



Slovak Environmental Agency
Banská Bystrica

**Tourism and its Impact on the Environment
in the Slovak Republic 2009**

Indicator Report



2010

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Foreword

Report *Tourism and its Environmental Impact in the Slovak Republic as of 2009* is one of task outcomes listed in main task program of the Slovak Environmental Agency and Ministry of Environment of the Slovak Republic that is titled as *Assess Effects of Selected Sectors in Economic Activities on Environment and Implementation of Environmental Aspects into Sectoral Policies*. This has been already the third report. The first report was completed in 2005.

Within the task in 2005, sets of indicators and indicative sectors 'reports were completed for agriculture, forestry, transportation, energy, industry, and tourism. The reports, in full, assess a correlation between economical sector and environment through environmental indicators and are focused on key questions and issues. Document was submitted for comments within relevant resort, other resorts, and at routine daily meeting of Ministry of the Environment. Further work procedure was approved and adopted at the daily routine meeting. The Slovak Environmental Agency was instructed to proceed in the assessment through updating of indicators database in a year interval and summary sectoral reports in two-year intervals. At the same time, an obligation to publicize the indicators and reports on the webpage was laid.

Summary

What is a current state and development of tourism in the Slovak Republic?

Due to the nature potential and the potential created by a human, tourism in Slovakia has got a chance to assume a strategic position in the national economy. On the other hand tourism in Slovakia has not been formed to be an economic sector in the institutional sense, it lacks relevant legislation, institutional organisation, operating organisation structure in regions, stable scientific research base, comprehensive statistics, greater financial support for state promotion and marketing. As no Tourism Satellite Accounts were created up to the present, influence of the tourism enterprises and related sectors performances has been immeasurable in Slovakia so far.

Tourism trends

- There are 9 national parks located in the Slovak Republic territory out of the most outstanding protected national areas creating potential for tourism development – Tatra National Park, Pieniny National Park, Low Tatras National Park, Malá Fatra National Park, Veľká Fatra National Park, Muránska planina National Park, Slovak Paradise national Park, Slovak Karst National Park, Poloniny National Park and 14 protected landscape areas.
(Indicator [Protected landscape areas](#))
- The capital City of Bratislava, Banská Bystrica, Banská Štiavnica, Bardejov, Kežmarok, Košice, Kremnica, Levoča, Nitra, Prešov, Spišská Kapitula, Poprad – Spišská Sobota, Trenčín, Trnava and Žilina can be included amongst the most outstanding town monument reserves making important tourists destinations. There are 10 monument reserves of folk architecture - Brhlovce, Čičmany, Osturňa, Plavecký Peter, Podbiel, Sebechleby, Špania Dolina, Veľké Leváre, Vlkolínec and Ždiar and 88 monument zones also situated in the Slovak Republic territory.
(Indicator [Cultural and historical heritage](#))
- There are up to 1300 mineral springs in Slovakia being used as medicinal ones as well as high-quality table water. Springs with extraordinary healing effects are used as a base for 23 spa resorts where thousands of domestic and foreign guests find their conditions improvement or even complete recovery. They focus mainly on diseases of locomotive and circulatory systems, metabolism, air passages, nervous system and others.
(Indicator [Natural healing resources and climatic conditions suitable for medicinal therapies](#))
- In terms of environmental quality approximately two thirds of the Slovak Republic territory has got suitable location conditions for recreation and tourism (environment of the I. and II. Environmental Quality Degree – high quality environment i.e. suitable) whilst other areas also have got some conditions for selected forms of tourism. On the other hand up to 66,02% of its inhabitants live in environment of the III., IV. and V. Environmental Quality Degree (slightly polluted environment, polluted environment and heavily polluted environment) representing significant aspect of the tourism demand and driving force.
(Indicator [Environmental conditions](#))
- Activities in compliance with sustainable development requirements dominate amongst motives of foreign tourists in the Slovak Republic, however considerable problem is high, over the period of 2003-2005 even remarkably growing, over the period of 2005-2007 slightly falling, in 2008 again growing number of transit tourists, bringing small economic contributions and negative environmental impacts.
(Indicator [Motives of foreign tourists](#))
- Strongly dominant motives for domestic tourism holidays were stays in mountains and at watersides. Especially in cases of stays in mountains in terms of environment it concerns activities potentially risky for protected natural areas and living environment as a whole by means of unguarded unrestrained development and absence of environmental management.
(Indicator [Motives for a domestic tourism holiday stay](#))
- The structure of foreign tourists by the length of their stay is not developing favourably, on one hand, a proportion of transit tourists was growing over the period of 2003-2008 and on

the contrary a proportion of the short term and mainly long term tourists was falling. A group of foreign tourists that do not use accommodation facilities (transit and one day stay non-transit) continuously represent over a half up to three fifth.

(Indicator [Types of foreign tourists](#))

- From the economic and social points of view, domestic tourists' short-term and holiday stays stagnation is a negative phenomenon in particular. Participation of the Slovak Republic population in domestic tourism had a decreasing trend till the end of 2000. In 2004 a number of one-day trips as well as short-term and holiday stays increased as compared to 2000.

(Indicator [Participation of the Slovak republic inhabitant for a domestic and outbound holiday stay](#))

- Average expenses of a Slovak inhabitant on domestic holidays are growing however in average they are still up to three times lower than holiday expenses abroad.

(Indicator [Average expenses of the Slovak republic inhabitant for a domestic and outbound holiday stay](#))

- Households' financial expenses for recreation or culture over the period of 1998-2008, except the expenses spent in 2003, were continuously growing when financially expressed. However in 2009 a significant drop of such financial expenses occurred. On contrary, in case of households' financial expenses for hotels and restaurants, they were continuously growing over the period of 1999 – 2003, however in 2004 a significant drop occurred, over the 2005-2007 it was growing again, in 2008 on the contrary it was slightly falling and in 2009 it was significantly growing again.

(Indicator [Households expenses on tourism/travelling](#))

- Despite of fluctuating statistical data, foreign exchange earnings from active inbound tourism (AIT) was growing between 1997 – 2002, on the contrary over the period of 2002 – 2004 it was falling due to the previous VAT rate increase (from 14 to 19%). Over the period of 2005 – 2008 very significant growths of earnings and tourism balance of payments as well as the Tourism GDP and export of goods and services proportion have occurred again. On the contrary in 2009 a significant drop of earnings and tourism balance of payments occurred whilst at the same time a significant growth of tourism GDP and export of goods and services proportion.

(Indicator [Earnings, expenses and proportion of the tourism GDP and exports](#))

- Increasing number of accommodation facilities and their bed capacities can be rated positively, however despite of a significant increase of the bed quantity over the period of 2006 – 2009, we are still behind the European Union and neighbouring countries average regarding values of this indicator.

(Indicator [Capacities of accommodation facilities](#))

- More than two thirds of capacities of accommodation facilities in The Žilina Region is concentrated in the territory of the Liptovský Mikuláš, Ružomberok, Martin and Žilina districts, more than half capacities of accommodation facilities in the Prešov Region is concentrated in the territory of the Poprad district and more than a third of capacities of accommodation facilities in the Banská Bystrica Region is concentrated in the territory of Brezno and Banská Bystrica a districts.

(Indicator [Tourism intensity – number of beds/inhabitant](#))

- Over the period of 2005-2007 Tourism projects financed by the Structural European Union Funds and co-financed by the Slovak Republic state budget resources took over the leading role. In 2006 a significant increase of the state budget financial resources volume to the contrary in 2007 a slight decrease of these financial resources volume occurred to co-finance these projects as compared to the initial year 2005. In 2008 again a very significant increase of the state budget financial resources volume to the contrary in 2009 a significant decrease of these financial resources volume occurred to co-finance these projects as compared to the initial year 2005.

(Indicator [Domestic financial assistance to tourism](#))

- Over the period of 2005-2007 Tourism projects financed by the Structural European Union Funds and co-financed by the Slovak Republic state budget resources entirely took over the leading role. In 2006 at the same time a significant, more than 8 time higher, increase of the financial resources volume from the European Regional Development Fund occurred as compared to the initial year 2005 and continuing these financial resources volume to slightly grow also within 2007. In 2008 a very significant increase of the financial resources volume

has occurred as compared to 2007 and above all to the initial year 2005.
(Indicator [Foreign financial assistance to tourism](#))

What are environmental impacts from tourism in the Slovak Republic?

In terms of the national economy a significant fact is, that as for raw materials and substances, tourism is a low demanding sector, which is especially important for such a demanding country on raw materials import like Slovakia. Tourism attendance intensity in the Slovak Republic conditions is not evenly distributed area-wise, whilst negative impacts of tourists increased concentration on the national parks territories become a significant problem.

Water

- Compared with other sectors of economic activity, it is not possible to quote data of total water consumption and total quantities of wastewater production, treatment and subsequent discharge. Tourism as a sector of economic activity is neither highly demanding on water consumption and equally nor producing high wastewater quantities. Water consumption demands and wastewater production in the tourism sector or in individual tourism regions are usually characterized by considerable differences between high tourist season (summer time in case of recreation and tourism resorts at watersides or winter time in case of ski resorts situated in mountain regions) and off season time and considerable demands are put on water resources management, drinking water supply and waste water management (absence of public sewerage and waste water treatment plants in selected recreation and tourism resorts) mainly at local and regional level.
- Recreation water quality at water dams and lakes mostly meets requirements; situation of the infrastructure level in some locations is unsatisfactory.
(Indicator [Water quality in lakes and water dams used for tourism](#))

Soil

- Due to their dimensions, Pieniny National Park, Muránska planina National Park and Slovak Paradise National Park are the most fragmented territories in terms of density of cross-country skiing paths, touristic marked paths and marked cycle paths density.
(Indicator [Number of locations for so called active sports beyond borders of village built-up areas on territories of the national parks](#))
- Critical soil erosion appeared on the touristic marked paths at territories of Low Tatra National Park (considerable erosion increase over the period of 2006 – 2009), Malá Fatra National Park (considerable erosion increase over the period of 2002 – 2003) and Muránska Planina National Park (considerable erosion increase over the period of 2004 – 2005). Over the period of 2004 – 2008 considerable increase of touristic marked paths erosion appeared also at Tatra National Park territory. On the contrary in 2009 considerable or slight decrease of touristic marked paths erosion appeared at Pieniny National Park or Veľká Fatra National Park territories.
(Indicator [Soil erosion at marked hiking paths and marked cycle paths at territories of the national parks](#))

Air

- Delimited sections of the I. and II. class roads with dominant tourism transport, where traffic count is being carried out, are situated on the Tatra National Park territory only and does not cover all sections of roads with dominant tourist transport routed to a number of frequented ski resorts (Jasná, Srdiečko, Vrátna etc.) located at territories of the respective national parks.
(Indicator [Intensity of tourism traffic on the national parks territories](#))
- Due to missing methodology and content as well as relevant data absence it is not possible to quantify in satisfactory manner a degree of tourism and transport impacts on air pollution at the local, regional or Slovak national levels.

Biota

- Area-wise distribution of accommodation facilities significantly territorially overlaps with the territory of the greatest concentration of natural tourism location factors (national parks, protected landscape areas) within the Slovak Republic, area-wise mainly covering territories of the Žilina, Prešov and Banská Bystrica Regions (compact unbroken territories of High, West and Low Tatras Regions, Regions of Veľká and Malá Fatra with adjacent areas of Popradská, Liptovská and Turčianska Basins as well as Horehronské Podolie).
(Indicator [Tourism density – number of beds/km²](#))
- Despite of considerable variability of statistical data a number of overnight stays has been constantly stagnating, with alternation of periods of long-term slight growths and on the contrary short-term significant drops. Such a significant drop of the number of overnight stays (decrease of nearly 17%) occurred just in 2009 as compared to the long-term growth phase over the period of 2005 – 2008. However mostly over the period of 1999 – 2008, the average number of overnight stays was continuously decreasing pointing out to an attraction degree of a tourism destination as well as infrastructure development level having an impact on the length of carried out stays. On the contrary in 2009 a very significant growth of values of this indicator occurred (an increase up to 32%).
(Indicator [Accommodation facilities performances](#))
- Over the period of 2001 – 2007 an increase of a number of locations for mountain tourism activities at the national parks territories outside of borders of village built-up areas and particularly an increase of the lengths of cross-country skiing paths, touristic marked paths and marked cycle paths occurred.
(Indicator [Number of locations for so called active sports beyond borders of village built-up areas on territories of the parks](#))
- The highest rate of protected small-scale areas endangered by tourism activities impact appear at the territories of Tatra National Park, Low Tatras NP /National Park/, Malá Fatra NP, Pieniny NP and Slovak Paradise NP as well as Dunajské luhy PLA /Protected Landscape Area/, Malé Karpaty PLA, Strážovské vrchy PLA, Poľana PLA, Cerová vrchovina PLA and Vihorlat PLA.
(Indicator [Protected small-scale areas endangered by tourism activities impacts at territories of the national parks and protected landscape areas](#))
- Two enterprises only, operating within the tourism sector, have obtained a certificate of the Environmental Management System according to ISO 14001 so far, i.e. Spa Dudince, /Kúpele Dudince, a. s./, Dudince and Thermal swimming pools Podhájska /Termálne kúpalisko Podhájska, s. r. o. /
(Indicator [Environmental certifications of tourism enterprises nad eco symbols for tourist destinations](#))
- Although area-wise all categories of protected areas take only approximately 18% of the SR surface in total, 60 – 80% of assessed interventions in nature and landscape that require approval of the respective body of nature protection (especially territories of TANAP /Tatra National park/, Low Tatras NP, Slovak Paradise NP and Malá Fatra NP) fall to them.
(Indicator [Number of interventions in nature and landscape and number of assessed interventions in terms of environmental impacts](#))

Has been environmental efficiency of tourism improving in the Slovak Republic?

Due to the fact that there are neither data of tourism material and energy demandingness nor data of environmental impacts of tourism available for longer time period, it is not possible to evaluate environmental efficiency of tourism in a relevant and full-value manner. The economic development of tourism in relation to the environmental efficiency in the Slovak republic conditions was not evaluated so far in any strategic nor conceptual sector documents.

- When comparing a level of gross value added in the hotel and restaurant services sector with

a number of assessed interventions in nature and landscape, partially unfavourable development over the period of 2003 – 2005 can be stated, as an increase the both indicators occurred. On the contrary a positive turnaround of the given trend occurred over the period of 2005 – 2007. In 2008, considerably positive development arrived, when a considerable increase of gross value added in the hotel and restaurant services sector and a slight decrease of a number of assessed interventions in nature and landscape occurred. On the contrary in 2009, considerably negative development occurred showing a slight decrease of gross value added in the hotel and restaurant services sector and a very significant increase of assessed interventions in nature and landscape.

(Indicator [Environmental efficiency of tourism with respect to a number of interventions in nature and landscape](#))

- When comparing a level of foreign currency earnings from the active inbound tourism and waste production in the hotel and restaurant services sector, favourable development could have been stated since 2000, when except 2007, a decrease of waster production and except over the period of 2002 – 2004 a very slight growing trend of earnings from active unbound tourism occurred.

(Indicator [Environmental efficiency of tourism with respect to waste production in Accommodation and Food Services Section](#))

1. Introduction

Sector Indicators Report **Tourism and its Impact on Environment in the Slovak Republic as of 2009** is a third report and it is focusing on evaluation of environmental impact of the tourism as one of the most important economic sectors in Slovakia, and environmental aspects, which are in the process of being implemented in the tourism policy.

Integration of environmental policy into sectoral policies commenced at the European Council Summit in Cardiff. It represents an all-European process, in which environmental policy purposes and goals are reflected in the sectoral policies and which aims to provide a permanently sustainable development.

Indicators sets – measurable indicators that are evaluated through **sectoral reports** are an effective tool to assess integration of the environmental aspects into the tourism policy.

Assessment of the impact of the tourism sector on the environment respects a creating and evaluating process of the indicators, which is ensured by activities of European Environment Agency (EEA), Organization for Economic Co-operation and Development (OECD), and Statistical Office of the European Commission (EURO STAT) and development of sectoral reports at the European level.

A purpose of such formulated report for a sector of tourism in Slovakia is to gain:

- Basic document to identify the impact of the tourism on the environment;
- Grounds to assess effectiveness of environmental measures application into the tourism;
- An initial document at implementation of Cardiff process and Lisbon process under conditions of the Slovak Republic;
- An effective tool to assess strategic objectives or long-term priorities of National Sustainable Development Strategy.

Primary, the report is focused to assess a correlation between tourism and environment. It contains a marginal assessment of some economic and social factors that have a significant but indirect impact on the environment. It includes environment experts' opinions as well as opinions of experts from the tourism sector.

The report is to serve mainly politicians as an appropriate tool for decision making process, experts and pedagogues from the environment field and tourism, and finally to students and public engaged in environment matters.

2. Methodology

The sector indicators report is based on a methodology implemented by the European Environmental Agency, established in Copenhagen (EEA). It is a process; in which implementation of the environmental aspects into economic activities sectors and sector's impact on the environment is assessed through the indicators analyses. The evaluation process is focused on two stages:

1. Stage: Preparation and processing of a list of aggregated and individual indicators by D-P-S-I-R model;
2. Stage: Writing the indicators sector report.

Chain of causal indicator links according to the DPSIR model is a methodological tool for integrated assessment of the environment. Within individual chain links, the aggregated and individual indicators are defined as following:

- **Driving forces (D)** – they are starting mechanisms of processes in a society and they initiate
- **Pressure (P)** with an negative impact on the environment (contamination, depletion of mineral sources) or a positive impact, which is an immediate cause of changes in the
- **State of the environment (S)**. Deterioration of the environment's state - its elements usually cause a negative
- **impact (I)** to human health, biodiversity, functions of eco-systems, and it logically leads to formulating of measures and tools concentrated on elimination or remedy of environmental damages in the last chain link- and it is
- **Response (R)**

The analyzed individual tourism-environmental indicators of the Slovak Republic in the D-P-S-I-R structure are in detail available at the web page. It includes description of the indicator, trend assessment, and identified political objectives in relation to indicator, international comparison, and reference to topics.

The set of environmental indicators, arranged by D-P-S-I-R model, serves as a theoretical base for preparation of **indicators sector report**. The main priority of the report is to understand **causal-consequential correlations** between an activity of human being and state of the environment by means of D-P-S-I-R causal chain link and in such way to offer an innovative view of the state and trend in the environment through the integrated assessment.

The indicators sector report is focused to answer four key political questions:

1. What is current status and trend of tourism in the Slovak Republic?
2. What impact does tourism have on environment in the Slovak Republic?
3. Does environmental effectiveness of the tourism in the Slovak Republic increase?
4. Do actual legislative and financial mechanisms support the implementation of environmental measures into tourism in the Slovak Republic?

The D-P-S-I-R model for the tourism is a simplified formulation of reality. There are more existing correlations and factors (e.g. social and economic), which have significant effects on the environment and they are not included within the model.

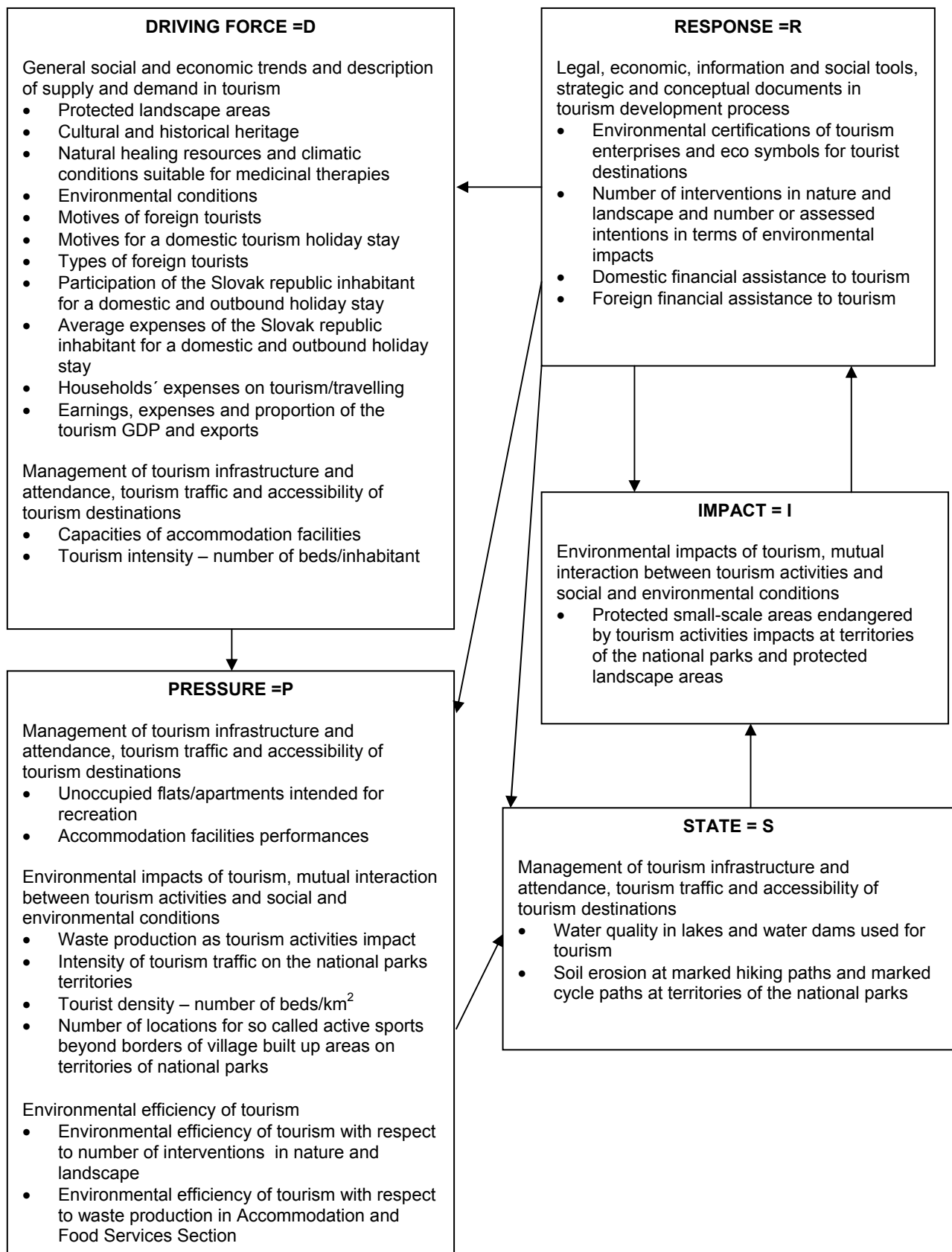
D-P-S-I-R model in tourism

Set of aggregated and individual tourism and environmental indicators in the SR according to the D-P-S-I-R model

D-P-S-I-R* position in the structure	Aggregated indicator	P. č.	Individual indicator
Driving force	General social and economic trends and description of supply and demand in tourism	1.	Protected landscape areas
		2.	Cultural and historical heritage
		3.	Natural healing resources and climatic conditions suitable for medicinal therapies
		4.	Environmental conditions
		5.	Motives of foreign tourists
		6.	Motives for a domestic tourism holiday stay
		7.	Types of foreign tourists
		8.	Participation of the Slovak republic inhabitants on domestic tourism
		9.	Average expenses of the Slovak republic inhabitant for a domestic and outbound holiday stay
		10.	Households expenses on tourism/travelling
		11.	Earnings, expenses and proportion of the tourism GDP and exports
	Management of tourism infrastructure and attendance, tourism traffic and accessibility of tourism destinations	12.	Capacities of accommodation facilities
		13.	Tourism intensity – number of beds/inhabitant
Pressure	Management of tourism infrastructure and attendance, tourism traffic and accessibility of tourism destinations	14.	Unoccupied flats/apartments intended for recreation
		15.	Accommodation facilities performances
	Environmental impacts of tourism, mutual interaction between tourism activities and social and environmental impacts	16.	Waste production as tourism activity impact
		17.	Intensity of tourism traffic on the national parks territories
		18.	Tourism density – number of beds/km²
		19.	Number of locations for so called active sports beyond borders of village built-up areas on territories of the national parks
	Environmental efficiency of tourism	20.	Environmental efficiency of tourism with respect to a number of interventions in nature and landscape
		21.	Environmental efficiency of tourism with respect to waste production in Accommodation and Food Service Section
	State	Environmental impacts of tourism, mutual interaction between tourism activities and social and environmental impacts	22.
23.			Soil erosion at touristic marked paths and marked cycle paths at territories of the national parks
Impact	Environmental impacts of tourism, mutual interaction between tourism activities and social and environmental impacts	24.	Protected small-scale areas endangered by tourism activities impacts at territories of the national parks and protected landscape areas
Response	Legal, economic, information and social tools, strategic and conceptual documents in tourism development process	25.	Environmental certifications of tourism enterprises and eco symbols for tourist destinations
		26.	Number of interventions in nature and landscape and number or assessed intentions in terms of environmental impacts
		27.	Domestic financial assistance to tourism
		28.	Foreign financial assistance to tourism

*D – driving force *P – pressure *S – state *I – impact *R – response

Causal chain for indicators according to DPSIR model in the Tourism Sector Conceptual and strategic documents



3. Implementation of environmental policy to tourism

3.1 Policy framework of environmental policy implementation into tourism in the European Union's tourism

The European Union policy in relation to tourism implements a principle that tourism is mainly in the competences of the national states. The Union may enforce activities that coordinate, support or extend the member states activities including adoption of respective legal acts. The European policy among other things deals also with support of sustainable tourism development, the European Agenda 21 for the tourism sector and the Special support measures to ensure sustainable development of the European tourism. The most significant European Union initiatives were so far:

- **Working Together for the Future of European Tourism (2011)** It contains ideas how to exploit the European tourism sector's competitive potential the best and to ensure new jobs creation.
- **Basic Orientations for the Sustainability of European Tourism (2003)**. It emphasises the need to ensure the consistency of various Community policies and measures affecting the sustainability and competitiveness of the European Union tourism.
- **European Parliament Resolution on New Prospects and New Challenges for Sustainable European Tourism (2004/2229 INI)**.
- **Council Conclusions on the Sustainability of European Tourism (8194/05, 19.4.2005)**
- **Methodological Work on Measuring Indicators of Tourism Sustainability – Part 1: Technical work and Part 2: Manual on sustainable development indicators of tourism (European Commission, 2006)**. In May 2004, EUROSTAT entrusted the Statistics Sweden to conduct a methodological study of the sustainable development in tourism resulting in the Technical Report and the Manual of 20 core set indicators for the sustainable development in tourism.
- **EDEN (European Destinations of Excellence)**. It is an initiative of the European Union focusing on excellent European touristic destinations, which economic growth is achieved in a manner that ensures social, cultural, environmental sustainability. The Commission announced the EDEN Project for the first time in 2006 and since then 26 European countries has become involved in it. Voting for Destinations of Excellence shall draw attention to diversities as well as similarities of European destinations and at the same time support social, cultural and environmental sustainable development of tourism. Projects objectives, amongst others, are to draw attention to values, diversities as well as similarities of European destinations, to overcome problems of seasonality in tourism demand, to deal with overpopulation in the centres of tourism, redistribute touristic flows towards less traditional and less known destinations and motivate other destinations to apply strategies of the sustainable development of tourism. One of the specific topics is „Tourism and Protected Areas“.
- **A renewed EU Tourism Policy: Towards a Stronger Partnership for European Tourism (COM(2006)0134)**. The main aim of this policy is to improve competitiveness of European tourism and at the same time create more and better job opportunities whilst ensuring the sustainable development of tourism.
- **Report of the Tourism Sustainability Group “Action for More Sustainable European Tourism”, February 2007**. It specified directives, which the Commission has used as the basis for outlining an Agenda for the Sustainable and Competitive European Tourism and which among other things also includes Principles for Achieving Competitive and Sustainable Tourism.
- **Announcement of the Commission of the European Communities: Agenda for Sustainable and Competitive European tourism, (Brussels, 19.10.2007 COM(2007) 621 in final wording)**. This announcement is an official launching and

approval of mid-term agenda, within which all the involved parties shall undertake necessary steps to reinforce contribution of sustainable practices aiming to facilitate European competitiveness to be the most attractive tourist destination. The European Commission shall present its evaluation of accomplished progress in 2011. The Agenda has been fulfilling a long-term commitment adopted by the European Commission and further supported by other European institutions and it has been building on the Report of the Tourism Sustainability Group and on results following out of public consultations. It is considered as important to create effective balance amongst good conditions for tourists, needs of natural and cultural environment and development of destinations and individual enterprises including their competitiveness and requiring integrated and holistic political approach, where all involved parties pursue the same objectives.

- **The European Parliament resolution of 29 November 2007 on a renewed EU tourism policy: Towards a stronger Partnership for European Tourism (2006/2129(INI))**, which assumes that due to increasing number of travels carried out, tourism is partly responsible for environmental damages and emphasises, that tourism representatives should take part in actions related to environment protection issues and in their planning. At the same time it points to the need for the new tourism policy to make European tourism sustainable in economic, social, territorial, environmental and cultural terms; accordingly endorses the specific steps to be taken by the Commission to promote the economic and social sustainability of European tourism; and applauds the Commission for taking the initiative of drawing up the Agenda for a Sustainable and Competitive European Tourism.
- **Study on the Competitiveness of the EU Tourism Industry.** Apart from other things the Study describes 6 key challenges that the EU tourism industry faces and should tackle. Development of the EU tourism sustainability is also included amongst these challenges. To tackle these challenges in an effective manner shall require actions to be implemented in the following five fields, apart from others also to ensure tourism sustainable development.

3.2 Policy framework of environmental policy implementation into tourism in the Slovak Republic

In previous term of office the initial document Strategy of Tourism Development of the SR until 2013 was approved by the Slovak Government in Resolution No. 632 of 24 August 2005. However this document neither sufficiently reflected the new social dimension of European documents on tourism, nor policy of sustainable development nor the fact that tourism is still the most important part of consumption per inhabitant in our country. From the given reason the **New Tourism Development Strategy of the Slovak Republic until 2013** was drawn up. **The part of the vision of tourism development of the Slovak Republic until 2013 is that the coexistence between the state interests in the area of nature and landscape conservation and interests in the sustainable development of tourism shall be substantially settled. The central forms of tourism, which Slovakia has got the best conditions for and which will need to be supported, developed and improved are apart from others also summer tourism and waterside holidays, whilst when building facilities for summer sports, aqua parks and thermal spas etc., it will be necessary to ensure the coexistence between the state interests in the area of nature and landscape conservation and interests in the sustainable development of tourism, spa and health tourism, where all these facilities jointly make use of advantages of higher environmental quality and winter tourism and winter sports, respecting interests of nature and landscape conservation and environment, given in respective legislation. Amongst tasks while fulfilling strategic aim were to accelerate elaborating of zoning plans and draw up the principles for tourism development in the protected territories emphasising to conserve such natural values that make the key motive for majority of tourists in Slovakia till the end of 2007.**

The State tourism policy in the Slovak Republic was drawn up in accordance with the Policy Statement of the Government of the Slovak Republic for 2006 – 2010 and in continuity with the New Tourism Development Strategy of the Slovak Republic until 2013. In continuity with the initial points stated in the Part 1 of the given document, Part 2 determines a tourism basic aim that is **to gain new markets and optimally meet requirements of domestic and foreign visitors in tourism in sustainable environment in order to ensure and enhance quality of life of local people and to ensure the greatest profit possible in the national economy.** The third part introduces **Principles, Tools and Bearers for Fulfilling the Tourism State Policy Aim**, including apart from other thing:

- **Tourism sustainable development and following out conclusion that tourism policy shall support environmentally friendly tourism forms** (rural tourism, agro-tourism, nature and waterside holidays, cycle-tourism on reinforced and marked paths, horse-riding, golfing, eco-tourism, using public transport modes etc.
- **Tourism is a mean of regional development and development of business enterprises and following out zoning plans whereas a system of large-scale protected areas creates conditions and assumptions for nature conservation of such elements that are very precious in tourism terms thus a part of its offer.** In accordance with the European standards it is necessary to accelerate adoption of a zoning plan of individual protected areas in order to ensure tourism and nature conservation symbiosis and to create transparent conditions to carry out tourism activities in natural locations.

Concept of Territorial Development in Slovakia (MŽP SR, 2001 *Ministry of Environment of the SR*) belongs amongst basic conceptual documents on the national level in sponsorship of MŽP SR *Ministry of Environment of the SR*. Conceptual principles of tourism development in the Slovak Republic are stated in the binding part approved by Decree of the Government of the Slovak Republic No 528/200 Coll. whereas it proposes that localization of services providing recreation and tourism process are to be preferably concentrated in settlements aiming to prevent illegitimate expansion of recreation structures in open-air landscape and on territories of the national parks and protected landscape areas, to adhere to a bearable ratio of nature conservation function and other functions related to recreation and tourism.

The National Strategy for Conservation of Biodiversity in Slovakia (MŽP SR, 1997 *Ministry of Environment of the SR*) was drawn up as a response to Article 6 of Convention on Biological Diversity. The document was approved by Resolution No 231/1997 of the Government of the Slovak Republic on 1 April 1997. The National Board of the Slovak Republic endorsed the document on 2 June 1997. Within **Goal 11 – Promote Ecologically Sound and Sustainable Tourism Concepts of Business Enterprising** it states that tourism and doing business in this sector is one of the most important activities in the economic, social and cultural spheres. Sustainable tourism must serve as a tool to support conservation of territories, promote ecosystem integrity and biodiversity and raise public awareness. Biodiversity has an important role to play in tourism development.

4. What is the current state and development of tourism in the SR?

Due to the nature potential and the potential created by a human tourism in Slovakia has got a chance to assume a strategic position in the national economy. However restructuring of tourism development must be carried out on the basis of targeted programme that enables optimal using of the natural resources as well as built capacities, facilities and services there provided, whereas requirements of sustainable development must be respected. On 1 July 2010 the Act No 37/2010 came into effect amending and supplementing the Act No 575/2001 Coll. on Organisation of the Activities of the Government and Organisation of the Central Public Administration, as amended. As this law comes into effect the competences of the tourism sector of the Ministry of Economy of the SR are transferred to a new state administration central body for the tourism sector i.e. Ministry of Culture and Tourism of the SR. At the same time the Slovak Agency for Tourism, an allowance organisation, is also transferred to institutional competence of the Ministry of Culture and Tourism of the SR. On 1 November the Act No 403/2010 came into effect amending and supplementing the Act No 575/2001 Coll. on Organisation of the Government and Organisation of the Central Public Administration, as amended. As this law comes into effect the competences of the tourism sector of the Ministry of Economy of the SR are transferred to a new state administration central body for tourism sector i.e. Ministry of Transport, Construction and Regional Development. At the same time the Slovak Agency for Tourism, an allowance organisation, is also transferred to institutional competence of this Ministry.

Tourism in Slovakia is not sufficiently institutionally formed to be an economic sector and above all it lacks functioning regional organisation structure, stable scientific research base and greater financial support for state promotion and marketing. Tourism is described to be a cross-sectional sector and is significantly involved in nearly all the resorts; however it lacks one location organisation. A lack of relevant legislation is being gradually supplemented. The most significant legal regulation is the Act No 91/2010 on Support of Tourism defining rights and duties of physical persons or legal entities entitled to work in tourism, conceptual documents drawing up and tourism development financing. In 2008, the Regulation No 277/2008 Coll., which sets classifying criteria for accommodation facilities at their division to categories and classes was adopted. As no Tourism Satellite Accounts were created up to the present, influence of the tourism enterprises and related sectors performance has been immeasurable in Slovakia so far. Slovak agriculture state and development has been possible to describe approximately since 1997 by means of individual indicators characterizing the main tourism trends.

Set of aggregated and individual tourism and environmental indicators relevant to characteristic of general trends in tourism

DPSIR position in the structure*	Aggregated indicator	Individual indicator
DRIVE FORCE = D	General social and economic trends and description of supply and demand in tourism	Protected landscape areas
		Cultural and historical heritage
		Natural healing resources and climatic conditions suitable for medicinal therapies
		Environmental conditions
		Motives of foreign tourists
		Motives for a domestic tourism holiday stay
		Types of foreign tourists
		Participation of the Slovak republic inhabitants for a domestic and outbound holiday stay
		Average expenses of the Slovak republic inhabitant for a domestic and outbound holiday stay
		Households expenses on tourism/travelling

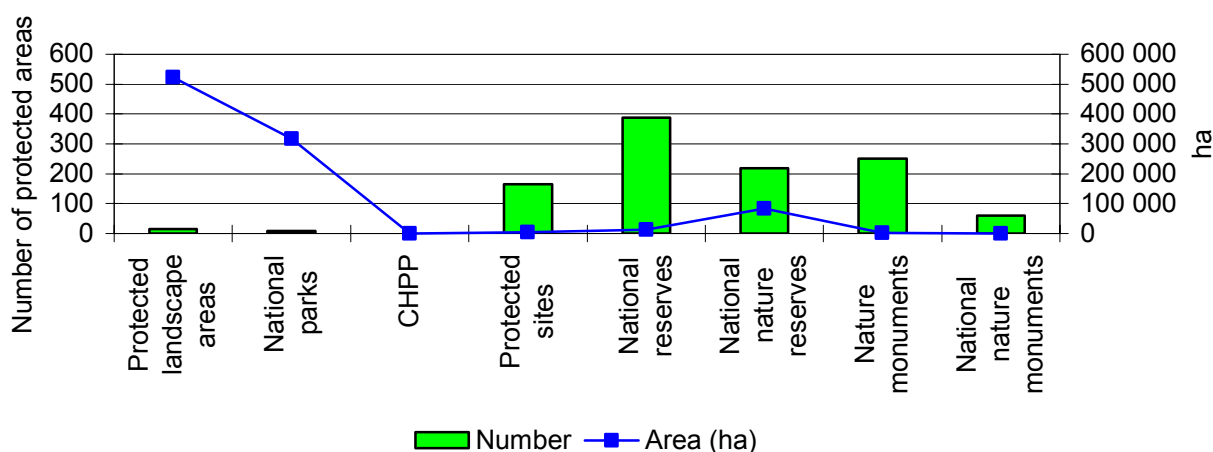
		Earnings, expenses and proportion of the tourism GDP and exports
	Management of tourism infrastructure and attendance, tourism traffic and accessibility of tourism destinations	Capacities of accommodation facilities
		Tourist intensity – number of beds/inhabitant
RESPONSE = R	Legal, economic, information and social tools, strategic and conceptual documents in tourism development process	Domestic financial assistance to tourism
		Foreign financial assistance to tourism

*D – driving force *P – pressure *S – state *I – impact *R – response

4.1. Protected landscape areas

There are 9 national parks located in the Slovak Republic territory – Tatra National Park, Pieniny National Park, Low Tatras National Park, Malá Fatra National Park, Veľká Fatra National Park, Muránska planina National Park, Slovak Paradise National Park, Slovak Karst National Park, Poloniny National Park and several protected landscape areas.

Overview of the protected areas categories in the Slovak Republic to 31.12.2009 (number, ha)

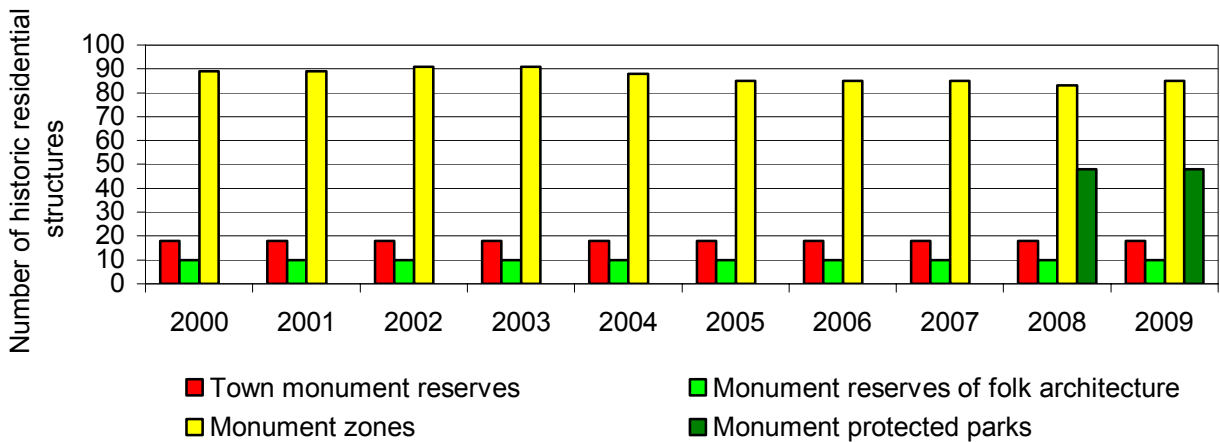


Source: ŠOP SR; Makes: SAŽP
Indicator [Protected landscape areas](#)

4.2. Cultural and historical heritage

The capital City of Bratislava, Banská Bystrica, Banská Štiavnica, Bardejov, Kežmarok, Košice, Kremnica, Levoča, Nitra, Prešov, Spišská Kapitula, Poprad – Spišská Sobota, Trenčín, Trnava and Žilina can be included amongst the most outstanding town monument reserves making important tourists destinations. There are 10 monument reserves of folk architecture - Brhlovce, Čičmany, Osturňa, Plavecký Peter, Podbiel, Sebechleby, Špania Dolina, Veľké Leváre, Vlkolínec and Ždiar and 88 monument zones also situated in the Slovak Republic territory. Number of town monuments reserves and monument reserves of folk architecture remained unchanged, only the number of monument zones was changed.

Historic residential structures in the Slovak Republic (number)



Source: PÚ SR; Makes: SAŽP
Indicator [Cultural and historical heritage](#)

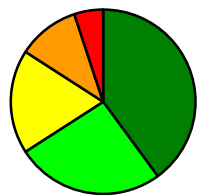
4.3. Natural healing resources and climatic conditions suitable for medicinal therapies

There are up to 1300 mineral springs in Slovakia being used for medicinal purposes as well as high-quality table water. Springs with healing effects are used as a base for 23 spa resorts. Bardejov Spa, Bojnice, Brusno, Číž, Dudince, Korytnica, Kováčová, Lúčky, Nimnica, Piešťany, Rajecké Teplice, Sklené Teplice, Sliach, Smrdáky, Trenčianske Teplice and Turčianske Teplice belong amongst balneological spas on the territory of the Slovak Republic. Ľubochňa, Lučivná, Štós, Železnô, Vyšné Ružbachy and High Tatras – villages such as Vyšné Hágy, Nová Polianka, Tatranská Polianka, Nový Smokovec, Horný Smokovec, Dolný Smokovec, Štrbské Pleso and Tatranská Kotlina belong amongst climatic spas on the territory of the Slovak Republic.

4.4. Environmental quality

In terms of environmental quality, there is a significant differentiation representing a considerable potential for tourism development. On one hand up to 65,74% of the territory of the Slovak Republic (in 2002 up to 72% of the territory) is situated in environment of the I. and II. Environmental Quality Degree (high quality environment i.e. suitable), on the other hand up to 66,02% of its inhabitants (in 2002 only 60,50 % of the inhabitants) live in environment of the III., IV. and V. Environmental Quality Degree (slightly polluted environment, polluted environment and heavily polluted environment).

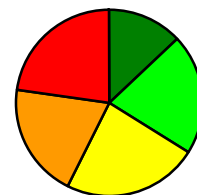
Surface area of the Slovak Republic according to the individual Environmental Quality Degrees in 2005 (%)



■ 1.degree ■ 2.degree ■ 3.degree ■ 4.degree ■ 5.degree

Source: ŠÚ SR; Makes: SAŽP
Indicator [Environmental conditions](#)

Distribution of the Slovak inhabitants according to the individual Environmental Quality Degrees in 2005 (%)



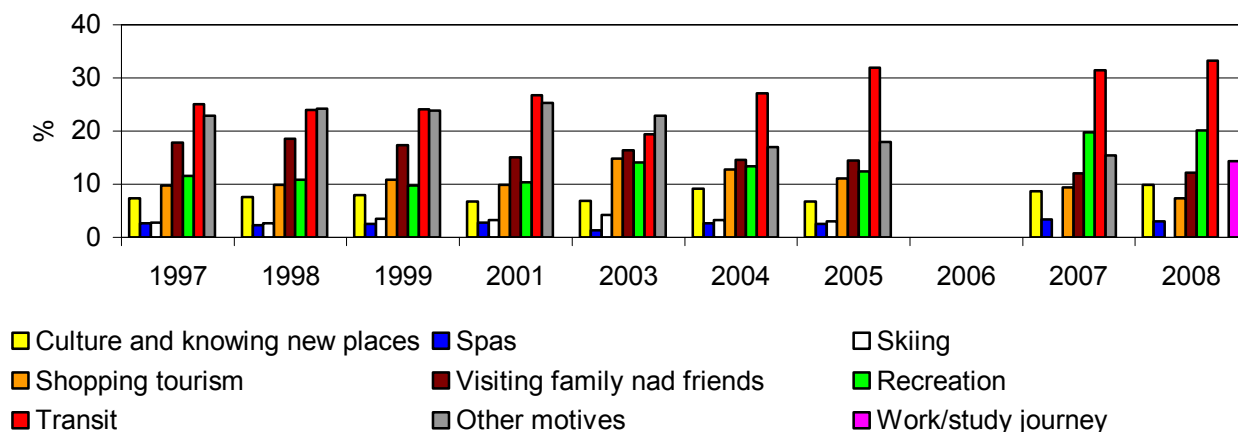
■ 1.degree ■ 2.degree ■ 3.degree ■ 4.degree ■ 5.degree

Source: ŠÚ SR; Makes: SAŽP
Indicator [Environmental conditions](#)

4.5. Motives of foreign tourists

Activities in compliance with sustainable development requirements dominate amongst motives of foreign tourists in the Slovak Republic; however considerable problem is high, over the period of 2003-2005 even remarkably growing, over the period of 2005-2007 slightly falling, in 2008 again growing number of transit tourists, bringing small economic contributions and negative environmental impacts.

Motives of foreign tourists in the Slovak Republic (%)

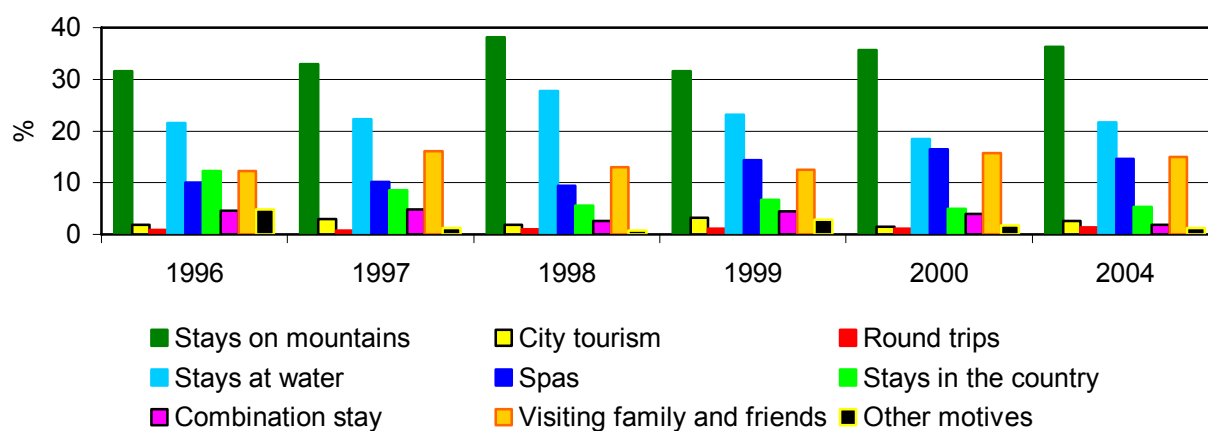


Source: MH SR, selection statistical research; Makes: SAŽP
Indicator [Motives of foreign tourists](#)

4.6. Motives for domestic tourism holidays

Activities potentially risky for protected natural areas dominated amongst domestic tourists motives. There was no survey on data about holiday activities of the Slovak inhabitants carried out over the period of 2005 – 2009. Due to mentioned reason it is not possible to provide any information about the latest trends in motives for domestic tourism holidays for that period.

Motives for domestic tourism holidays (%)



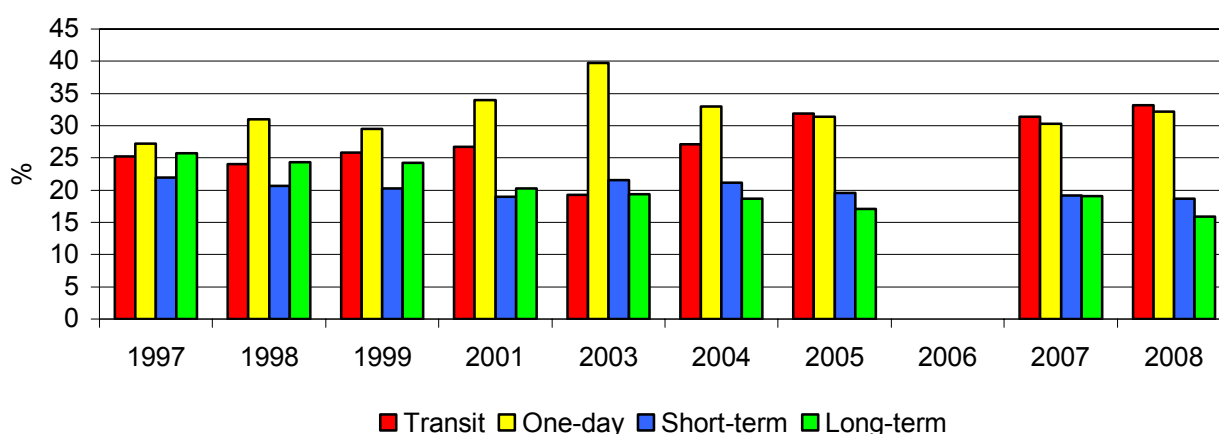
Source: MH SR, selection statistical research; Makes: SAŽP
Indicator [Motives for a domestic tourism holiday stay](#)

4.7. Types of foreign tourists

The structure of foreign tourists by the length of their stay is not developing favourably, on one hand, a proportion of transit tourists was growing over the period of 2003-2008 and on the contrary a proportion of the short-term and mainly long-term tourists was falling.

The most significant percentage proportion decrease of the long-term tourists was over the period of 1997 – 2005, representing only less than a fifth over the period of 2003 – 2008.

Types of foreign tourists (%)



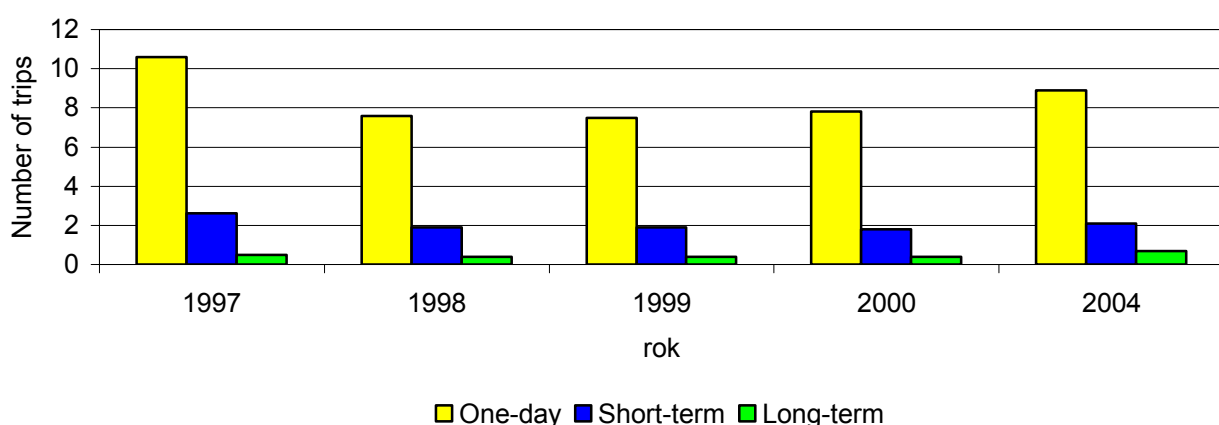
Source: MH SR, selection statistical research; Makes: SAŽP

Indicator [Types of foreign tourists](#)

4.8. Participation of the Slovak population in domestic tourism

Participation of the Slovak republic population in domestic tourism had a decreasing trend till the end of 2000, in 2004 its number increased.

Average number of the Slovak population travels for tourism purposes (number of travels per capita in absolute figures)



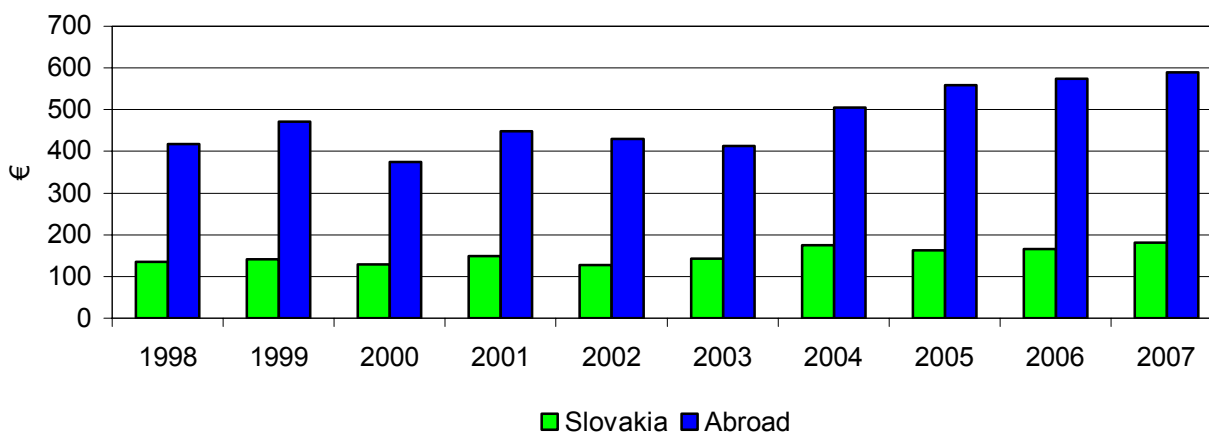
Source: MH SR, selection statistical research; Makes: SAŽP

Indicator [Participation of the Slovak republic inhabitant for a domestic and outbound holiday stay](#)

4.9. Average expenses of a Slovak inhabitant on domestic holidays and on holidays abroad

Average expenses of a Slovak inhabitant on domestic holidays was mostly growing over the period of 1998 - 2007 however in average they are still up to three times lower than holiday expenses abroad.

Abroad expenses of a Slovak inhabitant on domestic holidays and on holidays abroad (€)



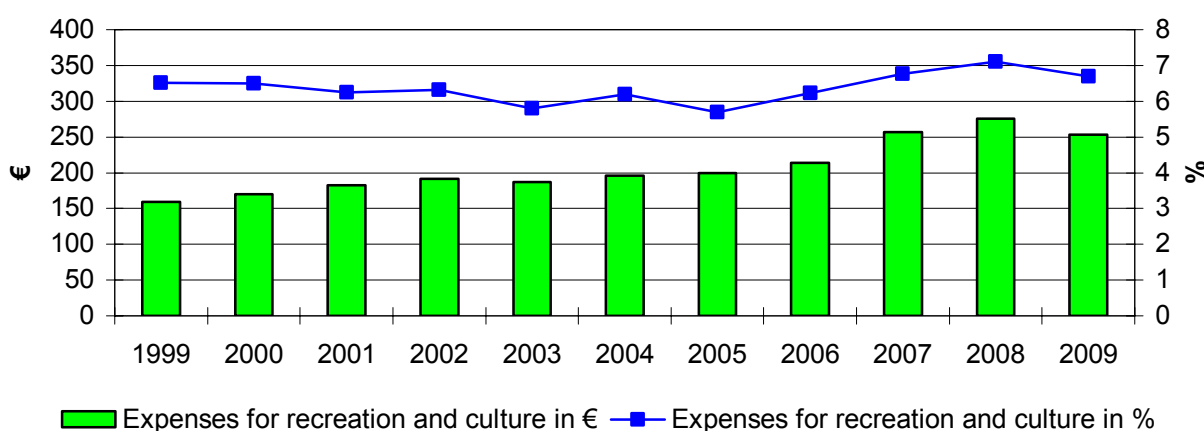
Source: MH SR, from year 2005 ŠÚ SR, selection statistical research; Makes: SAŽP

Indicator [Average expenses of the Slovak republic inhabitant for a domestic and outbound holiday stay](#)

4.10. Household expenses for tourism / travelling

Households' financial expenses for recreation or culture over the period of 1998-2008, except the expenses spent in 2003, were continuously growing when financially expressed. However in 2009 a significant drop of such financial expenses occurred. On contrary, in case of households' financial expenses for hotels and restaurants, they were continuously growing over the period of 1999 – 2003, however in 2004 a significant drop occurred, over the 2005-2007 it was growing again, in 2008 on the contrary it was slightly falling and in 2009 it was significantly growing again

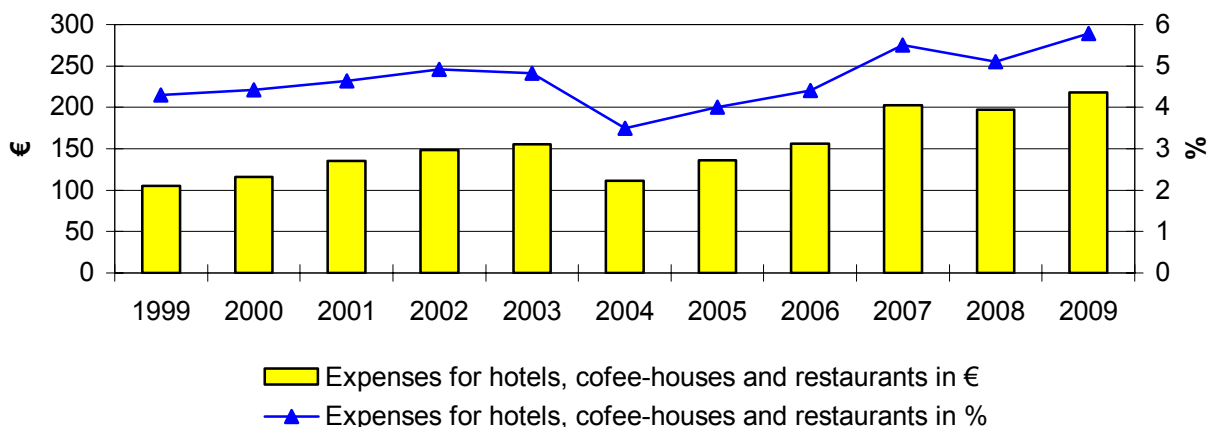
Households' financial expenses for recreation or culture, per 1 household member per year (€, %)



Source: MH SR; Makes: SAŽP

Indicator [Households expenses on tourism/travelling](#)

Households' financial expenses for hotels, coffee-houses and restaurants, per 1 household member per year (€, %)

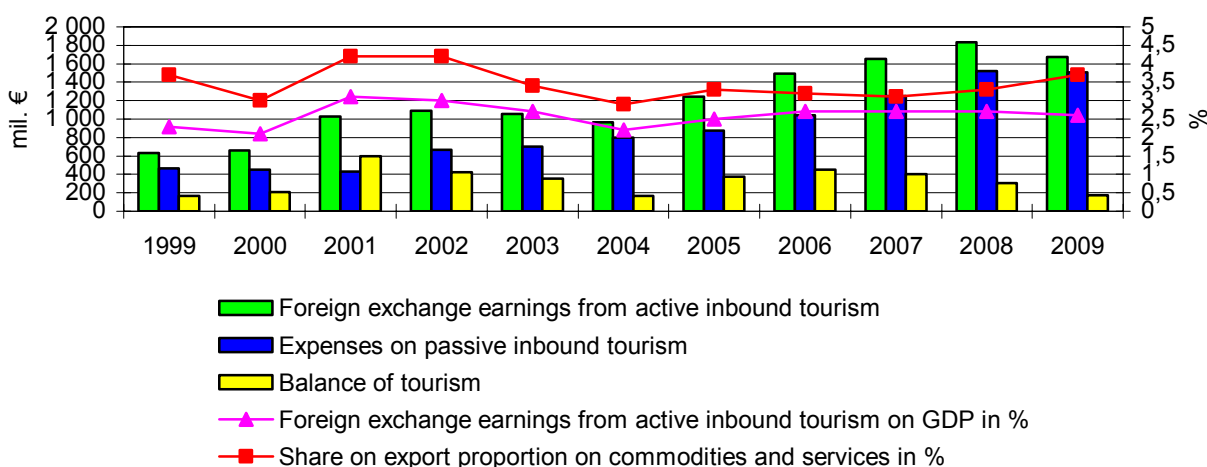


Source: MH SR; Makes: SAŽP
 Indicator [Households expenses on tourism/travelling](#)

4.11. Earnings, expenditures and proportion of tourism GDP and export

Despite of fluctuating statistical data, foreign exchange earnings from active inbound tourism (AIT) was growing over the period of 1997 – 2002, on the contrary over the period of 2002 – 2004 it was falling due to significant changes outside of this sector (strengthening of the Slovak currency exchange rate mainly against the US dollar and the Polish Zloty, the previous VAT rate increase from 14 to 19%). Over the period of 2005 – 2008, a very significant growths of earnings and tourism balance of payments as well as the Tourism GDP and export of goods and services proportion occurred again. On the contrary in 2009 a significant drop of earnings and tourism balance of payments whilst at the same time a significant growth of tourism GDP and export of goods and services proportion occurred.

Foreign exchange earnings from active inbound tourism, expenses on passive inbound tourism and tourism GDP and export proportion (mil. €, %)

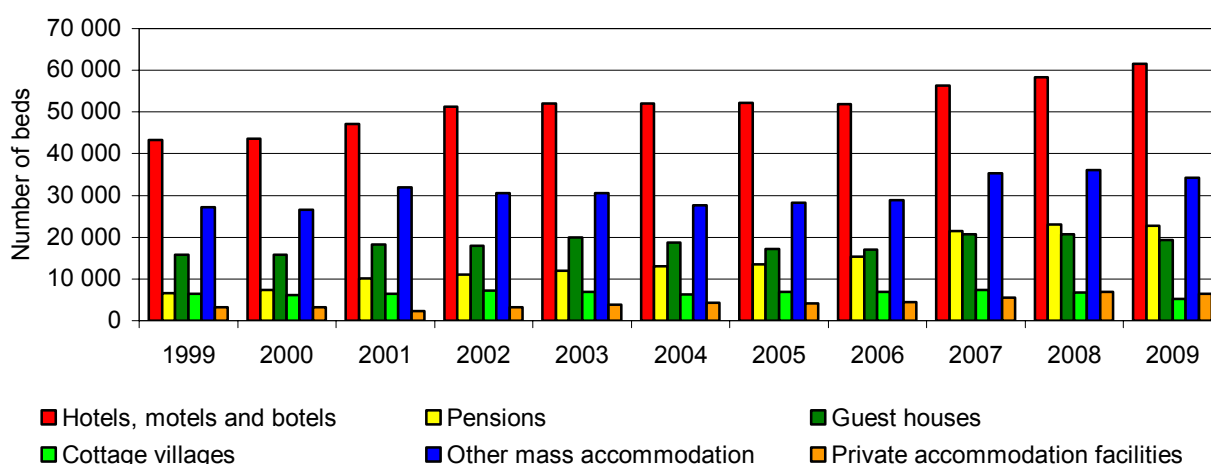


Source: ŠÚ SR; Makes: SAŽP
 Indicator [Earnings, expenses and proportion of the tourism GDP and exports](#)

4.12. Capacities of accommodation facilities

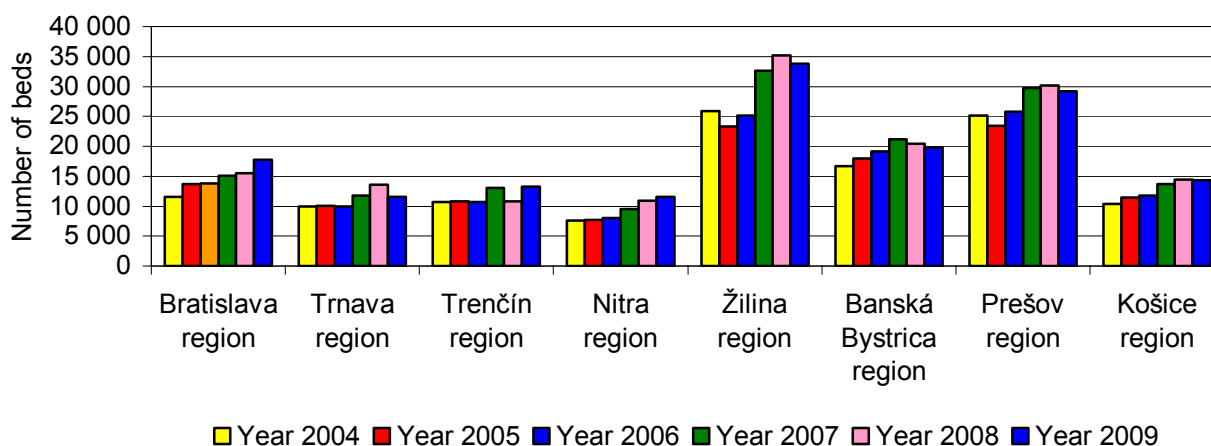
Increasing number of accommodation facilities and their bed capacities over the period of 1999 – 2003 can be rated positively, incurred mainly by increasing number of small accommodation facilities – pensions and guest-houses that are more acceptable in terms of environment. Apart from beds in pensions and cottage villages, stagnation in development of number of beds in any other categories of accommodation facilities occurred over the period of 2004 – 2006. However over the period of 2006-2008 a significant increase of number of beds in all categories of accommodation facilities occurred, mainly in pensions (an increase of 70,7 %) and private accommodation facilities (an increase of 65 %). In 2009, a slight decrease of total number of beds has occurred whilst an increase of number of beds occurred only in hotels, motels and boatels (an increase of 5,4 %) and on the contrary there was a decrease mainly in cottage villages (a decrease of 22,7 %), guest houses (a decrease of 6,8%), private accommodation facilities (a decrease of 6,2 %) and other mass accommodation (a decrease of 5,2 %).

Capacities of accommodation facilities by categories and ranks in the Slovak Republic (number of beds)



Source: ŠÚ SR; Makes: SAŽP
Indicator [Capacities of accommodation facilities](#)

Capacities of accommodation facilities by regions in the Slovak Republic (number of beds)

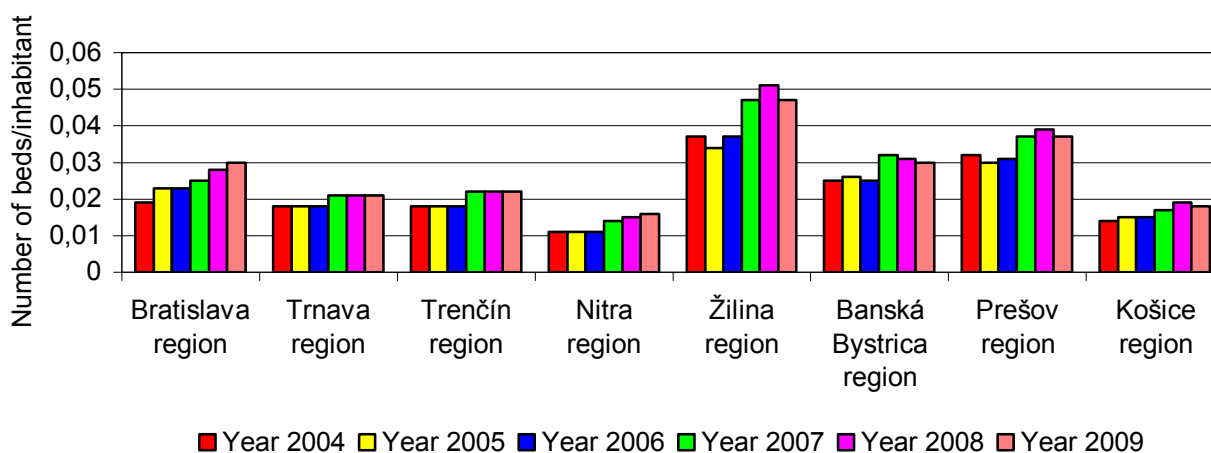


Source: ŠÚ SR; Makes: SAŽP
Indicator [Capacities of accommodation facilities](#)

4.13. Tourism intensity – number of beds /capita

Area-wise distribution of accommodation facilities significantly territorially overlaps with the territories of Žilina, Prešov and Banská Bystrica Regions. More than two thirds of capacities of accommodation facilities in the Žilina Region is concentrated in the territory of the Liptovský Mikuláš, Ružomberok, Martin and Žilina districts, more than half capacities of accommodation facilities in the Prešov Region is concentrated in the territory of the Poprad district and more than a third of capacities of accommodation facilities in the Banská Bystrica Region is concentrated in the territory of Brezno and Banská Bystrica districts. Area-wise the greatest concentration of capacities of accommodation facilities within the Slovak Republic includes compact unbroken territories of High, West and Low Tatras Regions, Regions of Veľká and Malá Fatra with adjacent areas of Popradská, Liptovská and Turčianska Basins as well as Horehronské Podolie).

Tourism intensity by the individual Slovak Regions (number of beds/inhabitant)



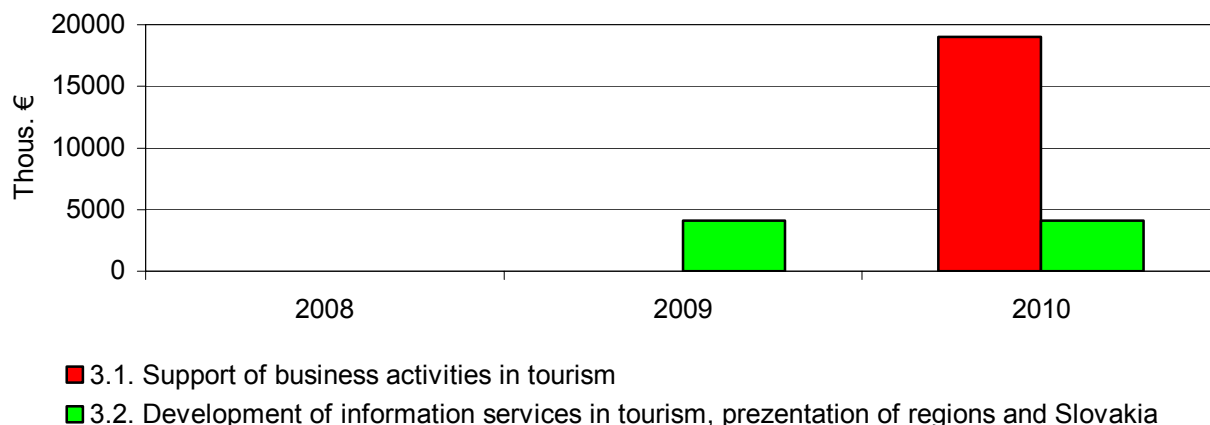
Source: ŠÚ SR; Makes: SAŽP

Indicator [Tourism intensity – number of beds/inhabitant](#)

4.14. State financial support of tourism

Over the period of 2005-2007 tourism projects financed by the Structural European Union Funds and co-financed by the Slovak Republic state budget resources took over the leading role. In 2006 a significant increase of the state budget financial resources volume to the contrary in 2007 a slight decrease of these financial resources volume have occurred to co-finance these projects as compared to the initial year 2005. In 2008 again a very significant increase of the state budget financial resources volume to the contrary in 2009 a significant decrease of these financial resources volume occurred to co-finance these projects as compared to the initial year 2005.

Financial support by the Structural European Union Funds – co-financed by the state budget (thous. €)

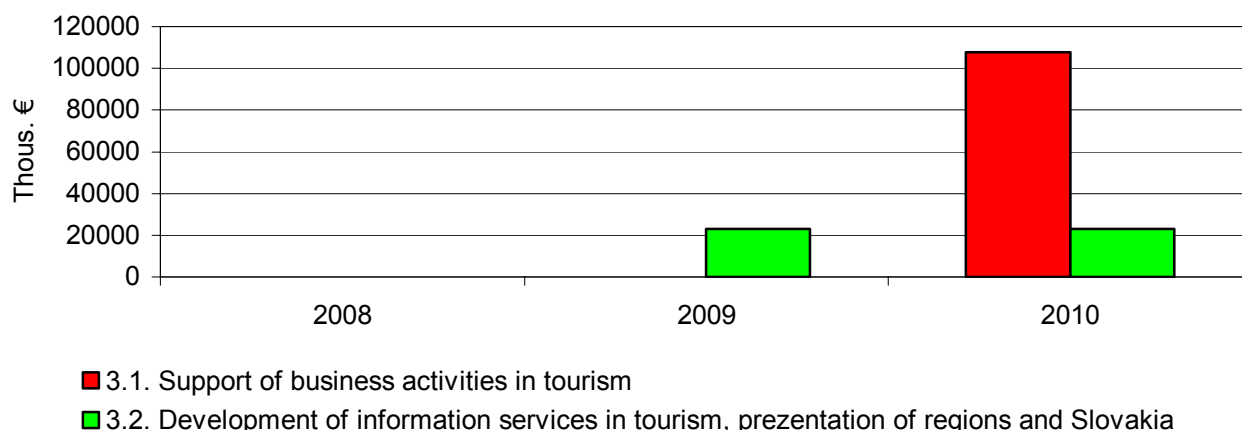


Source: MH SR; Makes: SAŽP
 Indicator [Domestic financial assistance to tourism](#)

4.15. Foreign financial support of tourism

Over the period of 2005-2007, carried out tourism projects financed by the Structural European Union Funds and co-financed by the Slovak Republic state budget resources entirely took over the leading role. In 2006, at the same time a significant, more than 8 times higher, increase of the financial resources volume from the European Regional Development Fund occurred as compared to the initial year 2005 and a slight grow of these financial resources volume continued also within 2007. In 2008, a very significant increase of the financial resources volume occurred as compared to 2007 and above all to the initial year 2005. In 2009, on the contrary a significant decrease of such financial resources volume occurred.

Financial support by the Structural European Union Funds – resources from the European Regional Development Fund (thous. €)



Source: MH SR; Makes: SAŽP
 Indicator [Foreign financial assistance to tourism](#)

5. What are environmental impacts of tourism in the Slovak Republic?

A long-term stay in high-ranked and well-preserved natural environment if possible is a decisive motive for tourists in particular – due to that reason natural values and environment conservation represent one of the most important assumptions of tourism development. In that connection cooperation between the tourism and environmental resorts continues in sphere of the national parks zoning and identification of possible discrepancies between interests of tourism and nature conservation. In terms of the national economy a significant fact is, that as for raw materials and substances, the tourism is a low demanding sector, which is especially important for such a demanding country on raw materials import like Slovakia. Tourism attendance intensity in the Slovak Republic conditions is not evenly distributed area-wise, whilst negative impacts of increased tourists' concentration on the most valuable natural locations and territories become a significant problem.

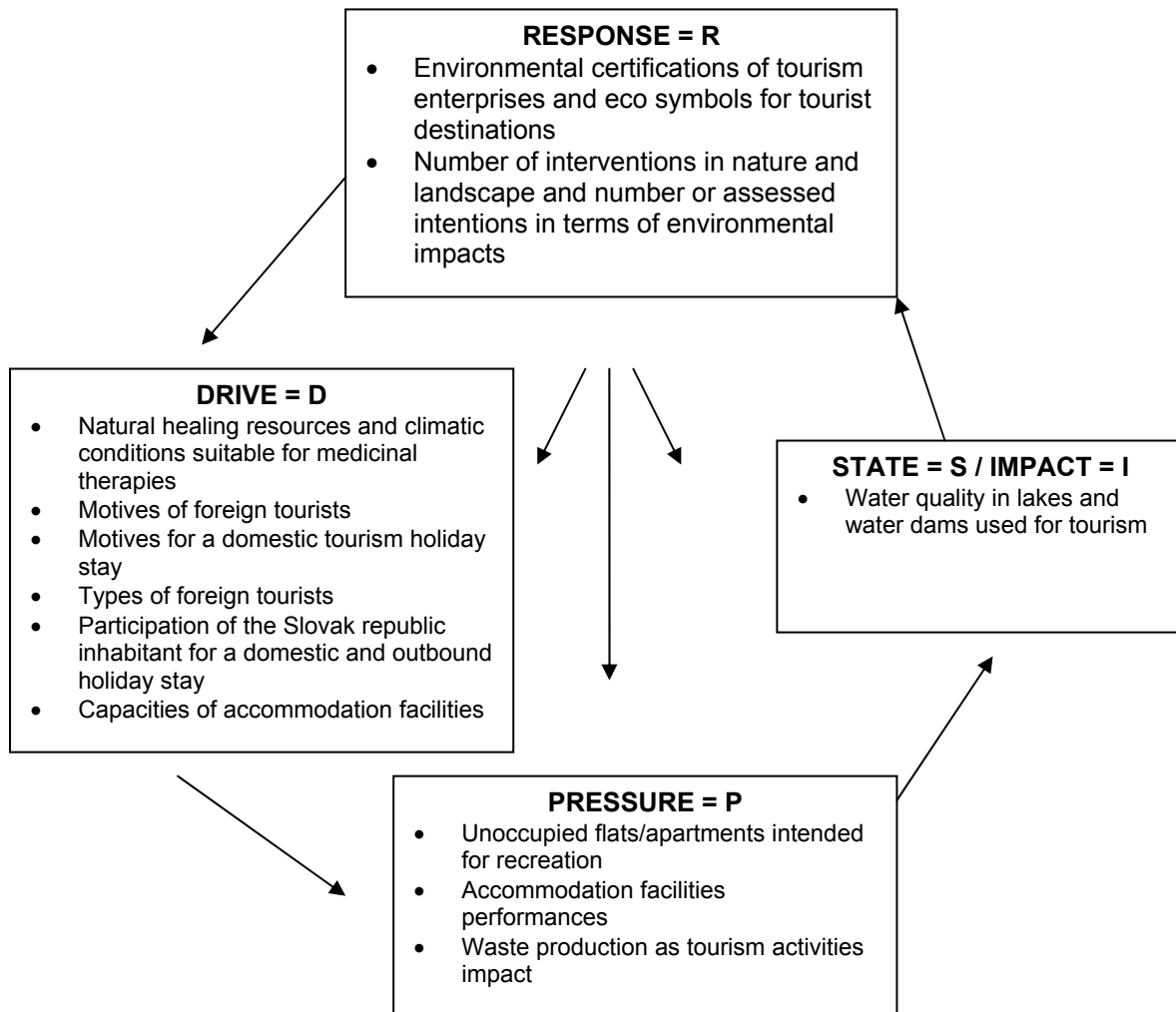
For the given reason the national parks territories were used as the basic level of geographical gauge and not the whole territory of the Slovak Republic, where data accessibility would be very problematic.

The following chapters are dealing with environmental impacts of tourism, specifically its elements; water, soil, air and biota.

5.1. Water

Water resources are being used to supply drinking water for accommodation facilities, sport and recreation resorts and other additional services for tourists. On the other hand, wastewater production of tourism resorts pollutes water courses. Excessive tourism wastewater production may cause local and seasonal problems related to wastewater treatment management. Compared with other sectors of economic activity, it is not possible to quote data of total water consumption and total quantities of wastewater production, treatment and subsequent discharge in the tourism sector. Indicators of Water consumption in tourism and Waste water production by tourism activities that would cover in a satisfying manner an issue of raw material demands as well as activities pressure related to environment were not included in the Set of indicators, as a suitable data collection mechanism was not provided for their filling in. Tourism as a sector of economic activity is neither highly demanding on water consumption and equally nor producing high wastewater quantities. Water consumption demands and wastewater production in the tourism sector or in individual tourism regions are usually characterized by considerable differences between high tourist season (summer time in case of recreation and tourism resorts at watersides or winter time in case of ski resorts situated in mountain regions) and off season time and considerable demands are put on water resources management, drinking water supply and waste water management (absence of public sewerage and waste water treatment plants in selected recreation and tourism resorts) mainly at local and regional level.

Using a water in tourism according to the D-P-S-I-R model



Set of aggregated and individual tourism and environmental indicators relevant to characteristic of using a water and its quality relevant to tourism

DPSIR position in the structure*	Individual indicator
DRIVE FORCE = D	Natural healing resources and climatic conditions suitable for medicinal therapies
	Motives of foreign tourists
	Motives for a domestic tourism holiday stay
	Types of foreign tourists
	Participation of the Slovak republic inhabitants for a domestic and outbound holiday stay
	Capacities of accommodation facilities
PRESSURE = P	Unoccupied flats/apartments intended for recreation
	Tourist density – Number of beds/km ²
	Accommodation facilities performances
	Waste production as tourism activities impact
STATE = S / IMPACT = I	Water quality in lakes and water dams used for tourism
RESPONSE = R	Environmental certifications of tourism enterprises and eco symbols for tourist destinations
	Number of interventions in nature and landscape and number or assessed intentions in terms of environmental impacts

*D – driving force *P – pressure *S – state *I – impact *R – response

5.1.1. Driving forces in tourism

Driving force indicators related to water use, Natural healing resources and climatic conditions suitable for medicinal therapies, Motives of foreign tourists, Motives for domestic holidays in domestic tourism, Types of foreign tourists, Participation of Slovak inhabitants on domestic tourism and Capacities of accommodation facilities are given in Chapter No 4.

Despite of a significant potential of natural healing resources, spa tourism is not one of the strongly represented motives neither for foreign nor domestic tourists. Holidays at watersides as one of the dominant motives for domestic tourists, are noted for greater mass attendance and often disproportional visitors concentration in a relatively short season. This type is characterized by greater changes due to new waterside creation (water reservoirs, gravel pit lakes) having subsequent recreation use. A lack of watersides and water courses for recreation is compensated by summer and thermal pools.

Transit and one-day non-transit foreign tourists and strongly dominant one-day domestic tourists do not have any increasing demands on water resources as they do not use accommodation facilities. On the contrary short-term and mainly long-term tourists bring economic effect by means of expenditures on accommodation, food and various additional services and apart from other things they also compensate to a certain degree increased demands on water resources use and waste water treatment.

5.1.2. Tourism pressure on water resources

Pressure indicators represent risks for water use and quality incurred by tourism activities. Unoccupied flats intended for recreation, Tourism density – Number of beds / km² and Accommodation facilities performances belong amongst these indicators.

Unoccupied flats intended for recreation

Indicator Unoccupied flats intended for recreation is mentioned in Chapter 5.4.2.1. If located in open-air landscape and missing basic infrastructure for drinking water supply and waste water treatment a considerable drawback of properties use for individual recreation in environmental terms is unrestrained use of accessible water resources and creation of point resources of surface water pollution often in valuable natural environment.

Indicator [Unoccupied flats/apartments intended for recreation](#)

Tourism density – Number of beds / km²

Indicator Tourism density – Number of beds / km² is given in Chapter 5.4.2.2. Area-wise distribution of tourism accommodation facilities enables to define and locate demands on water resources use and waste water treatment.

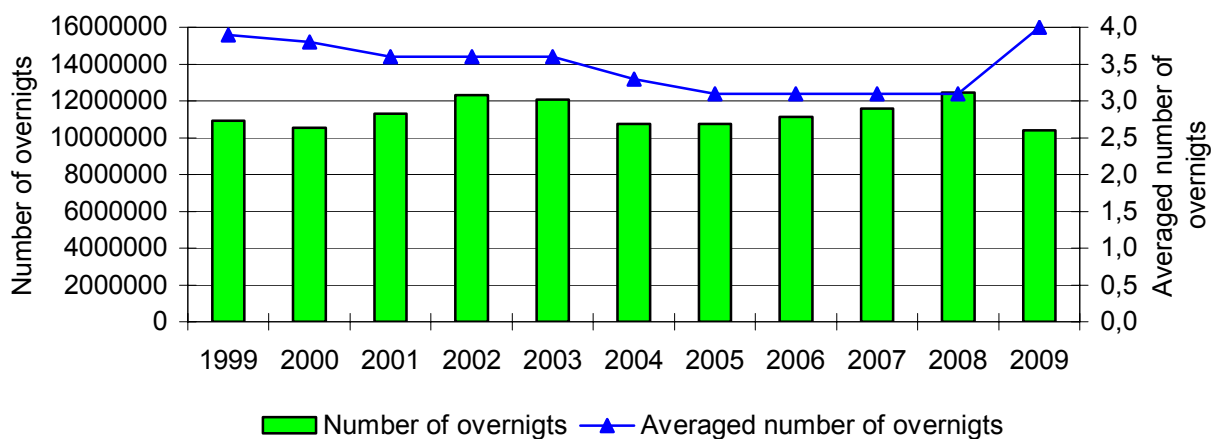
Indicator [Tourism density – number of beds/km²](#)

5.1.2.1 Accommodation facilities performance

Use of accommodation facilities by tourists, in direct dependence of their occupancy degree and the length of a stay in days, creates demands on water resources use and waste water treatment in individual touristic areas. Despite of considerable statistical data fluctuation, a number of overnight stays continuously stagnates alternating time periods of slight increases and vice versa short periods of significant drops. When compared to a longer period of the increase over the period of 2005 – 2008, such significant drop of overnights (a decrease

nearly up to 17%) occurred just in 2009. However in particular over the period of 1999 – 2008 the average number of overnights was continually decreasing, referring to a degree of tourism destination attractiveness as well as to a degree of infrastructure development having an effect on the length of carried out stays. In 2009, on the contrary, a significant increase of this indicator values occurred (an increase up to 32%). Northern Slovakia is the most visited area, where accommodation facilities in the Prešov and Žilina Regions jointly recorded 4 – 5 mills. of overnights, which represent approximately 40% of total number of overnights in Slovakia. However accommodation facilities in the Bratislava Region recorded the highest dynamics of development, where currently a lack of accommodation capacities appear in higher categories hotels in particular. At the same time however it can be stated that overnights in the Bratislava Region are of a short-term character having recorded the lowest average length of a stay exceeding only something more than 2 overnights. This indicator shows a balanced tendency in principle.

Accommodation facilities performances in the Slovak Republic (number of overnights, averaged number of overnights)



Source: ŠÚ SR; Makes: SAŽP
Indicator [Accommodation facilities performances](#)

5.1.2.2 Waste production incurred by tourism activities

Data acquired through the Statistical Office of the SR by means of existing statistic survey on waste production by economic activities sectors (OKEČ /classification of sectors by economic activities/) including also the Hotel and restaurants sector were available in the Slovak Republic till 2007. Certain disadvantage of such statistic survey was the fact that hotels and restaurants being determining reporting units do not cover all the economic entities undertaking in the area of tourism and equally such acquired data at the same time do not take into consideration seasonal differences of waste production. Since 2008 classification of economic activities by NACE subdivision for waste production has been introduced and one of the sections is the Section I – Accommodation and food services. The base of this change was a transfer of the Statistical office of the Slovak Republic to a revised classification of economic activities SK NACE Rev.2 currently providing a basic framework for a great amount of statistical data in the area of economic statistics. In mutual comparison of both classifications it is necessary to point out that an Item I Accommodation and food services in SK NACE Rev. 2 classification is methodology-wise as well as content-wise broader than Item H. Hotels and restaurants (55. Hotels and restaurants) subdivided by OKEČ.

Due to different definitions of these items in both statistical classifications it is not possible to mutually compare such acquired data. Except 2007, a decreasing trend of waste production in the Hotel and restaurants sector can be highly positively evaluated, however these

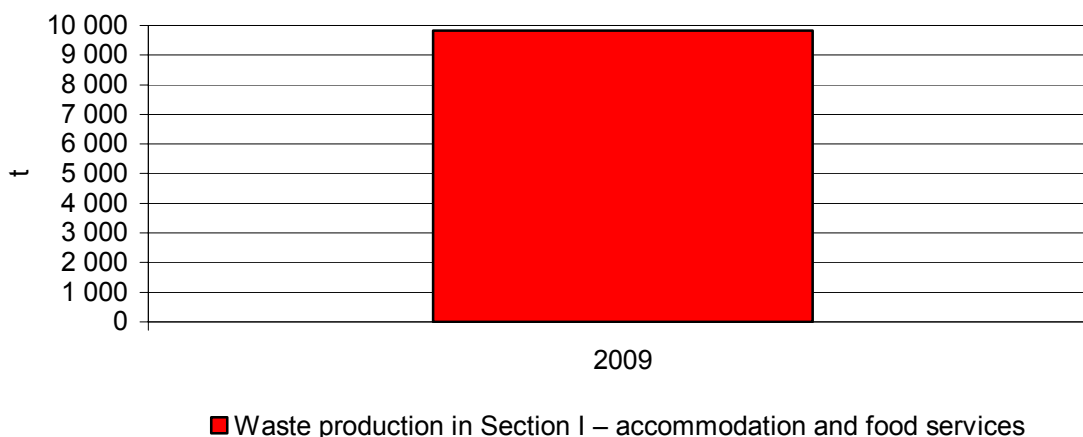
determining reporting units do not cover all the economic entities undertaking in the area of tourism.

Waste production in the Hotel and restaurants sector (t)



Source: ŠÚ SR; Makes: SAŽP
 Indicator [Waste production as tourism activity impact](#)

Waste production in Section I – accommodation and food services (t)



Source: ŠÚ SR, SAŽP; Makes: SAŽP
 Indicator [Waste production as tourism activity impact](#)

5.1.3. Water resources condition / impacts

Water quality conditions / impacts are expressed by an indicator Water quality in lakes and water reservoirs used for tourism.

5.1.3.1 Water quality in lakes and water reservoirs used for tourism.

Potential danger of surface water pollution is especially high in cases of natural water areas (lakes, gravel pit lakes etc.) with a small-scale surface where exceeded and often uncontrolled concentration of visitors can lead to a negative influence on water quality and also in selected recreation and tourism resorts, where no infrastructure including waste water treatment was built. Recreation water quality in water reservoirs and lakes is mostly satisfactory; in some locations unsatisfactory situation at the infrastructure level.

Water quality suitable for bathing over summer touristic season 2009 (evaluation according to the directive 2006/7/ES)

Kvalita vôd vhodných na kúpanie v SR počas letnej turistickej sezóny 2009, hodnotená podľa smernice 2006/7/ES



Source: MZ SR; Makes: SAŽP

Indicator [Water quality in lakes and water dams used for tourism](#)

5.1.4. Response

5.1.4.1 Environmental certifications of tourism enterprises and eco symbols for tourist destinations

Indicator Environmental certifications of tourism enterprises and eco symbols for tourist destinations is given in the chapter 5.4.4.1.

(Indicator [Environmental certifications of tourism enterprises and eco symbols for tourist destinations](#))

5.1.4.2 Number of interventions in nature and landscape and number of assessed intentions in terms of environmental impacts

Indicator Number of interventions in nature and landscape and number of assessed intentions in terms of environmental impacts is given in the chapter 5.4.4.2. Properties for Sport, Recreation and Tourism Purposes are, apart from others, given in Item No 14 of the List of proposed activities subjected to environmental impact assessment contained in Annex No 8 to the Act No 24/2006 Coll. on Environmental Impact Assessment and on amending and supplementing certain acts.

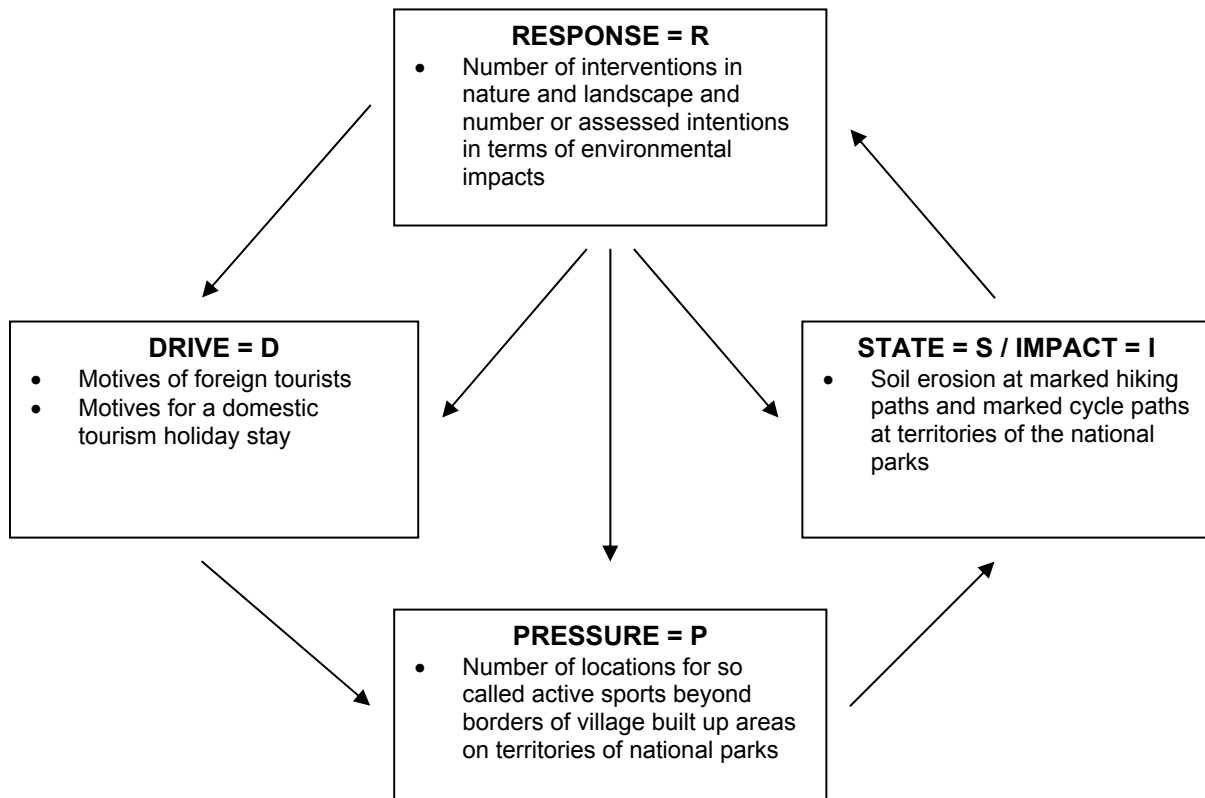
(Indicator [Number of interventions in nature and landscape and a number of assessed intentions in terms of environmental impacts](#))

5.2. Soil

Hiking and cycle-tourism belong to dynamic forms of tourism mostly applied in summer season. In case of regulation measures absence (movement on marked cycle paths only) on territories, mountain cycling, apart from others harmful factors, impacts erosion expansion in particular. On one hand touristic marked paths contribute to spatial regulation and tourists

movement guidance in the most valuable natural locations, on the other hand if improperly routed or if paths network density is too high on the territory and often in connection with undisciplined tourists, they can become erosion catalyst.

Using a soil in tourism according to the D-P-S-I-R model



Set of aggregated and individual tourism and environmental indicators relevant to characteristic of using a soil and its quality relevant to tourism

DPSIR position in the structure*	Individual indicator
DRIVE FORCE = D	Motives of foreign tourists
	Motives for a domestic tourism holiday stay
PRESSURE = P	Number of locations for so called active sports beyond borders of village built up areas on territories on the parks
STATE = S / IMPACT = I	Soil erosion at touristic marked paths and marked cycle paths at territories of the national parks
RESPONSE = R	Number of interventions in nature and landscape and number or assessed intentions in terms of environmental impacts

*D – driving force *P – pressure *S – state *I – impact *R – response

5.2.1. Driving forces in tourism

Driving force Indicators related to soil use and its quality, Motives of foreign tourists, Motives for holiday stay in domestic tourism, Types of foreign tourists and Participation of the Slovak Republic inhabitants on domestic tourism are given in Chapter No 4.

Activities in compliance with sustainable development requirements dominate amongst motives of foreign tourists. Relatively low interest of foreign tourists in skiing can be positively

evaluated in terms of natural environment, because downhill skiing in particular bring several potentially negative impacts on soil erosion.

Activities potentially risky for natural environment dominate amongst motives of domestic tourists. Mountain stays include apart from others also medium risk activities for soil quality (hiking, skiing, cycle-tourism etc.) and high risk activities requiring regulation (downhill skiing, ski alpinism etc.)

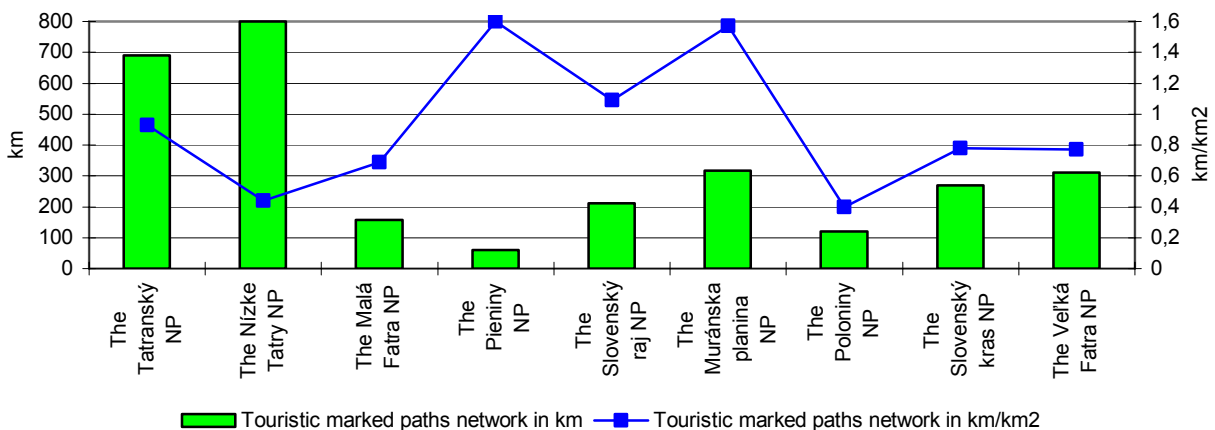
5.2.2. Tourism pressure on soil

Pressure indicators represent soil quality risks incurred by tourism activities. Number of locations for active sports on the national parks territories belongs amongst such indicators.

5.2.2.1. Number of locations for so called active sports beyond borders of village built-up area

In terms of trends it is necessary to state that over the period of 2001 – 2009 an increase of the lengths of cross-country skiing paths, touristic marked paths and marked cycle paths occurred. In terms of density of cross-country skiing paths, touristic marked paths and marked cycle paths the most fragmented territories are Pieniny National Park, Muránska planina National Park and Slovak Paradise National Park due to their area surface.

Density of touristic marked paths network on the national parks territories in 2009 (km, km/km²)



Source: ŠOP SR; Makes: SAŽP

Indicator [Number of locations for so called active sports beyond borders of village built-up areas on territories of the parks](#)

5.2.3. Soil quality condition / impacts

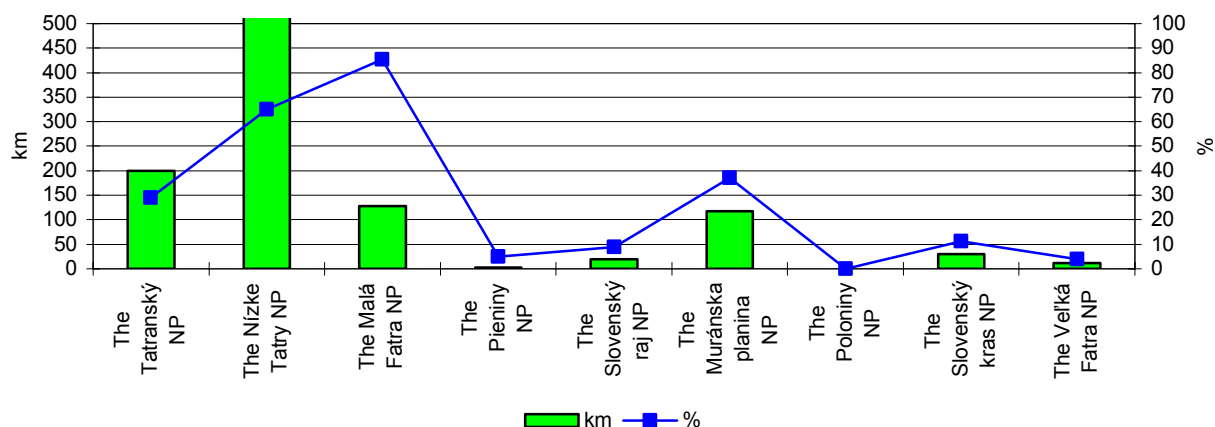
Soil quality condition / impacts are expressed by an indicator Soil erosion on touristic marked paths and marked cycle-paths on the national parks territories

5.2.3.1. Soil erosion on touristic marked paths and marked cycle-paths on the national parks territories

Critical soil erosion on touristic marked paths appears on territories of Low Tatra National Park (a significant erosion increase over the period of 2006 – 2009), Mala Fatra National Park (a significant erosion increase over the period of 2002 – 2003) and Muránska planina National Park (a significant erosion increase over the period of 2004 – 2005). A significant erosion increase over the period of 2004 – 2008 appeared also on the territory of Tatra National Park. On the contrary in 2009 a significant or slight erosion decrease on touristic

marked paths has occurred on the territory of Pieniny National Park or on the territory of Veľká Fatra National Park.

The length of touristic marked paths affected by erosion on the national parks territories in 2009 (km, %)



Source: ŠOP SR; Makes: SAŽP

Indicator [Soil erosion at marked hiking paths and marked cycle paths at territories of the national parks](#)

5.2.4. Response

5.2.4.1. Number of interventions in nature and landscape and number of assessed intentions in terms of environmental impacts

Indicator Interventions in nature and landscape is given in the Chapter 5.4.4.2.

Apart from others, the following assessed activities being directly related to tourism pressure on soil are defined in Section 13 and Section 14 of the Act No 543/2002 Coll. on Nature and Landscape Protection,

Over the period of 2004 – 2007 an increased number of these assessed interventions occurred on territories of fourth and fifth levels of nature protection (NNR /national nature reserves/, NR /nature reserves/, NNM /national nature monuments/, NM /nature monuments/, PA /protected areas/) and vice versa to a decrease on territories of third level of nature protection (territories of the national parks). On the contrary, over the period 2008 – 2009, a significant increase of these assessed interventions i.e. on territories with fourth and fifth levels of nature protection occurred (NNR, NR, NNM, NM, PA).

Properties for sport, recreation and tourism purposes are, apart from others, given in Item No 14 of the List of proposed activities subjected to environmental impact assessment contained in Annex No 8 to the Act No 24/2006 Coll. on environmental impact assessment and on amending and supplementing certain acts.

Number of interventions in nature and landscape related to tourism activities (number of interventions)

Kinds of activity	Year	Number of interventions			
		NNR, NR, NNM, NM, Protected sites	National park	Protected zone of national park, Protected landscape areas	Other landscape
Building and marking of hiking path, education cross country skiing path, cycle paths or motorway (§ 13 ods. 2 Act No 543/2002 Z. z. on Nature and Landscape Protection approved)	2004	7	11	20	13
	2005	6	5	29	16
	2006	9	4	11	3
	2007	13	5	17	17
	2008	6	13	27	11
	2009	19	19	27	20

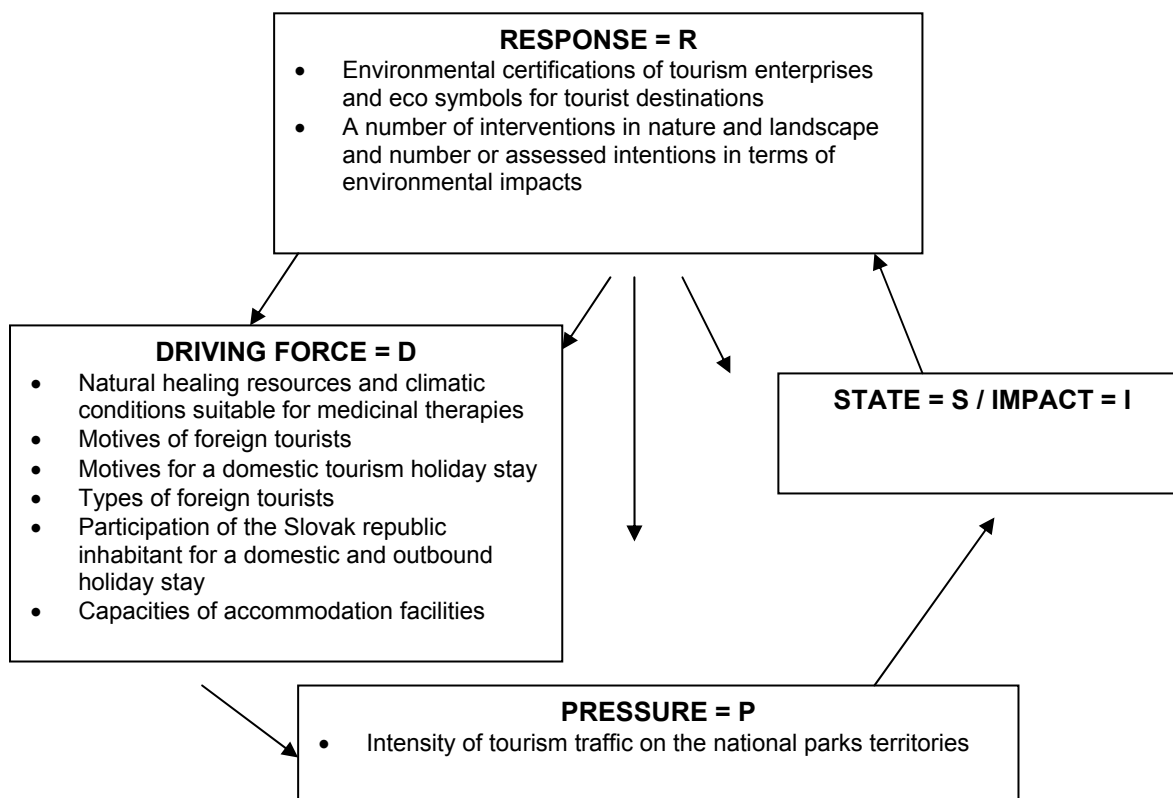
Source: ŠOP SR; Makes: SAŽP

Indicator [Number of interventions in nature and landscape and number of assessed intentions in terms of environmental impacts](#)

5.3. Air

It is not possible to state emission data of total volume of polluting substances emitted in the air by the tourism sector as compared to other economic activities. Considerable seasonality of tourism travel intensity in several tourism resorts requires conceptual solutions and organisation measures to be taken as mentioned in *the New strategy of Tourism development in the Slovak Republic till 2013*.

Air, its quality in tourism according to the D-P-S-I-R model



Set of aggregated and individual tourism and environmental indicators relevant to characteristic of using an air and its quality relevant to tourism

DPSIR position in the structure*	Individual indicator
DRIVE FORCE = D	Natural healing resources and climatic conditions suitable for medicinal therapies
	Motives of foreign tourists
	Motives for a domestic tourism holiday stay
	Types of foreign tourists
	Participation of the Slovak republic inhabitants for a domestic and outbound holiday stay
	Capacities of accommodation facilities
PRESSURE = P	Intensity of tourism traffic on the national parks territories
STATE = S / IMPACT = I	-
RESPONSE = R	Environmental certifications of tourism enterprises and eco symbols for tourist destinations

	Number of interventions in nature and landscape and number or assessed intentions in terms of environmental impacts
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*D – driving force *P – pressure *S – state *I – impact *R – response

5.3.1. Driving forces in tourism

Driving forces indicators related to the air quality and climate changes, Nature climatic resources and climatic conditions suitable for medicinal therapies, Motive of foreign tourists, Motives for a domestic tourism holiday stay, Types of foreign tourists, Participation of the Slovak Republic inhabitants on domestic tourism and Capacities of accommodation facilities are stated in the Chapter No 4. Spa tourism is neither considerably present amongst motives of foreign tourists nor domestic ones. Yet climatic spa tourism in particular requires conservation of highly valued environment for therapeutic reasons, featuring abundance of nature elements and park greenery that indirectly contribute to its protection. One of the dominant motives of foreign tourists in the Slovak Republic is a transit affecting transit traffic increase on already overloaded main traffic routes and considerable worsening of already harmed environment along these routes.

5.3.2. Tourism pressure on air quality and climate changes

Pressure indicators represent risks for air quality created by tourism activities. Intensity of tourism traffic on territories of the national parks belongs amongst these indicators.

5.3.2.1. Intensity of tourism traffic on territories of the national parks

Delimited sections of the I., II. and selected sections of the III. class roads with dominant tourism transport, where traffic count is being carried out, are situated on the Tatra National Park territory only. Yet such delimited road categories do not cover all sections of roads with dominant tourist transport routed to a number of frequented ski resorts (Jasná, Srdiečko, Vrátna etc.) located at territories of the respective national parks.

Intensity of tourism traffic on through roads of the I. and II. class on the territory of the Tatranský national park in 2005 (number of vehicles / 24 hours)

Number of section	Name of section	Number of road	Lorries	Cars	Moto-cycles	Toget-her
00759	Podbanské – crossing III/18144	000537	103	913	16	1 032
00757	Crossing II/538 – crossing Štrbské Pleso	000537	141	1 541	18	1 700
00750	Crossing Štrbské Pleso – Vyšné Hágy (crossing II/539)	000537	141	1 541	18	1 700
00760	Vyšné Hágy – Tatranská Polianka (crossing III/18150)	000537	311	2 260	26	2 597
00770	Tatranská Polianka – Starý Smokovec (crossing II/534)	000537	354	2 365	31	2 750
00780	Starý Smokovec (crossing II/534) – Tatranská Lomnica (crossing II/540)	000537	389	2 621	37	3 047
00796	Tatranská Lomnica (crossing II/534) – Tatranská Kotlina (crossing I/67)	000537	510	2 158	42	2 710
00807	Sarpanec (crossing III/67026) – Tatranská Kotlina (crossing II/537)	000067	379	1 752	18	2 149
01270	Tatranská Kotlina (crossing II/537) - Ždiar	000067	570	2 249	21	2 840
01280	Ždiar – Tatranská Javorina	000067	361	1 131	16	1 508

01286	Tatranská Javorina – state border Poland	000067	276	878	10	1 124
02360	Tatranská Štrba (crossing I/18) – crossing II/537	018144	199	1 307	5	1 511
02370	Mengusovce – Vyšné Hágy (crossing II/537)	000539	258	1 047	5	1 310
03420	Svit – Tatranská Polianka (crossing II/537)	018150	382	1 521	5	1 908
01260	Crossing Nová Lesná – Starý Smokovec (crossing II/537)	000534	393	3 250	17	3 660
02387	Eurocamp FICC – Tatranská Lomnica (crossing II/540)	000540	178	1 416	11	1 605

Source: SSC

Indicator [Intensity of tourism traffic on the national parks territories](#)

5.3.3. Air quality condition / impacts

Owing to tourism transport, negative impacts on the air pollution show the most distinctly in the most visited touristic areas that are on territories of the national parks, but for the time being these are neither methodologically monitored nor data evaluated. Due to missing methodology and content as well as relevant data absence it is not possible to quantify in satisfactory manner a degree of tourism and transport impacts on the air pollution.

5.3.4. Response

Environmental certifications of tourism enterprises and eco symbols for tourist destinations

Indicator Environmental certifications of tourism enterprises and eco symbols for tourist destinations are given in the Chapter 5.4.4.1.

Indicator [Environmental certifications of tourism enterprises and eco symbols tourist destinations](#)

Number of interventions in nature and landscape and number of assessed intentions in terms of environmental impacts

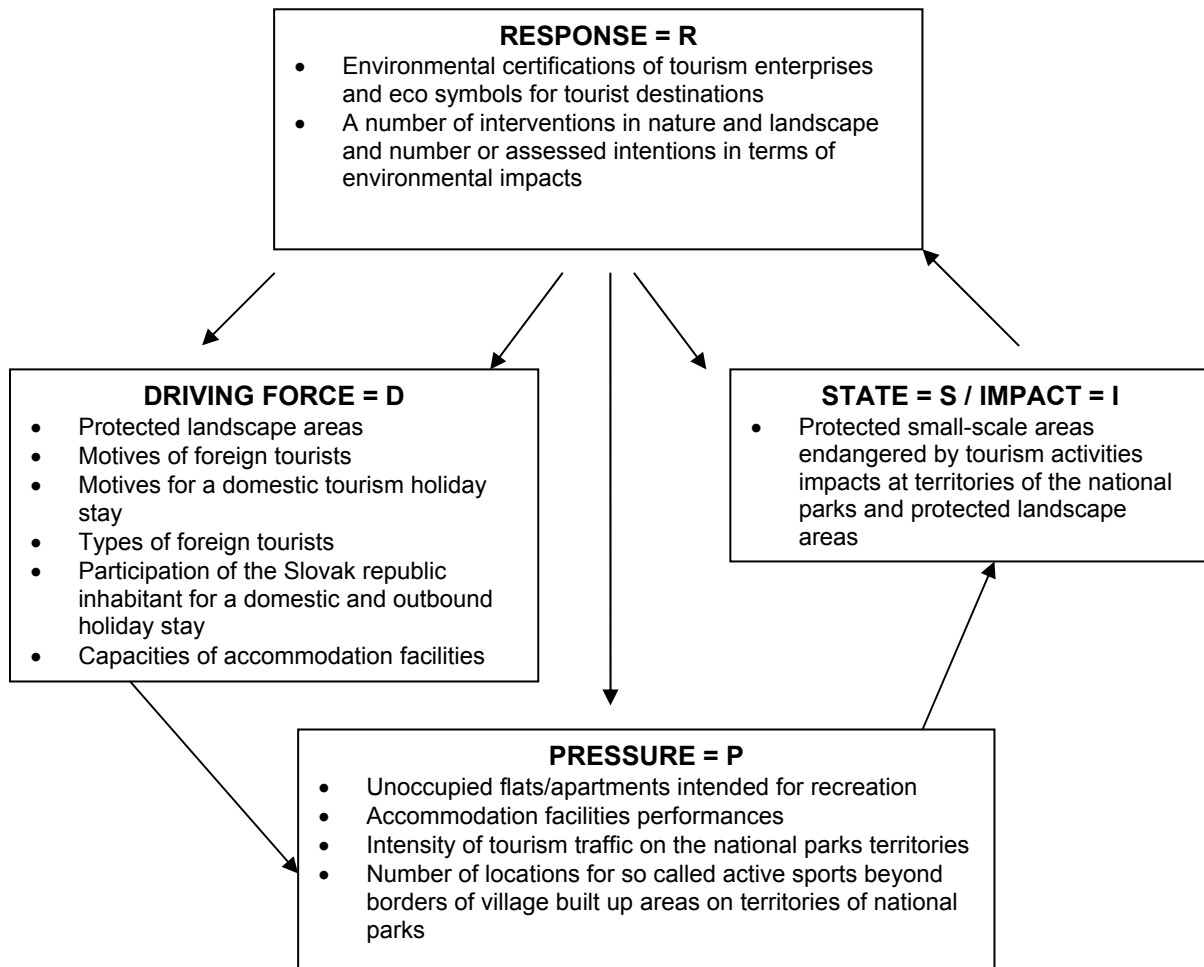
Indicator Number of interventions in nature and landscape is stated in the Chapter 5.4.4.2. Properties for sport, recreation and tourism purposes are, apart from others, given in Item No 14 of the List of proposed activities subjected to environmental impact assessment contained in Annex No 8 to the Act No 24/2006 Coll. on Environmental Impact Assessment and on amending and supplementing certain acts.

Indicator [Number of interventions in nature and landscape and number of assessed intentions in terms of environmental impacts](#)

5.4. Biota

Tourism is mostly concentrated in the areas that are relatively a little modified by anthropic activity until now, healthy recreation environment being required by tourists themselves, on the other hand extreme pressure on environment occurs in some areas. It is partly caused by various facilities and properties, but also by area overload with tourists whereas possible special spread of tourists on the territory is very hard to control. If not volume and area-wise regulated, tourism activities directly endanger protected areas.

Biodiversity and landscape in tourism according to the D-P-S-I-R model



Set of aggregated and individual tourism and environmental indicators relevant to characteristic of biodiversity and landscape and its quality relevant to tourism

DPSIR position in the structure*	Individual indicator
DRIVE FORCE = D	Protected landscape areas
	Motives of foreign tourists
	Motives for a domestic tourism holiday stay
	Types of foreign tourists
	Participation of the Slovak republic inhabitants for a domestic and outbound holiday stay
	Capacities of accommodation facilities
PRESSURE = P	Unoccupied flats/apartments intended for recreation
	Accommodation facilities performances
	Intensity of tourism traffic on the national parks territories
	Number of locations for so called active sports beyond borders of village built-up areas on territories of the parks
STATE = S / IMPACT = I	Number of interventions in nature and landscape and number or assessed intentions in terms of environmental impacts
	Environmental certifications of tourism enterprises and eco symbols for tourist destinations
RESPONSE = R	Number of interventions in nature and landscape and number or assessed intentions in terms of environmental impacts
	Environmental certifications of tourism enterprises and eco symbols for tourist destinations

*D – driving force *P – pressure *S – state *I – impact *R – response

5.4.1. Driving forces in tourism

Indicators of driving forces related to biodiversity protected nature areas, motives of foreign tourists, Motives for a domestic tourism holiday stay, Types of foreign tourists, Participation of the Slovak Republic inhabitants on domestic tourism and Capacities of accommodation facilities are stated in the Chapter No 4.

Protected nature areas represent important destinations for tourists in terms of their attractiveness. Currently considerable pressure to decrease surface area and to adjust borders of the national parks in particular appeared (zoning process is under the way).

Activities in compliance with sustainable development requirements dominate amongst motives of foreign tourists. Relatively low interest of foreign tourists in skiing can be positively evaluated, because downhill skiing in particular brings several potentially negative impacts by means of mountain transporting facilities construction and operation and excessive concentration of tourists. Activities potentially risky for natural environment dominate amongst motives of domestic tourists. Mountain stays as one of the dominant motives include sustainable activities in terms of environmental pressure (recreation), medium risk activities for environment (hiking, skiing, cycle-tourism etc.) and touristic activities requiring strict regulation especially on protected areas (downhill skiing, ski alpinism, paragliding etc.) Short-term and mainly long-term tourists bring economic effect by means of expenditures on accommodation, food and various additional services and apart from other things, they also compensate to a certain degree possible environmental pressure related to it. Strongly dominant one-day domestic tourism is carried out mainly on recreation service areas of cities, usually they are not situated in the most valuable natural territories thus level of environmental pressure is not very high.

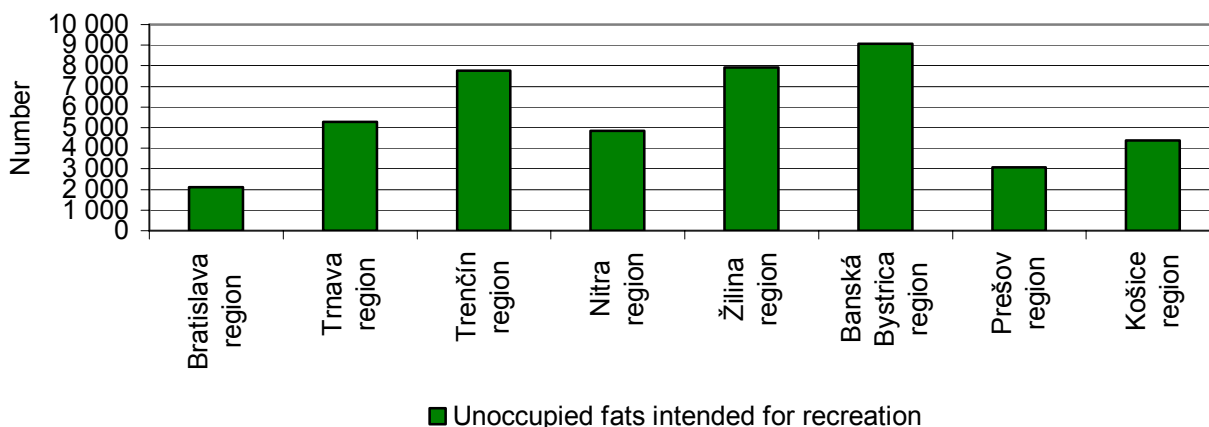
5.4.2. Tourism pressure on biodiversity

Pressure indicators represent biodiversity risks incurred by tourism activities. Unoccupied flats intended for recreation, Tourism density – Number of beds/km² and Accommodation facilities performances belong amongst these indicators.

5.4.2.1. Unoccupied flats intended for recreation

In environmental terms, expansion of cottage villages often into unharmed parts of nature is a considerable drawback of properties use for individual recreation (cottages, lodges and chalets) creating point resources of surface water pollution and illegal dumps, increasing noise level and uncontrolled deforestation occurrence as a result of growing tourists' concentration and disorderliness.

Unoccupied flats intended for recreation by individual regions of the Slovak Republic to 26.05.2001 (number of flats)

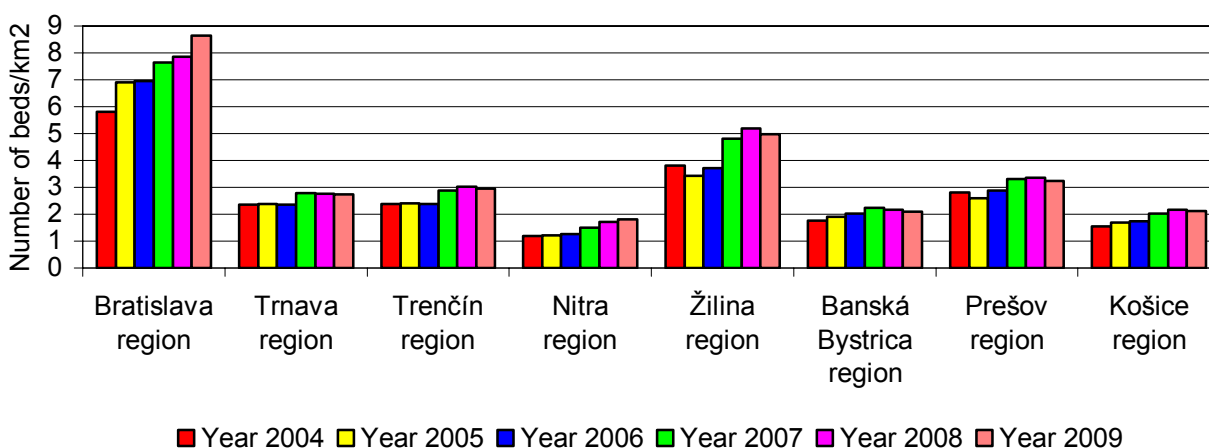


Source: ŠÚ SR; Makes: SAŽP
Indicator [Unoccupied flats/apartments intended for recreation](#)

5.4.2.2. Tourism density – Number of beds/ km²

Indicator Tourism density – Number of beds / km² is given in Chapter 5.4.2.2. Area-wise distribution of tourism accommodation facilities enables to define and locate demands on water resources use and waste water treatment. The greatest area-wise concentration of capacities of accommodation facilities within the Slovak Republic includes compact unbroken territories of the High, West and Low Tatras Regions, Regions of Veľká and Malá Fatra with adjacent areas of Popradská, Liptovská and Turčianska Basins as well as Horehronské Podolie).

Tourism density by individual regions of the Slovak republic (Number of beds / km²)



Source: ŠÚ SR; Makes: SAŽP
Indicator [Tourism density – number of bedskm²](#)

Accommodation facilities performance

Indicator Accommodation facilities performance is stated in the Chapter 5.1.2.1.

Indicator [Accommodation facilities performances](#)

Intensity of tourism traffic on territories of the national parks

Indicator Intensity of tourism traffic on territories of the national parks is stated in the chapter 5.3.2.1.

Indicator [Intensity of tourism traffic on the national parks territories](#)

5.4.2.3. Number of locations for so called active sports at the national parks territories outside of borders of village areas

Over the period of 2001 – 2009 number of locations for so called active sports mountain tourism activities outside of borders of village built-up areas and particularly an increase of the lengths of cross-country skiing paths, touristic marked paths and marked cycle paths have occurred. Locations for mountain tourism activities are concentrated mostly on the territories of Tatra National Park, Low Tatra National Park, Mala Fatra National Park and Slovak Paradise National Park. In terms of density of cross-country skiing paths, touristic marked paths and marked cycle paths the most fragmented territories are Pieniny National Park, Muránska planina National Park and Slovak Paradise National Park due to their area surface.

Number of locations for mountain tourism activities outside of borders of village built-up areas on territories of the national parks (Section 14 article 1 letters b, c, d, of the Act No 543/2002 Coll. on Nature and Landscape Protection) (number, km, km/km²)

Name of protected area	Mountain climbing and rock climbing	Skialpinism	Camping, tenting and bivouac	Skiing areas	Cross country skiing paths (km resp. km/km ²)	Marked bicycle paths (km resp. km/km ²)	Marked hiking paths (km resp. km/km ²)	
The Tatranský national park								
2001	whole area*	6				150/0,20	600/0,81	
2002	whole area*	6				150/0,20	360/0,49	
2003	whole area*	6	1	7	108/0,14	150/0,20	690/0,93	
2004	whole area*	6	1	7	108/0,14	150/0,20	690/0,93	
2005	whole area*	6	1	7	108/0,14	150/0,20	690/0,93	
2006	whole area*	6	1	7	108/0,14	160/0,22	690/0,93	
2007	whole area*	6	1	7	108/0,14	160/0,22	690/0,93	
2008	whole area*	6	1	7	108/0,14	160/0,22	690/0,93	
2009	whole area*	6	1	7	108/0,14	172/0,23	690/0,93	
The Nízke Tatry national park								
2001		4	1			201/0,25	800/0,98	
2002		4	1			201/0,25	800/0,98	
2003		4	1	6	6	201/0,25	800/0,98	
2004		4	6 (3 areal, 2 paths, 1 location)	7	6	40 + suitable marked hiking paths	718/0,39 (included protected zone of national park)	800/0,44 (included protected zone of national park)
2005		4	6 (3 areal, 2 paths, 1 location)	7	6	40 + suitable marked hiking paths	718/0,39 (included protected zone of national park)	800/0,44 (included protected zone of national park)
2006		4	6 (3 areal, 2 paths, 1 location)	7	6	40 + suitable marked hiking paths	718/0,39 (included protected zone of national park)	800/0,44 (included protected zone of national park)

2007	4	6 (3 areal, 2 paths, 1 location)	7	6	40 + suitable marked hiking paths	718/0,39 (included protected zone of national park)	800/0,44 (included protected zone of national park)
2008	4	6 (3 areal, 2 paths, 1 location)	7	6	40 + suitable marked hiking paths	718/0,39 (included protected zone of national park)	800/0,44 (included protected zone of national park)
2009	4	6 (3 areal, 2 paths, 1 location)	7	6	40 + suitable marked hiking paths	718,5/0,4 (included protected zone of national park)	800/0,44 (included protected zone of national park)
The Malá Fatra national park							
2001	1	1				0	157/0,69
2002	1	1				0	157/0,69
2003	1	1		2		0	157/0,69
2004	1	1	-	2	-	-	157/0,69
2005	5	-	4	2	15 + 157 marked hiking paths	35	157/0,69
2006	5	-	4	2	15 + 157 marked hiking paths	35/0,15	157/0,69
2007	5	-	4	2	15 + 157 marked hiking paths	35/0,15	157/0,69
2008	5	-	4	2	15 + 157 marked hiking paths	35/0,15	157/0,69
2009	5	-	4	2	15 + 157 marked hiking paths	35/0,15	157/0,69
The Pieninský national park							
2001	0	0				15/0,4	60/1,6
2002	0	0				15/0,4	60/1,6
2003	0	0	2	1	9	15/0,4	60/1,6
2004	-	-	1	1	9	15/0,4	60/1,6
2005	-	-	2	1	22/0,59	15/0,4	60/1,6
2006	-	-	2	1	22/0,59	15/0,4	60/1,60
2007	-	-	2	1	22/0,59	15/0,4	60/1,60
2008	-	-	2	1	22/0,59	25/0,7	60/1,60
2009	-	-	2	1	22/0,59	25/0,7	60/1,60
The Slovenský raj national park							
2001	1	0	3	5	1	60/0,3	275/1,39
2002	1	0	3	5	1	44,5/0,2	215/1,09
2003	5***	0	3	5	1	44,5/0,2	215/1,09
2004	5***	-	3	5	1	44,5/0,2	215/1,09

2005	5***	-	3	7	50 + suitable marked hiking paths (included protected zone of national park)	118,5/0,1 (included protected zone of national park)	215/1,09
2006	5***	-	3	7	50 + suitable marked hiking paths (included protected zone of national park)	118,5/0,1 (included protected zone of national park)	215/1,09
2007	1	0	4	9	50 + suitable marked hiking paths (included protected zone of national park)	118,5/0,1 (included protected zone of national park)	215/1,09
2008	1	0	4	9	50+ suitable marked hiking paths (included protected zone of national park)	39,9/0,2 Only territory of national park	216,6/1,1 Only territory of national park
2009	5***	0	4	9	50+ suitable marked hiking paths (included protected zone of national park)	44,3/0,22	217,6/1,1
The Muránska planina national park							
2001	3	0				0	318/1,57
2002	1	0				0	318/1,57
2003	1	0				0	318/1,57
2004	2	0	3	0	26/0,13	13/0,06	318/1,57
2005	2	-	3	-	26/0,13	13/0,06	318/1,57
2006	2	-	3	-	26/0,13	13/0,06	318/1,57

2007	2	-	3	-	44 + suitable marked hiking paths (included protected zone of national park)	147 (included protected zone of national park)	318 (included protected zone of national park)
2008	2	-	3	-	44 + suitable marked hiking paths (included protected zone of national park)	147 (included protected zone of national park)	318 (included protected zone of national park)
2009	2	-	3	-	44 + suitable marked hiking paths (included protected zone of national park)	147 (included protected zone of national park)	318 (included protected zone of national park)
The Poloniny national park							
2001	0	0				0	119/0,4
2002	0	0				0	119/0,4
2003	0	0	2	1	0	0	119/0,4
2004	0	0	2	1	0	0	119/0,4
2005	-	-	2	1	119/0,4	44/0,15	119/0,4
2006	-	-	2	1	119/0,4	44/0,15	119/0,4
2007	0	0	2	1	121/0,41	44/0,15	121/0,41
2008	0	0	2	1	121/0,41	44/0,15	121/0,41
2009	0	0	2	1	121/0,41	44/0,15	121/0,41
The Slovenský kras national park							
2001							
2002	1	0				38/0,19	270/0,78
2003	1	0				38/0,19	270/0,78
2004	1	0				38/0,19	270/0,78
2005	1	-	-	-	-	38/0,19	270/0,78
2006	1	-	5	-	-	38/0,19	270/0,78
2007	1	-	5	-	suitable marked hiking paths	38/0,19	270/0,78
2008	1	-	5	-	suitable marked hiking paths	38/0,19	270/0,78
2009	1	-	5	-	suitable marked hiking paths	38/0,19	270/0,78
Národný park Veľká Fatra****							
2001	3	0				100/0,25	200/0,5
2002	3	0				100/0,25	200/0,5
2003	3	0	0	3	0	100/0,25	299/0,74
2004	5			3		100/0,25	299/0,74
2005	8	1	6	3	300/0,74	103/0,26	300/0,74
2006	8	1	6	3	302/0,75	103/0,26	302/0,75

2007		8	1 + suitable marked hiking paths	6	3	302/0,75	103/0,26	310/0,77
2008		8	1 + suitable marked hiking paths	6	3	302/0,75	103/0,26	310/0,77
2009		8	1 + suitable marked hiking paths	6	3	302/0,75	103/0,26	310/0,77
Together								
2001							526/0,16	2529/0,8
2002	9 + the whole area of The Tatranský national park	8					548/0,17	2499/0,8
2003	15 + the whole area of The Tatranský national park	8	14	25	118	548/0,17	2928/0,9	
2004	18 + the whole area of The Tatranský national park	13	17	25	184	1 078,5	2 928	
2005	25 + the whole area of The Tatranský national park	13	28	27	680 + suitable marked hiking paths	1 234,5	2 929	
2006	26 + the whole area of The Tatranský national park	13	33		682 + suitable marked hiking paths	1 244,5	2 931	
2007	21 + the whole area of The Tatranský national park	13 + TZCH	34	29	875 + suitable marked hiking paths	1 378,5	2 941	
2008	21 + the whole area of The Tatranský national park	10 + TZCH	34	29	865 + suitable marked hiking paths	1 309,9 km	2942,6 km	
2009	25 + the whole area of The Tatranský national park	10 + TZCH	34	29	865 + suitable marked hiking paths	1 326,8 km	2943,6 km	

Source: ŠOP SR

Indicator [Number of locations for so called active sports beyond borders of village built-up areas on territories of the parks](#)

5.4.3. Biodiversity condition / Impacts

5.4.3.1. Number of PSA /protected small-scale areas/ endangered by tourism activities impact on territories of the national parks and protected landscape areas

The highest rate of protected small-scale areas endangered by tourism activities impact is shown at the territories of Tatra National Park, Low Tatras NP /National Park/, Malá Fatra NP, Pieniny NP and Slovak Paradise NP as well as Dunajské luhy PLA /Protected Landscape Area/, Malé Karpaty PLA, Strážovské vrchy PLA, Poľana PLA, Cerová vrchovina PLA and Vihorlat PLA.

Number of PSA in the national parks and protected landscape areas endangered by tourism activities impact in 2009

Name of protected area	Location of accommodation facilities (number of facilities / number of beds)	Locations of cable lifts and ski lifts (km)	Locations for so called active sports (mountain climbing, ski alpinism, paraglaiding)	Location of marked bicycle paths and marked hiking paths
The Tatranský national park	11 highly mountain cottages / 500 beds (NNR – Mlynická dolina, Mengusovská dolina, Velická dolina, Studené doliny, Skalnatá dolina, Dolina Bielej vody, Belianske Tatry)	Cable lifts (NNR - Mlynická dolina, Furkotská dolina, Skalnatá dolina, Studené doliny, Strednica- Belianske Tatry, Spálená – Roháčska dolina, Tatranská Javorina)	all, without NNR Javorová dolina, Belianske Tatry, Slavkovská dolina, Štôlska dolina, NNR Západných Tatier mountain climbing; NNR - Skalnatá dolina, Studené doliny, Slavkovská dolina, Mlynická dolina, Furkotská dolina – paraglaiding; NNR - Dolina Bielej vody, Skalnatá dolina, Studené doliny, Mlynická dolina, Furkotská dolina - ski alpinism;	cca 600 km marked hiking paths (especially NNR in area of High Tatras), 9 marked bicycle paths (part of them in locations direction Spišská Belá – Tatranská Kotlina, Bachledova dolina, Hrebienok)
The Nízke Tatry national park	3 facilities/ 325 beds (NNR Demänovská dolina)	-	NNR Demänovská dolina, NNR Ďumbier NNR Jánska dolina	60 km marked hiking paths (NNR - Demänovská dolina, Ďumbier, Jánska dolina, Ohnište, Salatín, Skalka, PR - Kozí chrbát, Štroty, Martalúžka)
The Malá Fatra national park	-	(1 ski lift – down station interferences cca 30 m to territory NNR Chleb, 1 cable lift – across reservation trail of illegal ski alpinism)	NNR Chleb – ski alpinism, paraglaiding; NNR Suchý, NNR Prípor – ski alpinism; NNR Rozsutec – mountain climbing, ski alpinism – no legal	marked hiking paths (NNR - Tiesňavy, Prípor, Suchý, Kľačianska Magura, Veľká Bránica Rozsutec, Chleb, Šútovská dolina) No legal bivouac on this paths
The Muránska planina national park	-	-	-	marked hiking paths (PR Bacúšska jelšina, NNR Hradová, NNR Hrdzavá, NNR Malá Stožka, PR Suché doly, PR Zlatnianske skalky, NNR Cigánka)
The Pieniny national park	2 facilities / 92 beds (Lesnica - zone C,	-	-	marked hiking paths (zone B Haligovské

	Haligovce - zone D of national park)			skaly, zone B Prielom Dunajca, Prielom Lesnického potoka)
The Slovenský raj national park	42 facilities (NNR Prielom Hornádu-1 On border CHÚ, PR Mokrá – 1, NNR Kysel-3, PR Čingovské hradisko-6, NNR Prielom Hornádu 10 NNR Stratená-19, PR Muráň-1, NNR Zejmarská roklina-1)	1 cable lift Dedinky	1 location of rock climbing (NNR Prielom Hornádu – Tomášovský výhľad); In winter ice climbing – 4 locations (NNR Suchá Bela, NNR Prielom Hornádu – Letanovský mlyn, Kláštorská roklina, NNR Kysel – Sokolia dolina)	marked hiking paths (NNR - Suchá Belá, Piecky, Sokol, Prielom Hornádu, Kysel, Zejmarská roklina, Stratená)
The Poloniny national park	-	-	-	marked hiking paths (NNR Stuzica, NNR Jarabá skala, NNR Pľaša, PR Udava, PR Šípková)
The Veľká Fatra national park	Smrekovica -1 facility/50 beds,)	-	NNR Tlstá, NNR Veľká Skalná (no legal rock climbing)	marked hiking paths (NNR Suchý vrch). No legal bicycle path (NNR Suchý vrch)
The Slovenský kras national park	-	-	NNR Zádielská tiesňava (10 trails for mountain climbing), NNR Brzotínske skaly (no legal mountain climbing)	marked hiking paths (PR Gerlachovské skaly, PR Palanta, NNR Zádielská tiesňava)
PLA Záhorie	-	-	-	-
PLA Dunajské luhy	-	-	-	-
PLA Malé Karpaty	-	-	4 (NNR Devínska Kobyla, NNR Roštún, NNR Čachtický hradný vrch, NNR Pohanská	21 (from them 2 bicycle marked paths)
PLA Biele Karpaty	-	1 facility (0,6 km)	1 mountain climbing (PP Beckovské hradné bralo)	13
PLA Ponitrie	-	-	6 mountain climbing, paragliding (PR Žibrica, NNR Zoborská lesostep, NNR Veľká skala, PP Ostrovica, PP Končítá, PR Makovište)	6 Marked hiking paths (NNR Zoborská lesostep, PR Žibrica, CHA Jelenská gaštanica, PR Buchlov, NNR Vtáčnik, NNR Horšianska dolina)
PLA Štiavnické vrchy	1 facility / beds (NNR Sitno)	Cable lift 2100m	NNR Sitno (mountain climbing)	Marked hiking paths (18 protected areas)
PLA Strážovské vrchy	2 facilities / 52 beds (NNR Súľovské skaly), 5 facilities /145 beds (protected zone of NNR Súľovské skaly), 36 private cottages (in location Čierny potok in protected zone of NNR Súľovské skaly)	1 ski lift (protected zone of NNR Súľovské skaly)	Mountain climbing in 5 protected areas (NNR Súľovské skaly, NNR Manínska Tiesňava, PR Kostecká tiesňava, PP Bosmany, PP Prečínska skalka	Marked hiking paths – 5 protected areas (NNR - Strážov, Súľovské skaly, Manínska tiesňava, Vápeč, PR Kostecká tiesňava), Marked bicycle paths – 3 protected areas (across state road NNR - Súľovské skaly, Manínska tiesňava, PR Kostecká tiesňava)
PLA Kysuce	-	2 cable lifts - 0,2 km (NNR Veľká Rača)	-	Marked hiking paths (NNR - Veľká Rača, Veľký Javorník)
PLA Horná Orava	-	-	-	Marked hiking paths (A zone Babia hora, A zone Pílsko)
PLA Poľana	1 hotel / 112 beds and cottages / cca 80 beds (near NNR Zadná	1 ski lift - 350 m (NNR Zadná Poľana)	(NPP Vodopád Bystrého potoka - only on ice falls,	Marked hiking paths - 5 protected areas (NNR Zadná Poľana, NNR

	Poľana), 1 facility / 45 beds (cca 500 m from NNR Lubietovský Vepor)		PP Kalamárka)	Lubietovský Vepor, PR Havranie skaly, NPP Vodopád Bystrého potoka, PP Kalamárka), 1 marked bicycle path
PLA Cerová vrchovina	-	-	-	Marked bicycle paths (PR Steblová skala, NNR Ragáč, PR Hajnáčsky hradný vrch, NNR Pohanský hrad, NNR Šomoška, PP Belinské skaly, PP Zaboda, CHA Fenek)
PLA Latorica	-	-	-	-
PLA Vihorlat	3 facilities / 65 beds (NNR Morské oko)	-	-	Marked hiking paths (NNR Vihorlat, NNR Morské oko, PP Sninský kameň, PP Malé Morské oko, Remetské Hámre- Podhorod), forest education path above Morské oko
PLA Východné Karpaty	-	-	-	Marked hiking path (PR Haburské rašelinisko)

Source: ŠOP SR

Indicator [Protected small-scale areas endangered by tourism activities impacts at territories of the national parks and protected landscape areas](#)

5.4.4. Response

5.4.4.1. Environmental certifications of tourism enterprises and eco symbols for tourist destinations

Thermal swimming pools Podhájska /*Termálne kúpalisko Podhájska, s. r. o.* / and Termal, s.r.o., Veľký Meder are enterprises certified to Environmental Management System (EMS) according to ISO14001 Standard till the end of 2009.

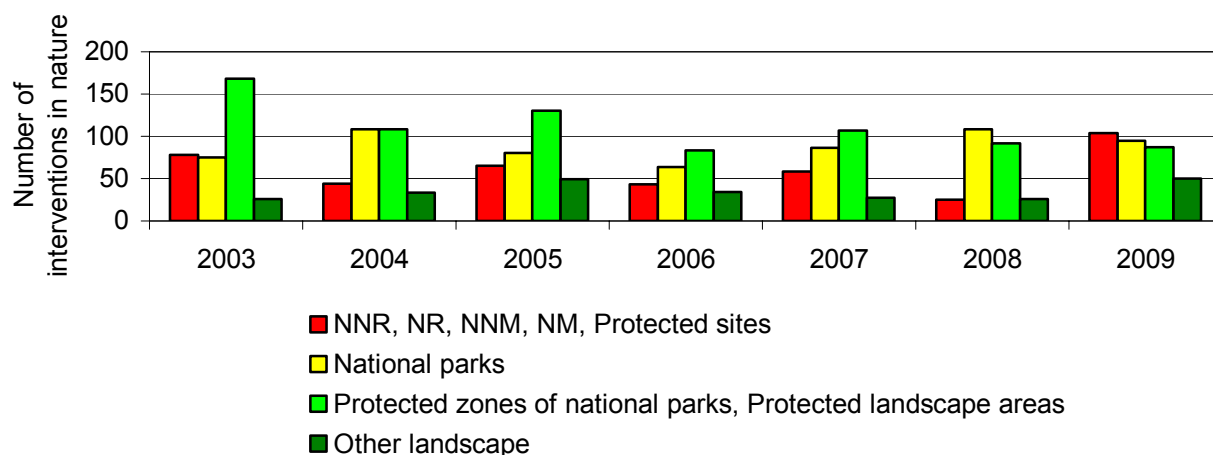
Indicator ([Environmental certifications of tourism enterprises and eco symbols for tourist destinations](#))

5.4.4.2. Number of interventions in nature and landscape and number of assessed intentions in terms of environmental impacts

The greatest amount of assessed interventions over the period 2004 – 2007 in terms of protected areas categories permanently falls upon protected zones of the national parks as well as the protected landscape areas and the national parks (strongly dominating are mostly TANAP, Low Tatra NP, Slovak Paradise NP and Malá Fatra NP), the least falls upon open-air landscape, whereas over the period 2006 – 2007, an increase of number of these interventions occurred, except open-air landscape. In 2008, on the contrary, a significant increase of number of assessed interventions occurred on territories of the national parks only, vice versa a significant decrease of these interventions occurred on territories of fourth and fifth level of nature protection (NNR, NR, NNM, NM, PA) and protected zones of the national parks as well as protected landscape areas.

In 2009, a very significant increase of these assessed interventions on the most valuable territories with fourth and fifth levels of nature protection occurred (NNR, NR, NNM, NM, PA). After a very significant increase of number of interventions related to tourism activities assessed in terms of environmental impact over the period of 2004 – 2008 a very significant decrease of their number occurred in 2009.

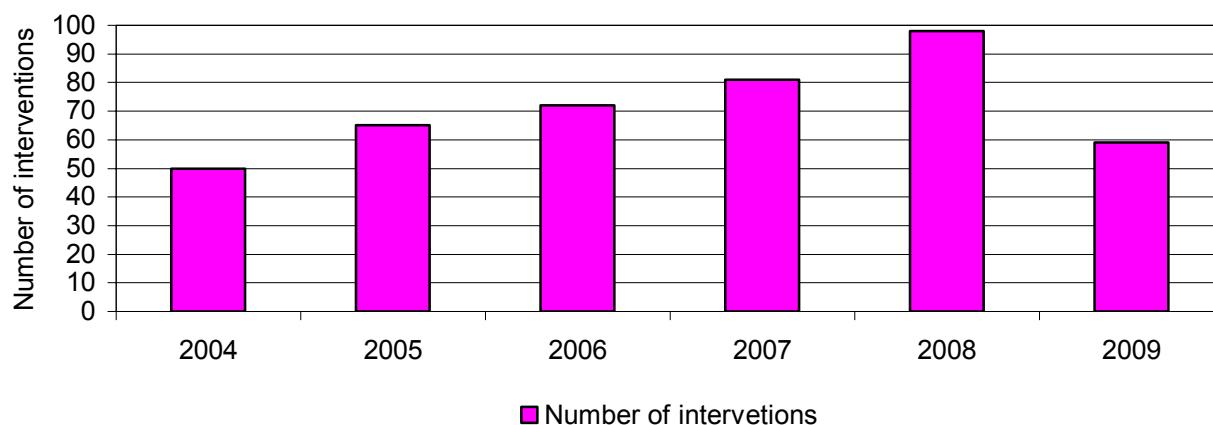
Number of interventions in nature and landscape related to tourism activities (number)



Source: ŠOP SR; Makes: SAŽP

Indicator [Number of interventions in nature and landscape and number of assessed interventions in terms of environmental impacts](#)

Number of interventions related to tourism activities assessed in terms of environmental impacts (number)



Source: MH SR; Makes: SAŽP

Indicator [Number of interventions in nature and landscape and number of assessed interventions in terms of environmental impacts](#)

6. Has been environmental efficiency of tourism improving in the Slovak Republic?

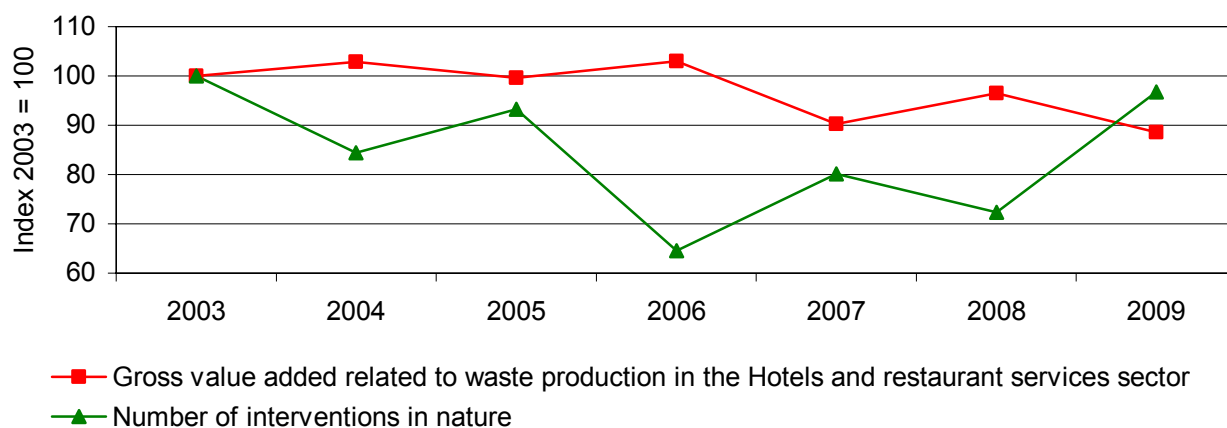
Currently the main problem of environmental policy is the fact that individual environmental problems are being solved separately without any respect of mutual relationships and reasons determining their impacts. Success of environmental policy implementation in the economic activity sectors can be described as correlation relationship amongst economic indicators of a respective sector (expressed by indicators GDP – gross domestic products or GVA – gross value added) and negative environmental indicators with negative environmental impacts (e.g. emissions evolutions of polluting substances emitted in the air, water, drawing of raw materials natural resources, energy and so on).

A respective sector of an economic activity becomes environmentally effective in case, if it's economic growth is ensured whilst minimizing its negative environmental impacts.

6.1. Environmental efficiency of tourism related to Number of interventions to nature and landscape

Due to the fact that currently valid Act No 543/2002 Coll. on Nature and Landscape Protection approved on 25 July 2002 and took effect as off 1 July 2003, there are no relevant and long-term methodologically and systematically monitored data on number of assessed interventions in nature and landscape by tourism activities impact available. That is why it is not possible to evaluate environmental efficiency of tourism in a relevant and full-value manner with respect to a number of interventions in nature and landscape. When comparing a level of Gross Value Added in the hotel and restaurant services sector with a number of assessed interventions in nature and landscape, partially unfavourable development over the period of 2003 – 2005 can be stated, when a greater growth of number of assessed interventions to nature and landscape compared to the amount of gross value added for Hotels and restaurant services sector occurred. On the contrary a positive turnaround of the given trend occurred over the period of 2005 – 2006, in 2007 a significantly negative one. In 2008, considerably positive development arrived, when a considerable increase of the Gross Value Added in the hotel and restaurant services sector and a slight decrease of a number of assessed interventions in nature and landscape have occurred. On the contrary in 2009, considerably negative development occurred having a slight decrease of Gross Value Added in the Hotel and restaurant services sector and very significant increase of assessed interventions in nature and landscape.

Environmental efficiency of tourism related to a number of interventions to nature and landscape (index 2003 = 100)

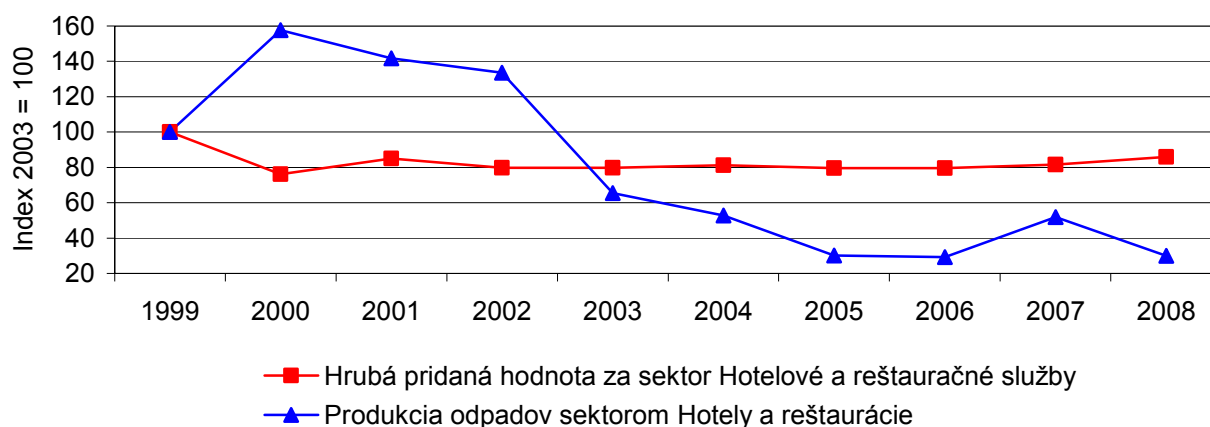


Source: ŠÚ SR, ŠOP SR; Makes: SAŽP

6.2. Environmental efficiency of tourism related to waste production in Accommodation and food services section

Data acquired through the Statistical Office of the SR by means of existing statistic survey on waste production by economic activities sectors (OKEČ /classification of sectors by economic activities/) including also the Hotel and restaurants sector were available in the Slovak Republic till 2007. Certain disadvantage of such statistic survey was the fact that hotels and restaurants being delimited reporting units do not cover all the economic entities undertaking in the area of tourism and equally such acquired data at the same time do not take into consideration seasonal differences of waste production. Since 2008, classification of economic activities by NACE subdivision for waste production has been introduced and one of the sections is the Section I – Accommodation and food services. The base of this change was a transfer of the Statistical office of the Slovak Republic to a revised classification of economic activities SK NACE Rev.2 currently providing a basic framework for a great amount of statistical data in the area of economic statistics. In mutual comparison of both classifications it is necessary to point out that an Item I Accommodation and food services in SK NACE Rev. 2 classification is methodology-wise as well as content-wise broader than Item H. Hotels and restaurants (55. Hotels and restaurants) subdivided by OKEČ. Due to different definitions of these items in both statistical classifications it is not possible to mutually compare such acquired data. When comparing a level of foreign currency earnings from the active inbound tourism and waste production in the hotel and restaurant services sector, favourable development could have been stated since 2000, when except 2007, a decrease of waster production has occurred and with exception over the period of 2002 – 2004, a very significant increase of earnings from active unbound tourism occurred. Due to the fact that hotels and restaurants being delimited reporting units do not cover all the economic entities undertaking in the area of tourism, environmental efficiency of present-day tourism in the Slovak Republic cannot be evaluated in a responsible manner with regard to waste production at this point.

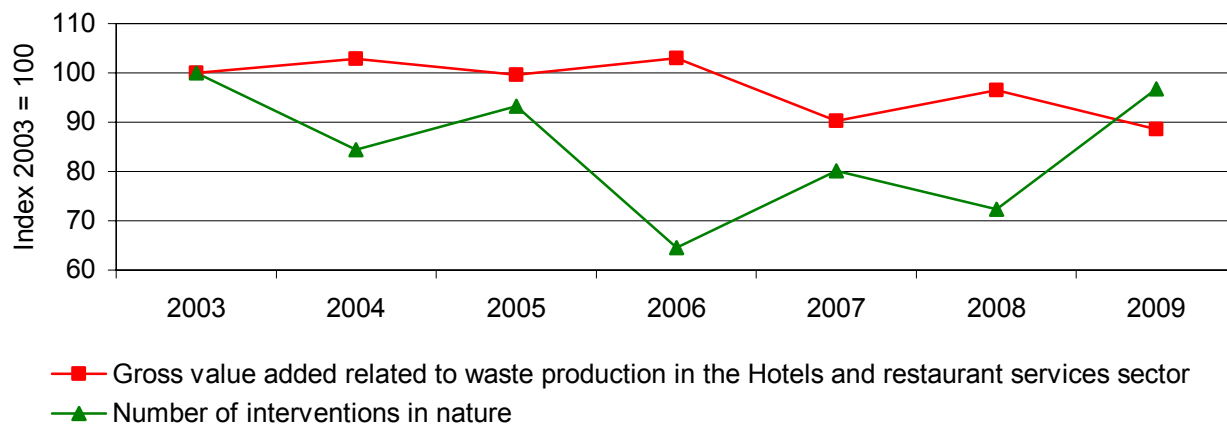
Environmental efficiency of tourism related to waste production in the Hotel and restaurant services sector (index 1999 = 100)



Source: ŠÚ SR, SAŽP; Makes: SAŽP

Indicator [Environmental efficiency of tourism with respect to waste production in Accommodation and Food Services Section](#)

Environmental efficiency of tourism related to waste production in accommodation and food services section (index 2009 = 100)



Source: ŠÚ SR, SAŽP; Makes: SAŽP

Indicator [Environmental efficiency of tourism with respect to waste production in Accommodation and Food Services Section](#)

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List of abbreviations

EEA	European environmental agency
EC	European community
EU	European union
DPSIR	D – driving force, P – pressure, S – state, I – impact, R – response
GDP	Gross domestic product
PLA	Protected landscape area
GVA	Gross value added
MDVaRR	Ministry of transport, construction and regional development of the Slovak republic
MH SR	Ministry of economy of the Slovak republic
MZ SR	Ministry of health SR of the Slovak republic
MŽP SR	Ministry of environment of the Slovak republic
NP	National park
NNM	National nature monument
NNR	Natural nature reservation
NR SR	National council of the Slovak republic
NNM	National nature monument
NM	Nature monument
NR	Nature reservation
PÚ SR	The monument board of the Slovak republic
SAŽP	Slovak environmental agency
SR	Slovak republic
SSC	Slovak road administration
ŠOP SR	State nature protection of the Slovak republic
ŠÚ SR	Statistical Office of the Slovak republic
WTO	World tourist organisation