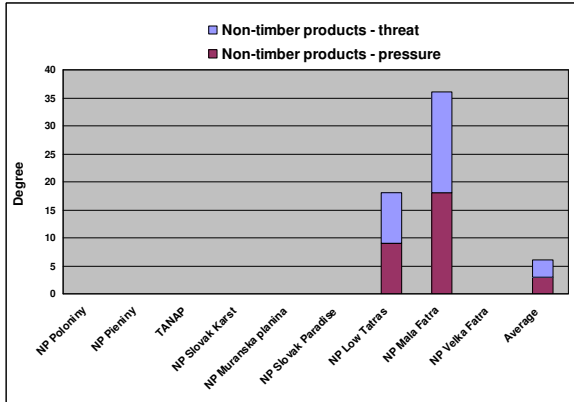


Figure 11

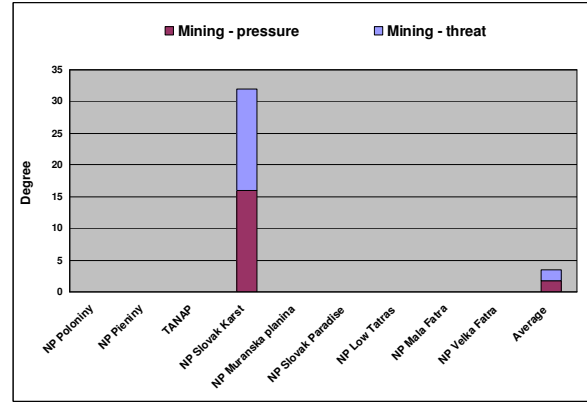


Figure 12

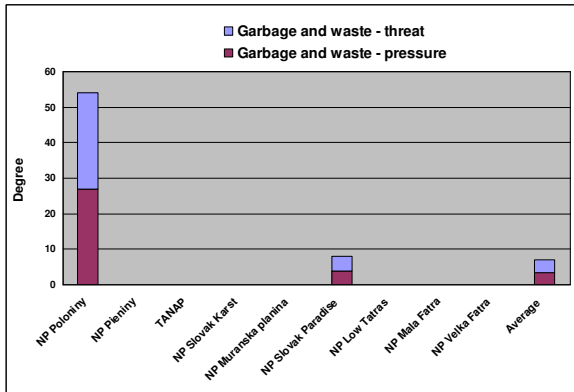


Figure 13

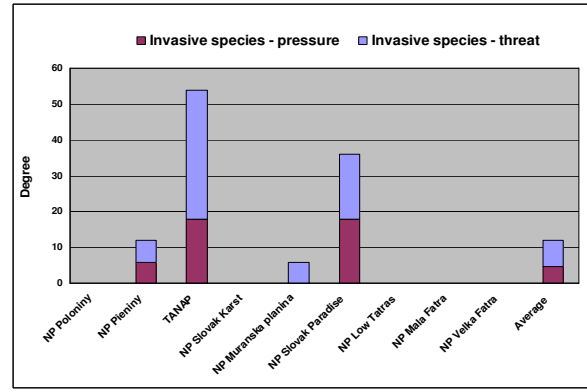


Figure 14

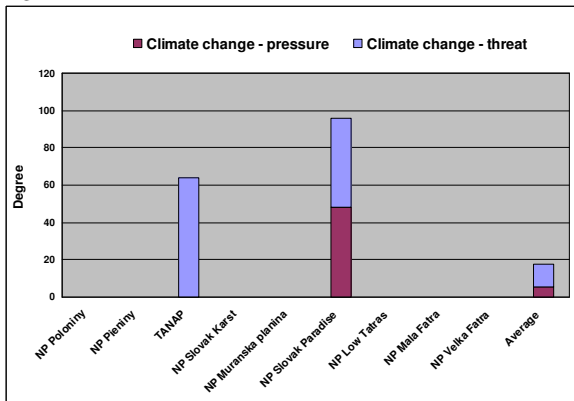


Figure. 15

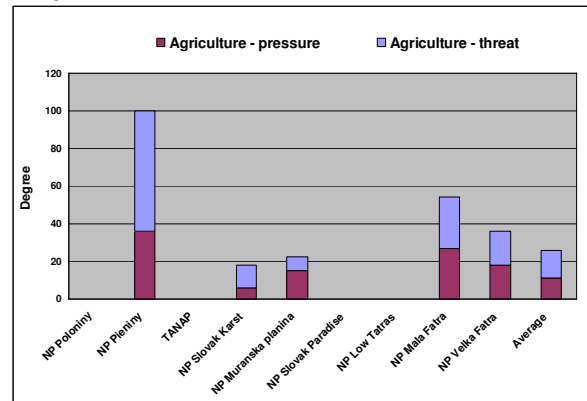


Figure 16

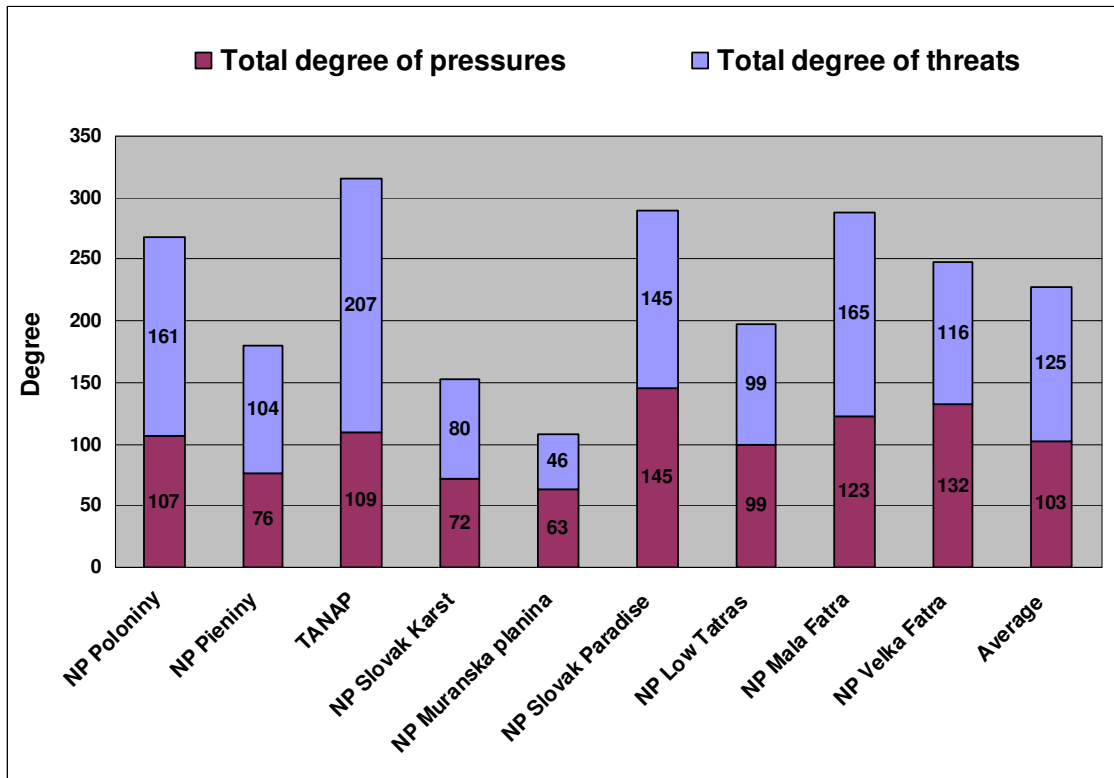


Figure 17

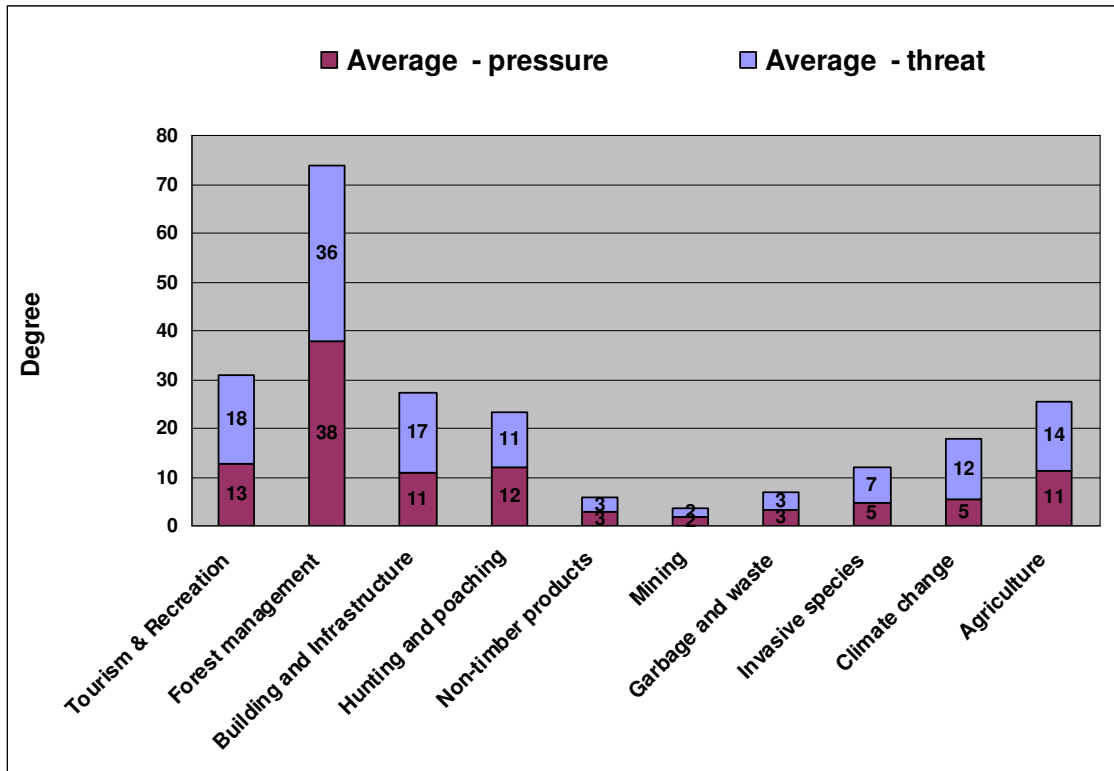


Figure 18

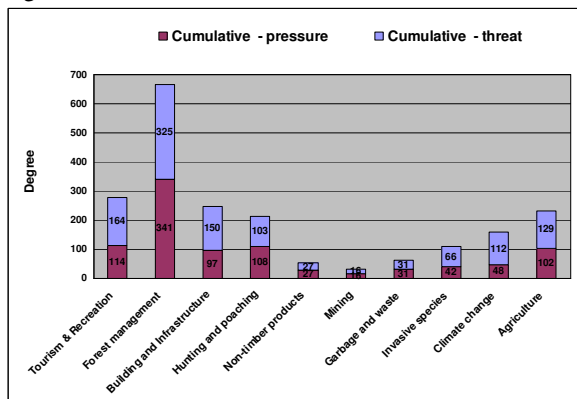
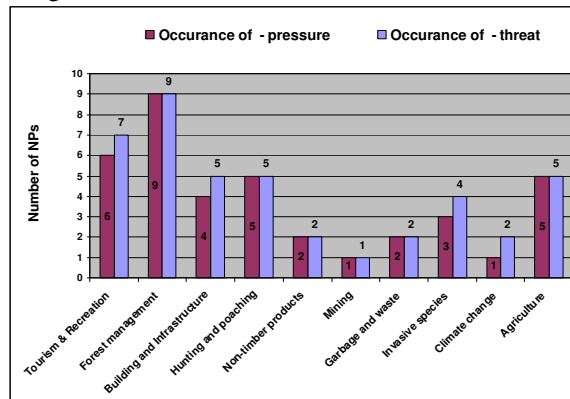


Figure 19



## Description of pressures and threats

### 1. Forestry

Forest management was described as the most important pressure and threat in all nine National Parks of Slovakia (Figure 7).

Due to inapt forest management there are concerns of diminishing biological diversity of forest ecosystems, of water cycle disturbance, decline in number of natural and semi-natural forest stands, destruction of buffer zones of the natural reserves, improper modification of forest stand age structure, destruction of nesting biotopes of birds of preys and of in cavity nesting birds.

The impact of forest road construction as well as other forestry infrastructure was especially emphasised.

It was also stated that forest management is one of the most substantial factors, why the IUCN criteria for the National Parks cannot be met, i.e. the establishment of the adequate core zone without human intervention.

In the case of the National Park Slovak Paradise issue of illegal logging by the Roma communities was brought up.

Main causes:

1. Discrepancies between forestry and environmental legislation
2. Management of state forest land within the national parks – national park administration employees are not managers of the state forest land in the national park, forest land is managed by the state organisations that come under the competence of Ministry of Environment of SR
3. Low influence of national park administration employees on forest management in NP.
4. Tendency to increase economical benefits of the forests (both state and private) in NP – increasing logging (legal and illegal) and management intensity.
5. Non-functional compensation system for the restriction on forest management – particularly emphasised.
6. Unsettled ownership
7. Low utilisation of sustainable forest management practices.

## **2. Tourism and recreation**

Tourism and recreation were found to be the second most significant pressure and threat (Figure 6). This covers mainly the increasing visitors rate, development of new sports (paragliding, snow scooters, terrain motor cycles, alpine skiing, mountain cycling), illegal movement, disrespecting visitor regulations, pressure to improve tourist infrastructure (chalets, refreshments, paths). Because of such activities, animals are disturbed, plants and biotopes are damaged, and ground cover is destroyed and eroded. The administration of national parks does not have a sufficient capacity and necessary tools to control and regulate number and behaviour of visitors.

Tourism and recreation development was established to be a problem mainly in the TANAP, NP Slovak Paradise and NP Velká Fatra. In the NP Poloniny tourism was not identified as a pressure in the past, but there are strong potential threats in the future.

Particularly in the NP Poloniny and TANAP, there are certain concerns because of the border crossings opening (and therefore an increased visitors` number) as consequence of the EU extension.

## **3. Building and infrastructure development**

Building and infrastructure development within the area of NPs was assessed as the next significant pressure and threat (Figure 8). This is closely related to the tourism and recreation development. In this case, it would be building of new hotels, pensions, ski resorts or new roads, extending of the existing settlements etc. These activities are part of large investment and development projects whose intensions are to build further tourist facilities and enhance tourist services. Hence, these projects often represent permanent loss of the natural environment in national parks.

Addressing of these issues raised concerns regarding allocation of the EU structural funds for the co-financing of these projects.

TANAP, NAPANT and the NP Malá Fatra are the national parks facing the highest threat of new building and infrastructure development.

In the NP Poloniny exists a specific threat of building new technical facilities for border protection after the admission to the EU and NATO.

## **4. Agriculture**

Agriculture represents pressure and a threat on two levels. On one level, there is a recession and decay of agriculture coupled with abandoning of traditional farming, mainly grazing. This causes the biodiversity reduction of secondary communities, start of the succession and pastures overgrowing. The agricultural decay was assessed as a serious problem in PIENAP, NP Malá Fatra, NP Veľká Fatra, NP Muránska planina and NP Slovak Karsts (Figure 15).

On the second level, the areas of national parks are also under threat of intensive and inappropriate agricultural methods (e.g. unregulated and concentrated grazing). These issues were evaluated as threats in the NP Velká Fatra and the NP Muránska Planina.

In relation to agriculture within all national parks, unsatisfactory state subsidy policy was brought up. After the admission to the EU the common agricultural policy affect Slovak agriculture significantly, which also have a great impact on protected areas.

## **5. Hunting and poaching**

Legal hunting as well as illegal game shooting (poaching) represents another great pressure and threat facing Slovak National Parks (Figure 9). The problem of extensive poaching is related to the bad economic situation of the population in individual regions and insufficiency of law implementation and enforcement. There are also fears of progressive commercialisation of hunting (preparation of new legislation).

Issue of hunting and zoning of national parks has been raised. It is practically impossible to create a standard zone A in the national parks, since hunters make a permanent effort to manage game.

Hunting and poaching were defined as a problem in five national parks. During past five years the highest pressure has been put on the NP Poloniny, which is closely related to the poor economic situation and the high unemployment rate in the region. High potential hunting and poaching threat is mostly expected in the NP Poloniny, NP Malá Fatra and NP Velká Fatra.

#### **6. Climate changes, invasive species, waste disposal and pollution, exploitation of non-timber forest products, mining**

According to the survey above-mentioned issues were evaluated as problems with lower significance in all Slovak national parks (Figures 17,18).

Climate changes (Figure 14) were assessed as a potential threat to the NP Slovak Paradise and TANAP.

Invasive species (Figure 13) represent threat within TANAP, NP Slovak Paradise, PIENAP and the NP Muránska Planina.

Waste disposal and pollution (Figure 14) pose a problem for the NP Poloniny and the NP Slovak Paradise. In the case of the NP Poloniny this is due to the absence of controlled waste disposal.

Exploitation of non-timber forest products (Figure 10) was identified as a pressure and a threat within the NP Malá Fatra and NAPANT. In both cases, the collection of berries presents the problem.

Mining (Figure 11) is the pressure and threat only in the NP Slovak Karst.

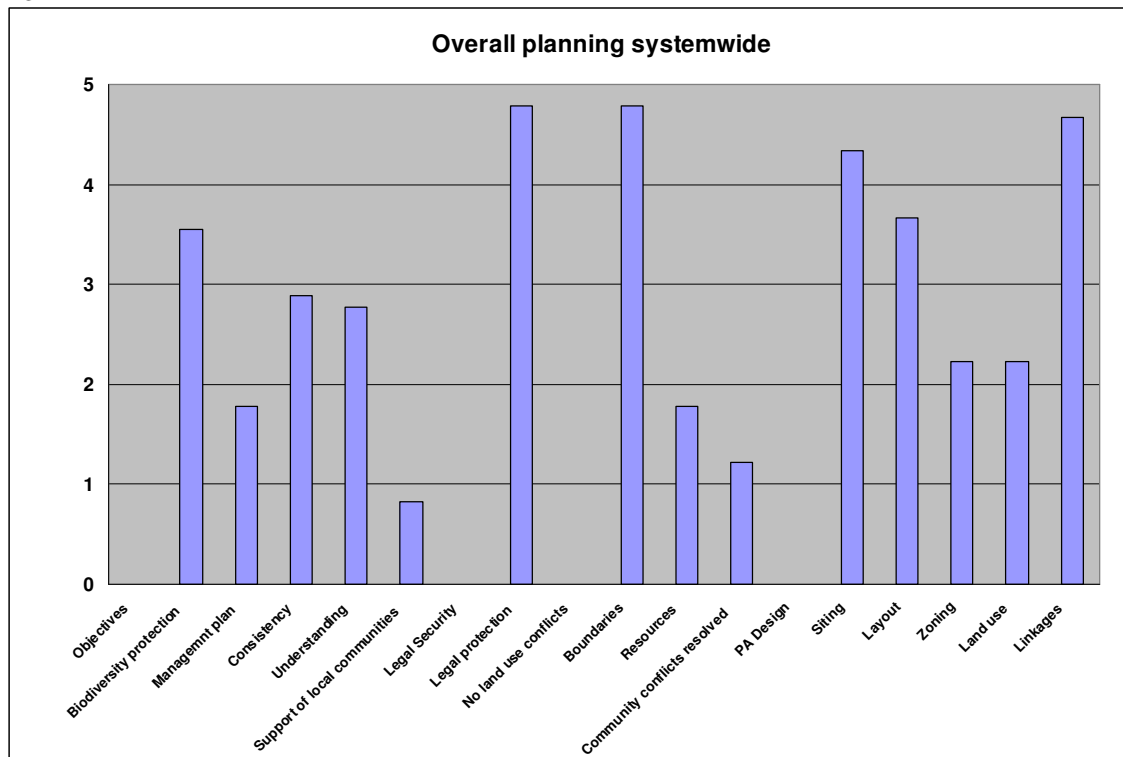
## Analysis of management effectiveness

The analysis covers four aspects of national park management effectiveness: planning, inputs, management process and outputs.

### Planning

The analysis of planning includes the evaluation of the answers to the groups of questions focused on the objectives, legal security, legal protection, and national park site design (Questions 6 - 8).

Figure 20



### Objectives

Set objectives of the national parks are to provide protection and maintenance of their biological diversity, though their implementation is difficult (or impossible). Essentially, problem is the fact that the national parks administrators are not real managers of the area (in reality they do not manage any of the natural resources).

Majority of the national parks do not have elaborated management plan with clearly defined objectives for protection of biodiversity in individual national parks.

The consistency of annual management plan with protection objectives of individual administrations of national parks was evaluated as average.

National parks administration employees do have an understanding of the national park objectives in general. Lower score was only achieved when also representatives of other

institutions, who manage natural resources within the NP area, but are not administration employees, were included in the assessment process.

There is a serious lack of support from local communities in all national parks. This attitude is due to the fact, that majority of the national parks were established without previous consultation and involvement from owners and local communities.

### *Legal security*

Long-term legal security of the national parks was in general assessed positively. It was again pointed out that enforcing of law is often difficult.

Greatest issue in all national parks are existing disputes regarding land ownership and land use. Disputes regarding land ownership are mostly consequence of on-going and complicated process of returning land to its original owners. Disputes regarding land use are mainly due to non-functioning system of compensation (sale, lease, exchange of land, compensation for restrictions in use) regarding restrictions of land management of private landowners as consequence of nature protection. Specific issue are disputes regarding use of state woodland. Woodland in National Parks of Slovakia is managed by state enterprises, which are organizationally administered by Ministry of Agriculture SR. Objectives of these enterprises are often in conflict with objectives of environmental protection defined by administrations of national parks, which are administered by Ministry of Environment SR

Boundaries of national parks are clearly defined.

Staff and financial resources are inadequate to ensure enforcing and conducting of all critical legal activities (i.e. identification of illegal activity, arresting, prevention).

Administrations of national parks do not have tools (dispute resolution procedures), which would draw on fair and effective discussions and agreements between affected parties. This is caused by the fact that there is non-existing adequate and functional system to compensate restriction of users right

### *Site design and planning*

The sitting of the national parks was mostly assessed as positive. Layout and configuration of natural elements (i.e. patches of undisturbed areas, transitions between ecosystems) optimises the conservation of biodiversity. In general, it is possible to state that protected area is large enough to achieve objectives of protection.

Existing zoning system (area of NP with 3 grade of protection including small protected areas with higher grade of protection) are mostly inadequate to meet its goals. It was pointed out that zoning system also would not be in line with protection objectives in the future because it is often result of negotiation with owners and interested groups. These results often mean compromise between interests of owners and protection. This year all national parks are starting to implement new management plans, which include zoning.

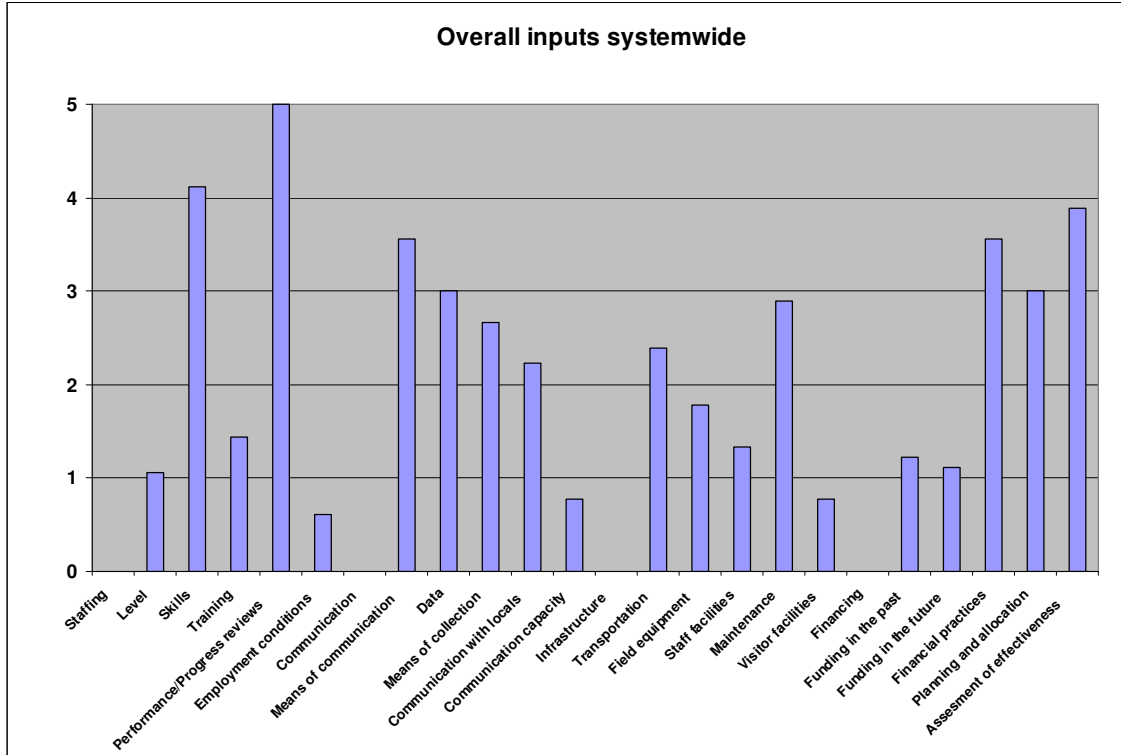
Land use and its impact on resources inside NP were assessed mostly as negative.

All national parks are linked directly or indirectly to another protected areas via buffer zones.

## Inputs

Input analysis includes levels of staffing, information and communication, infrastructure and financing (questions no 9 – 12).

Figure 21



## Staffing

The level of staffing was assessed as insufficient in all national parks to effectively manage the area. There is inadequate staffing of rangers and experts in specific areas.

Administrative employees of National Parks have in general adequate skills and level of expertise to conduct critical management activities. There is a general lack of communication skills.

Training and development opportunities are insufficient.

Majority of national parks do not have adequate long-term strategies and long-term development plans of human resources. There is not a plan for continues professional development. Seminars are usually just an ad hoc response to immediate opportunity and requirement.

Staff performance are periodically reviewed.

Staff employment conditions and level of benefits are very poor. Salaries do not reflect high professional demands, social policies are insufficient, majority of NPs do not have consistent elaborated human resources policy.

### *Communication and information*

There is adequate communication equipment (telephone, faxes, two-way radios, computers)

For needs of management planning there is enough existing biological information (distribution of species, geological data-soil, vegetation maps). Incomplete are mostly socio-economic data (i.e. anthropological studies, socio-economic surveys, assessments of economic needs of local communities)

Equipment for data collection (GPS monitors, field glasses, cameras, tape recorders, surveying equipment) and data analysing (software programmes for GIS analyses, vegetation monitoring, population census and dynamics, database management) were assessed as average.

There is not effective communication with local communities. Majority of national parks just only have started communication with local communities, but there are non-existing communication mechanisms and strategies. Main reason is inadequate staffing and financial resources.

### *Infrastructure*

Equipment of administration of the national parks by vehicles and transportation infrastructure was assessed as average.

National Parks employees have inadequate field equipment to ensure performing of critical management activities.

Staff facilities such as office building, research stations, and field offices, training facilities are also inadequate. Some administrations do not own their own buildings

National parks do not have appropriate visitors facilities. National Parks are not administrators of visitor facilities (hiking trails, shelters, camping areas). Majority of administrations do not have adequate tourist and information centres

### *Finances*

In majority of the national parks, funding in the past 5 years has not been sufficient to conduct critical management activities.

It is forecasted that funding for the next 5 years will not be sufficient to conduct critical management activities. Funding depends on political situation and annual budgets are not certain. There is not long-term financial, well-developed outlook (financial strategies) to provide financial sustainability.

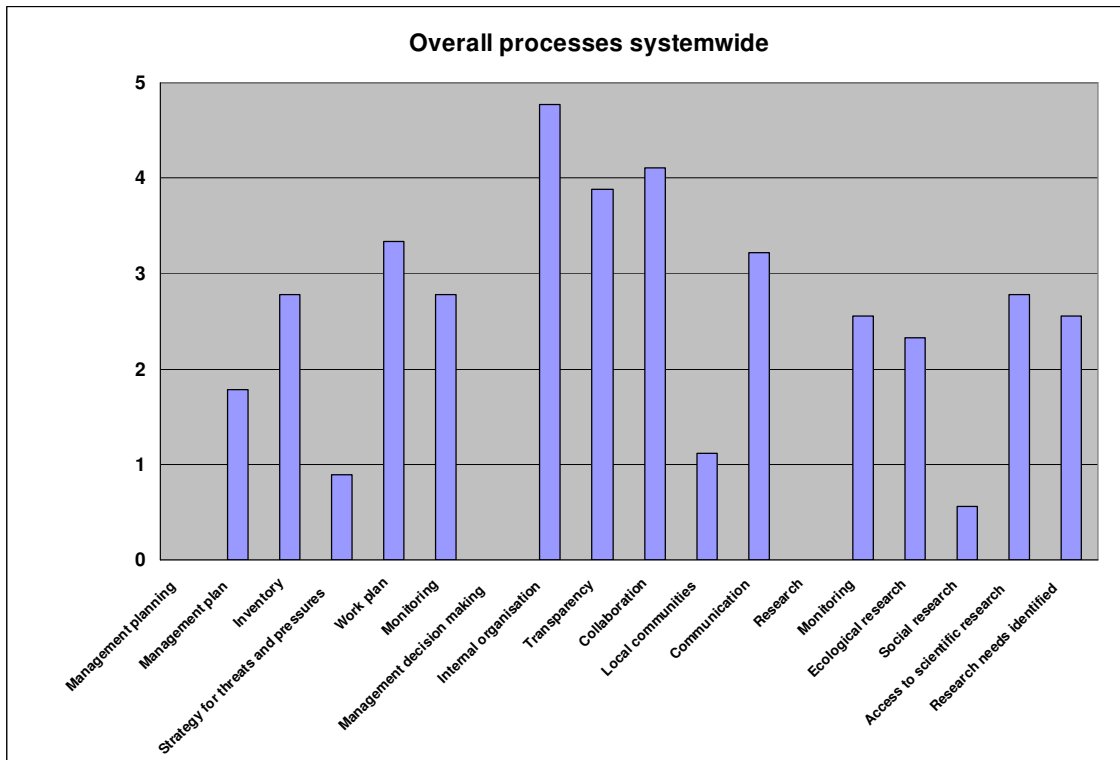
In majority of national parks exist efficient financial management practices (timely reporting, accurate bookkeeping, sound budgeting and timely transfer of funds).

Financial planning and allocation of expenditure was on contrary mostly assessed as positive. Annual budgeting is mostly based on planned annual activities. Allocation and use of financial resources is assessed regularly.

### *Management processes*

Analysis of management process takes into consideration areas of management planning, decision-making (methods of management), research, monitoring and valuation (questions 13-15)

Figure 22



*Management Planning*

Majority of the national parks do not have comprehensive management plan. It was emphasized that existing management plans are not adequate managing tool because they are not base for annual work plans and annual budgets

There are gaps in inventory of natural and cultural resources and some data are obsolete.

National parks do not have comprehensive strategies to address, analyse and eliminate pressures and threats.

Analysis of pressures and threats should be part of management plan methodology.

Critical activities work plan mainly consists of specific tasks and targets whose conducting is necessary for achieving of management objectives.

Results of research and monitoring are into management planning incorporated only on average level.

*Management decision-making*

National parks administrations mostly have defined organization structures, clear communication channels, well-defined job descriptions.

Decision-making process was mostly assessed as transparent.

Level of collaboration administration of National Parks with research and other institutions, local communities, businesses, recreational and other groups was mostly assessed as positive.

Local communities do not participate in decision-making processes that affect them. There are not mechanisms for their participation (i.e. citizen panels, advisory groups). There

are not periodic scheduling processes for feedback on management activities. There are not enough staff resources to ensure effective communication with local communities.

There is mostly effective communication between all level of NPs staff and administration.

*Research, monitoring and evaluation processes*

The impact of legal and illegal activities are monitored and recorded only on average level.

There is not consistent system for monitoring legal and illegal activities and monitoring capacities are inadequate.

Research of key ecological issues mostly does not meet needs of the national parks. Research mostly focuses on occurrence and state rather than research of causes and influences.

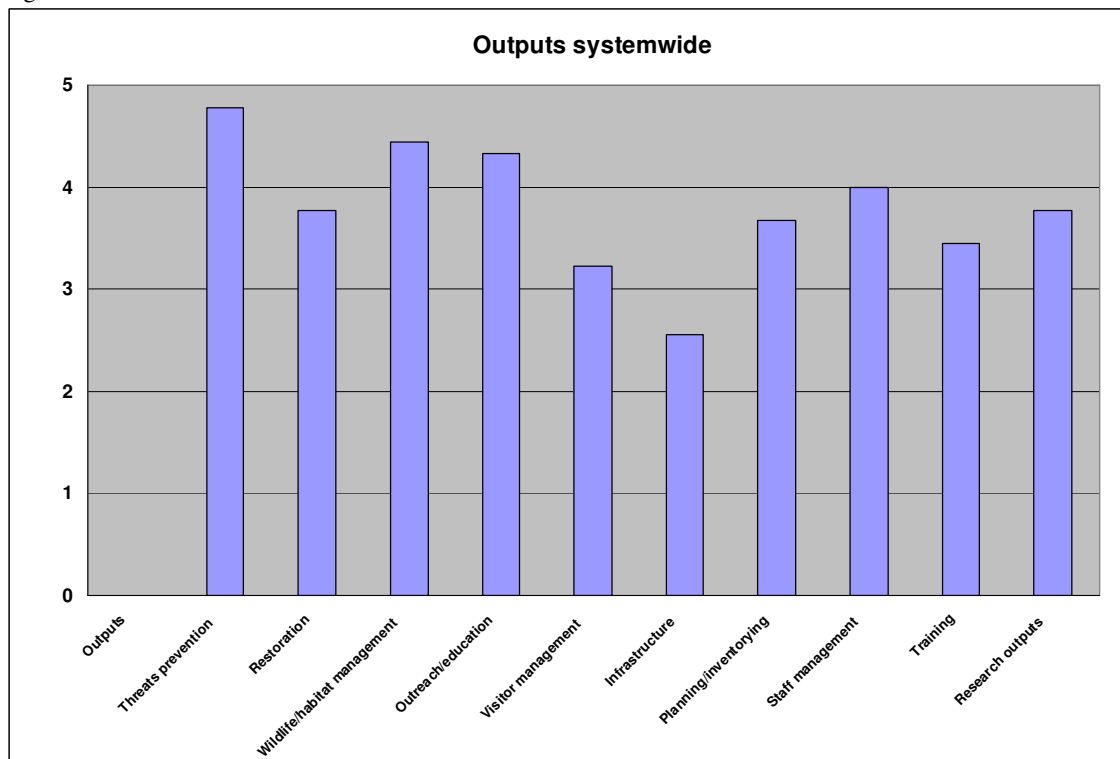
Does not exist research of key social issues focused on social and cultural uses of resources with possibility of socio-economic development.

National park employees have only average level of access to recent scientific research and advice. Access to information and results of scientific research conducted outside of governmental environmental agencies is very poor.

**Outputs**

Management outputs are specific products and services accomplished by national parks staff, volunteers and community members. Outputs are assessed in question 16 of the assessment questionnaire.

Figure 23



Average level of outputs was evaluated relatively high. It is possible that results are slightly overrated, which could be caused by inaccurate interpretation of questions in the Questionnaire

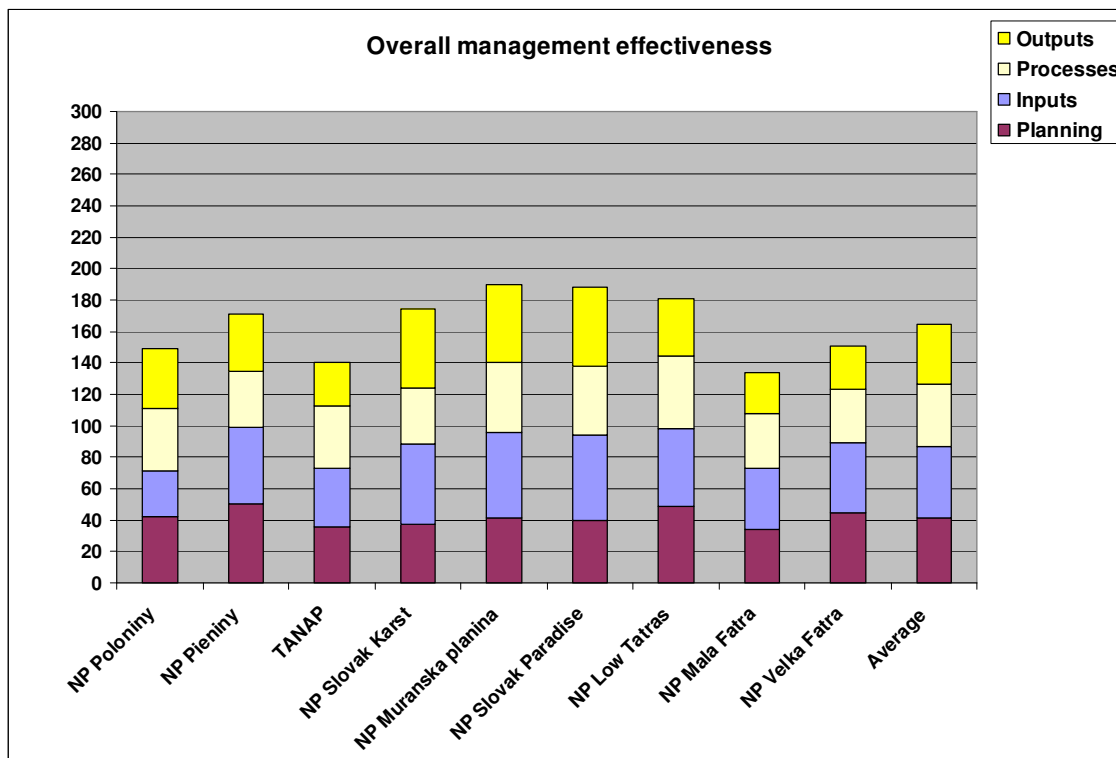
Analysis of outputs are analysis of answers whether there were, in the last 2 years, in management plan included specific tasks regarding threats and pressures, which would have been in line with objectives of protected area. Note, that positive answers do not necessary mean that these tasks were actually carried out.

Results shown in Figure 23 could be interpreted that administrations of the national parks have mostly have included tasks from specified areas in their management plan.

### *Management effectiveness*

Comparison of management effectiveness in individual national parks is shown in Figure 24. It is apparent that highest score have been achieved in NP Muranska Planina and NP Slovak Paradise.

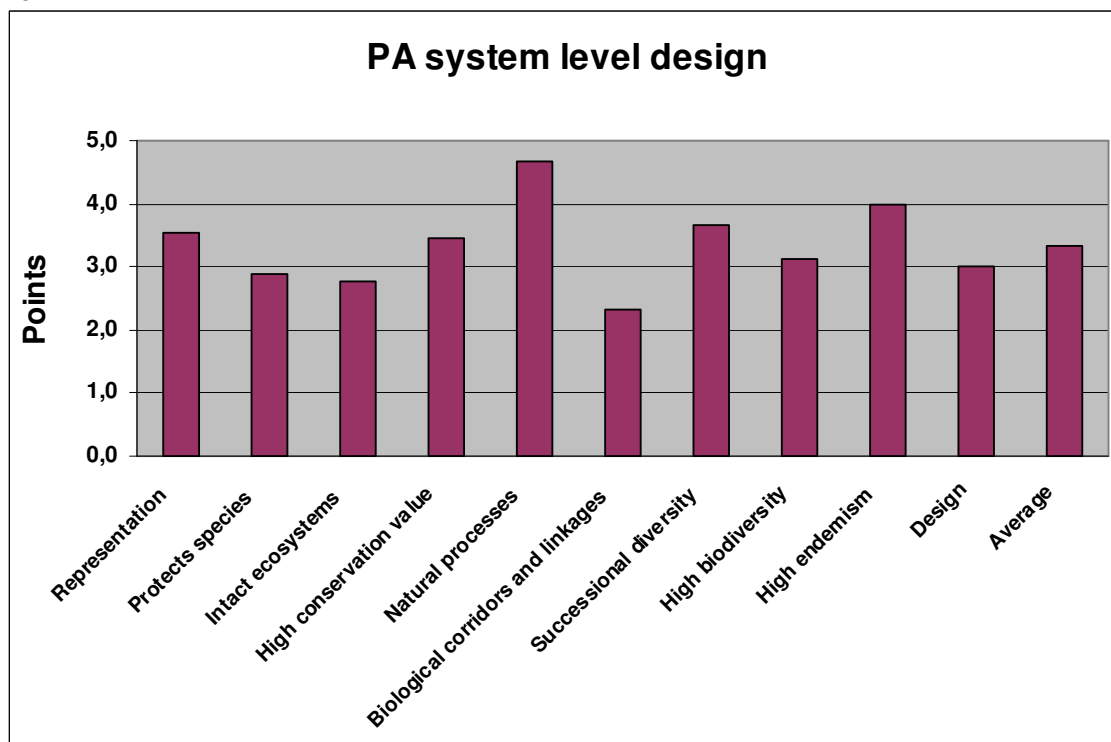
Figure 24



## Protected Areas System

In the appraisal questionnaire were also included questions regarding Protected Areas System as a whole, its legislation and environmental policies (questions no 17 – 19). It would be possible to use the results of these analyses as a basis for revision of environmental policies, new strategies and conception of the protected areas.

Figure 25



From the results, it is apparent that existing system of Protected areas has been mostly appraised positively. Majority questions was answered mostly yes

Representatives (biodiversity) of Protected Area System (PAS) were mostly assessed as positive.

Ability of PAS to prevent extinction of vulnerable and endangered species was assessed as average.

Representations of undisturbed, exemplary and intact ecosystems with fully preserved biodiversity are average.

Protection of the areas highly represented by rare and prioritised species was mostly evaluated positively.

Most highly was evaluated contribution of PAS to sustain natural processes in the country.

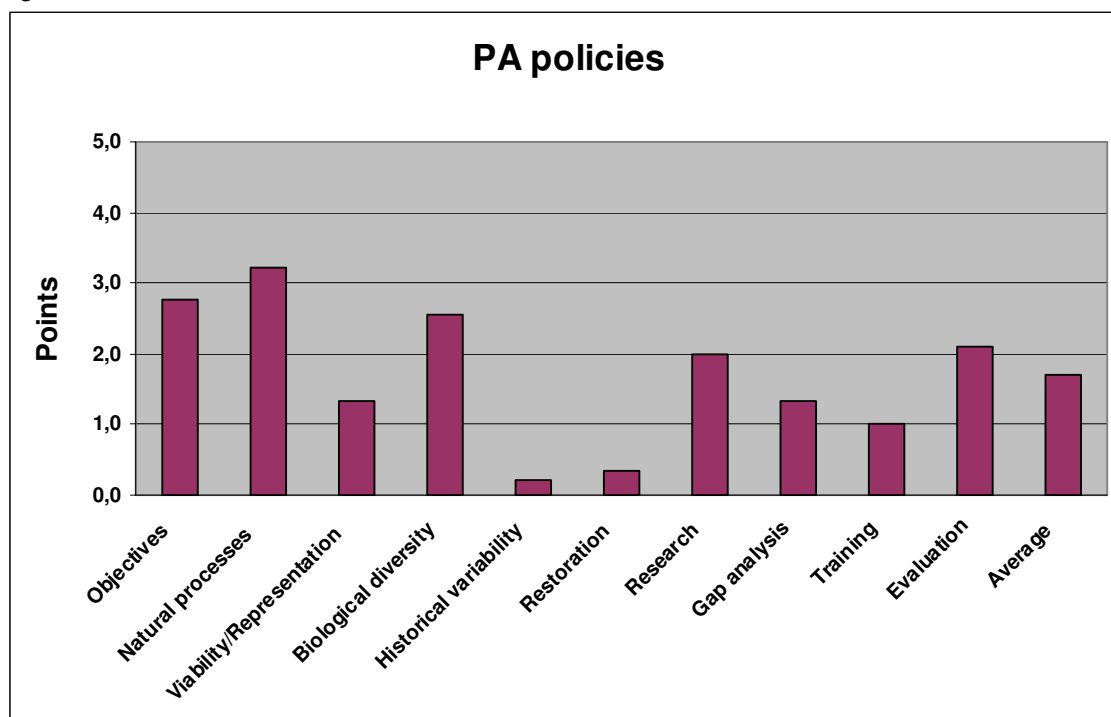
On contrary, negatively was evaluated fact that PAS in Slovakia do not fully support protection of bio corridors linking individual ecosystems.

PAS mostly adequately represents the full range of successional diversity (including early successional, mid-successional, late successional and climax stages)

Protection of the areas with high biological diversity was evaluated mostly positively.

## Protected areas policies

Figure 26



Definition of visions, goals and objectives of national protected areas system (PA) in national policies were assessed as average.

The area of protected land is considered adequate to maintain natural processes in country. There is, however a pressure from Ministry of Agriculture, landowners and forest users to revalue and decrease current size of protected areas.

The results of assessment demonstrate fact that on all levels of government institutions there is no real commitment, including financial commitment, to maintain, assess or establish new protected areas

Although there exists enough data about present species and detailed inventory of biodiversity there does not exist comprehensive assessment of historical range of variability of ecosystems. This does not allow to set strategic policies and objectives regarding representantiveness of PAS.

There are not restoration targets for under-represented or greatly diminished ecosystems

Survey of critical ecological, socio-economic issues is mostly insufficient.

Analysis of gaps and weaknesses within PAS is not periodically reviewed

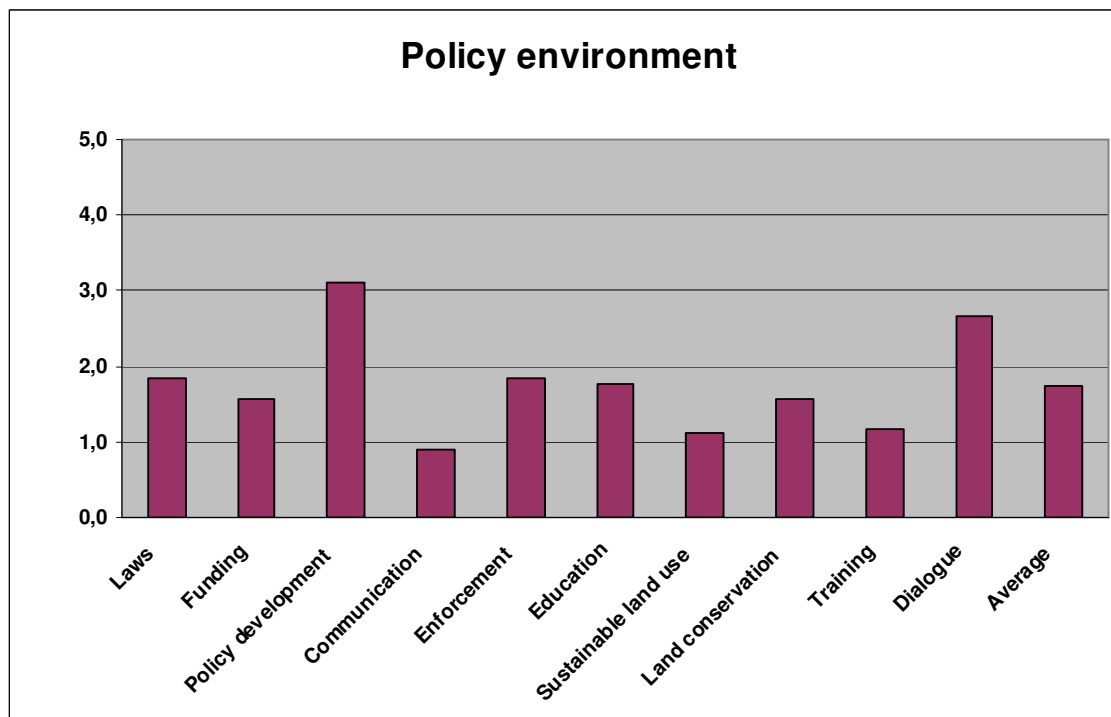
There is not effective program of seminars and continuing professional development for employees of administrations protected areas.

Protected area management effectiveness is mostly not routinely evaluated.

In general, protected areas policies regarding care, protection, sustainability of PAS was assessed as negative (mostly negative answers).

## Policy environment

Figure 27



Protected areas related laws (i.e. environment protection law, forest law, hunting law, and masterplanning law) mostly do not complement protected area management and do not promote management effectiveness. This is due to existence of conflict between individual laws.

On national level there is no commitment sufficiently finance and effectively manage protected areas.

Environmental protections goals are in majority cases incorporated into strategic documents and part of decision-making processes, which could potentially have negative impact on environment.

Between government bodies, which are competent for protection and natural resources management does not exist effective communication. This is illustrated by relations between Ministry of Environment of SR and Ministry of Agriculture of SR and by relationships between administrations of national parks and forest state companies.

Implementing of protected areas laws is mostly insufficient and does not allow for detection and addressing of illegal activities.

National policies, which are promoting widespread environmental education at all levels, are insufficient.

Implementing of sustainable land management and natural resources in national strategies and policies was assessed as mostly negative

Insufficient implementing of tools promoting natural resources protection (tax incentives, certification)

Inadequate or practically non-existing system of environmental training for governmental employees at all levels

National policies fostering dialog with civic and non-governmental environmental organisations (NGO) were assessed as average

Environmental policies were in general assessed negatively

## **Recommendations**

Based on the findings of assessment are identified main strategic recommendations to improve management effectiveness of national parks and system of protected areas in Slovakia

### ***Recommendations for improvement of management of national parks***

1. Address and resolve issues of administration of state land in national parks. Administrations of national parks should hold full competence and responsibility for natural resource management
2. Elaborate and implement tools for improvement of quality communication with local communities, landowners and other groups. To create mechanisms for involvement of these groups in decision-making processes on the level of the national parks (citizen panels, advisory groups) and procedures for fair and effective resolution of disputes based on discussions and agreeing of terms between involved parties. To secure adequacy of human and financial resources for these activities.
3. Develop management plans and zoning for all national parks and to ensure that analysis of pressures and threats are base for critical management activities. As a standard for management plans should serve international program IUCN for category National Park
4. Create favourable environment for long-term financial security so administrations of national parks could dispose with sufficient financial resources to enable them conduct critical management activities.
5. Improve system of human resources planning and system of continuous professional development of employees. Ensure the level of staffing is sufficient to conduct critical management activities and implement plans for human resource development. Ensure adequate valuation and appropriate working conditions for employees of the national parks
6. Improve system of research and monitoring in national parks. Also, focus research on options of socio-economic development in national parks without environmental impact or degradation.

### ***Recommendations regarding protection areas system policies***

1. To create and implement functional system, which would compensate user restrictions (buying, leasing, exchange of land, compensation for restriction, supporting government policies) of private landowners, which are due to nature protection.
2. Remove conflicts in legislation regarding protected areas (mainly conflicts between forest law and nature and country protection law) and improve implementation and enforcing of law to reduce illegal activities in protected areas.
3. Improve communication and cooperation between government institutions. Especially between Ministry of Agriculture of SR and Ministry of Environment of SR and between administrations of protected areas and state forest enterprises.
4. Develop analysis of weaknesses of protected areas system, historical variability in presence of specific ecosystems and set targets relating to representativeness of protected areas system. Elaborate restoration plans for underrepresented or diminished ecosystems. Establish and preserve biocorridors of protected areas system in Slovakia.
5. Promote strategies of sustainable management and protection of natural resources on level of national policies and strategies.
6. Elaborate and implement system of environmental education and training at all national levels, including education of governmental employees.