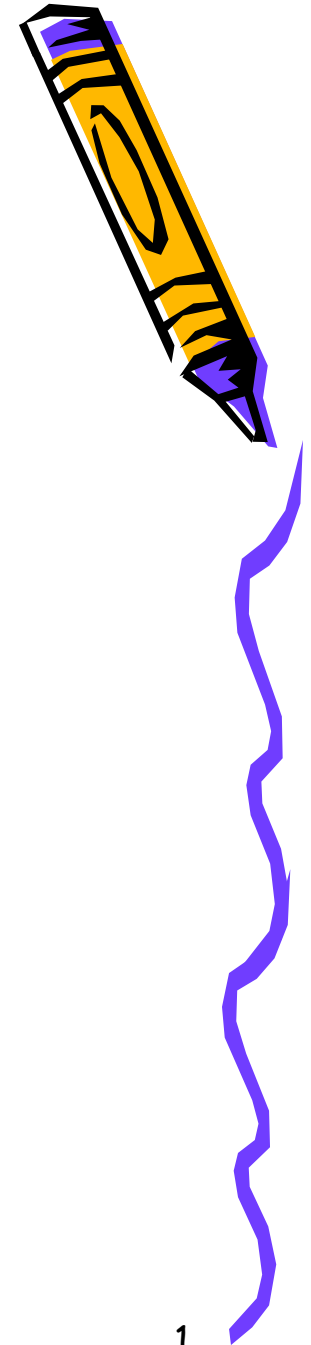


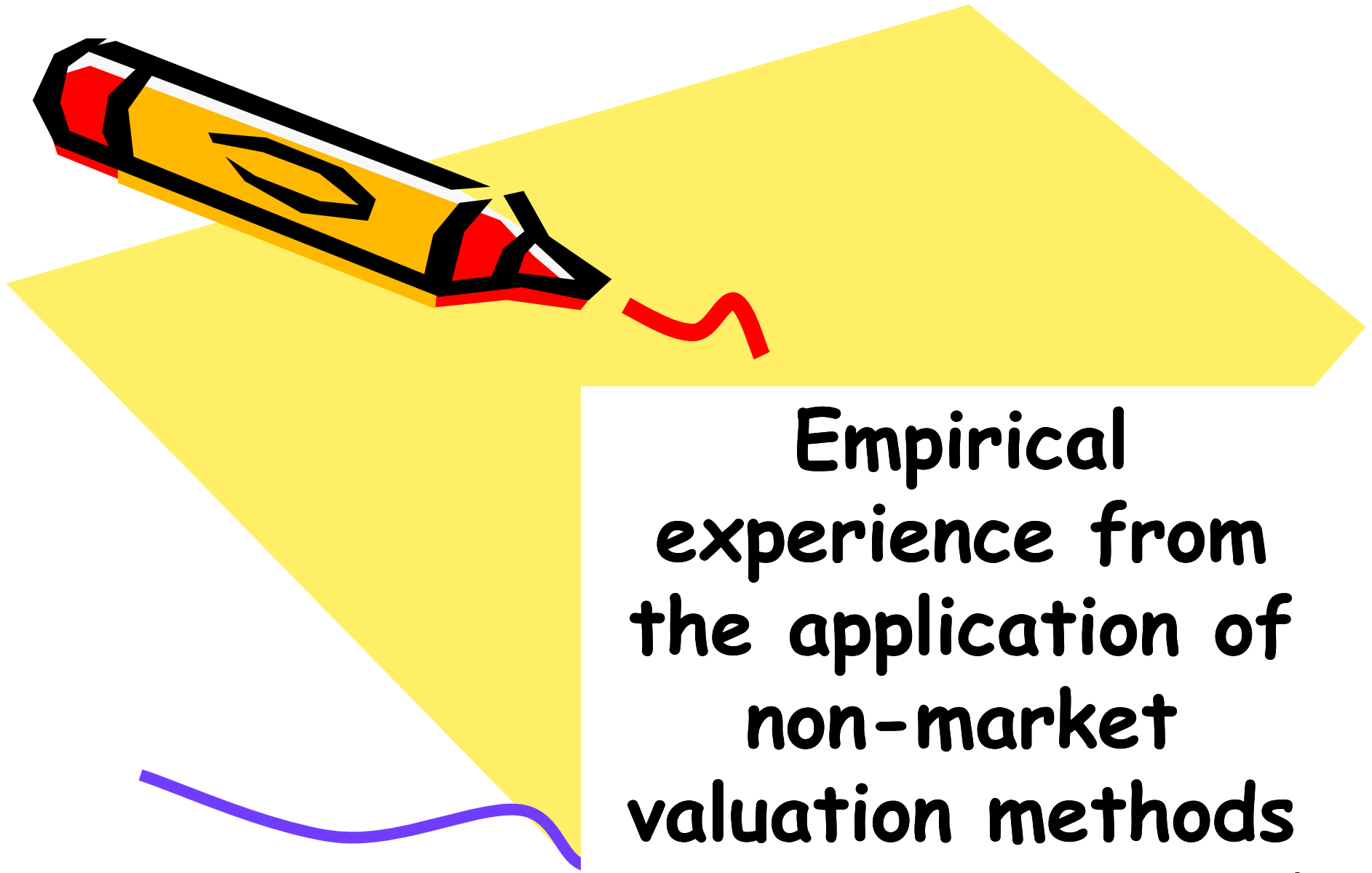


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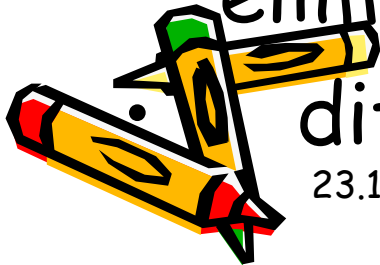
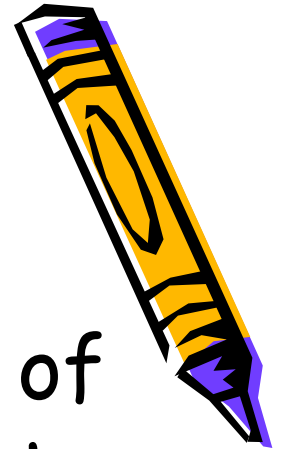


**Empirical
experience from
the application of
non-market
valuation methods
in Tatras National
Park**

23.1.2008

Expected results of the survey:

- to figure out the recreational value of the TANAP and visitors' willingness to pay an entrance fee to the TANAP
- internalization of externalities into the costs
- improvement of the regional planning and decision making
- elimination of tensions between different interest groups in the region



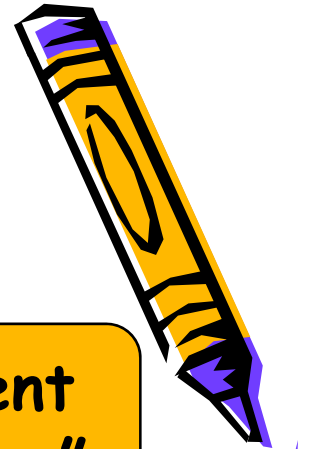
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**Economic and ecological
problems of the region**

infrastructural development
of the town "Vysoké Tatry"

economic exploitation
of the land (logging, hunting)

pressure on biodiversity
that cause degradation of biodiversity
and danger of extinction of rare species



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Methodology



conventional method:

- ➔ **Case Study Research**
qualitative techniques:
 - interviews
 - documentation
 - comparison
 - observations

alternative methods:

- ➔ **Contingent Valuation Method**
- ➔ **Conjoint Analysis**
- ➔ **Positional Analysis**



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Contingent Valuation Method

- highly significant and the most often used method of the non-market valuation based on hypothetical preferences
- respondents were asked to fill in an appropriate questionnaire, to express their willingness to pay for the environmental conservation
- WTP was solicited in a format of an open-ended questions



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Conjoint Analysis

- do not directly ask people to state their values in monetary interpretation form
- values are inferred from the hypothetical choices or trade-offs
- the contingent ranking technique was used in the survey



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Positional Analysis

- a complex valuation method based on an assessment of the economic impact of investment alternatives or alternatives of the future development in a particular region
- respondents were asked to express their preference for one group of environmental assets and services and choose the preferable scenario



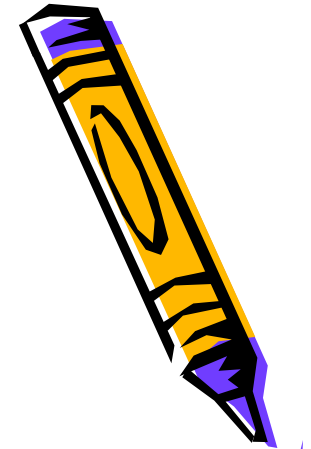
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Questionnaires

5 interest groups: visitors
residents
entrepreneurs + owners
municipality
state authority

Five sections of the questionnaire:

- I. Socio-demographic characteristics
- II. Economic activities in the locality and the corresponding environmental restrictions
- III. Protection of the environment versus economic interests in the region
- IV. Willingness to pay for the environment
- V. Application of the Conjoint and Positional Analysis



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Three qualitative research techniques have been used to fill in questionnaires:

- an interview face-to-face (48,4 %)
- a request to the interest groups to complete the questionnaires (46,1 %)
- distribution and collecting of questionnaires by the Management of the Tatras National Park (5,5 %)

The sample of asked respondents consisted of 1,000 adults with 653 questionnaires returned and correctly filled in.



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The results of the research will be fed into a number of econometric models and for each variable frequency analysis, standard deviation, mean, mode as well as an analysis of variance will be determined.

Detailed analyses are being prepared to solve the problematic issues concerning the economic activities in the locality and the corresponding environmental restrictions.

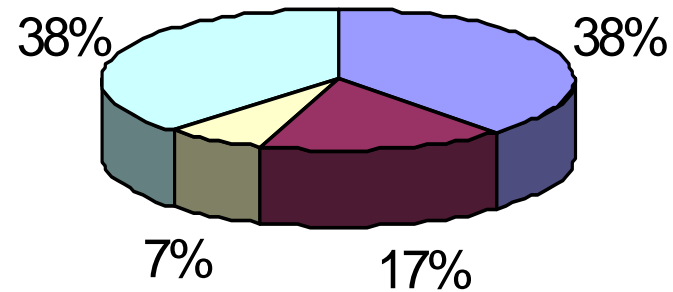
The final results are expected in February 2008.



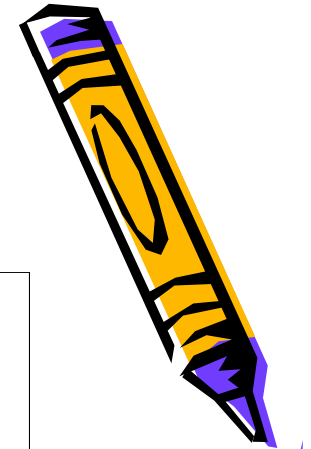
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PRELIMINARY FINDINGS (RESIDENTS)

Economic activities proposed to realise in
the region (residents)

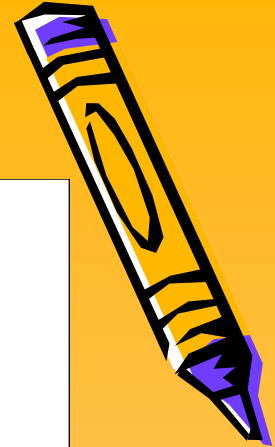
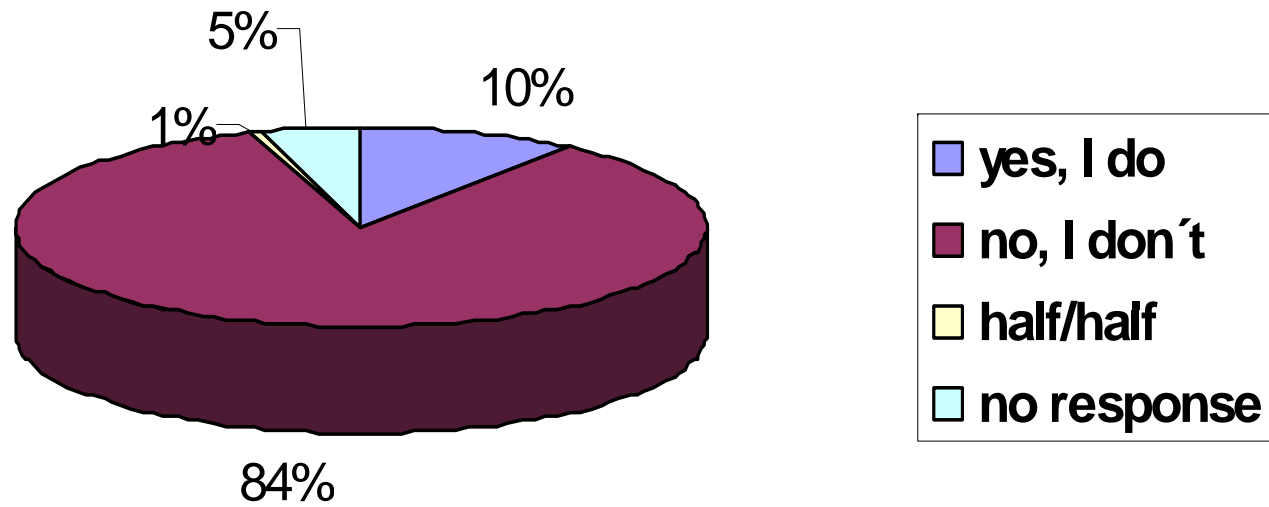


■ infrastructural modernisation ■ tourist industry
■ another ■ no response



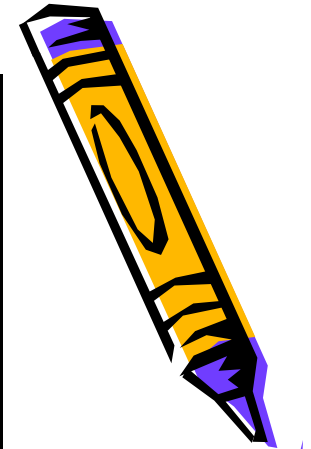
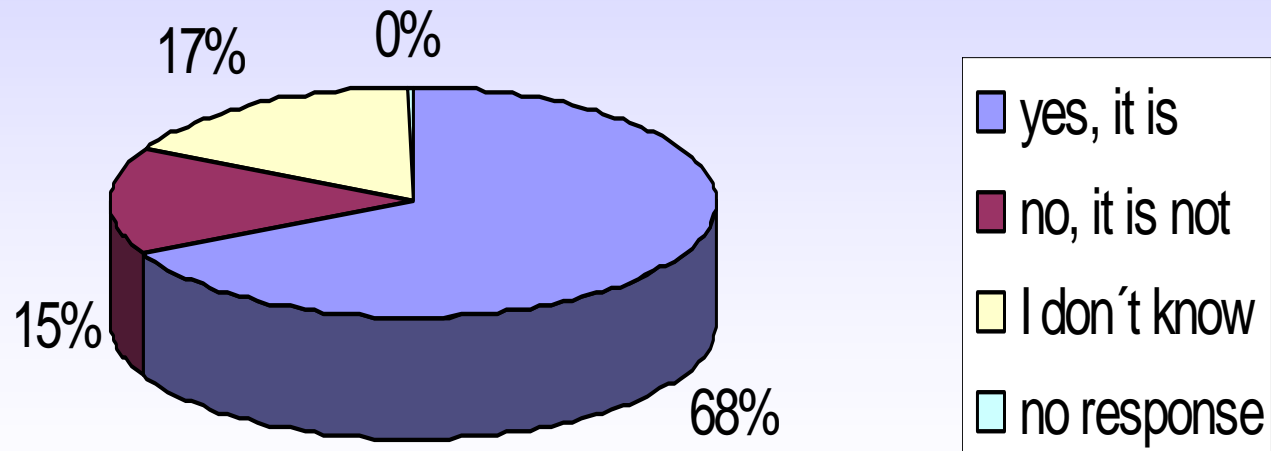
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Do you wish to cancel the National Park?



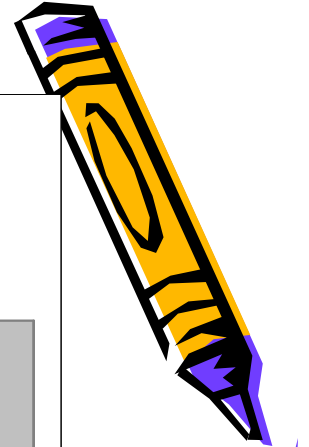
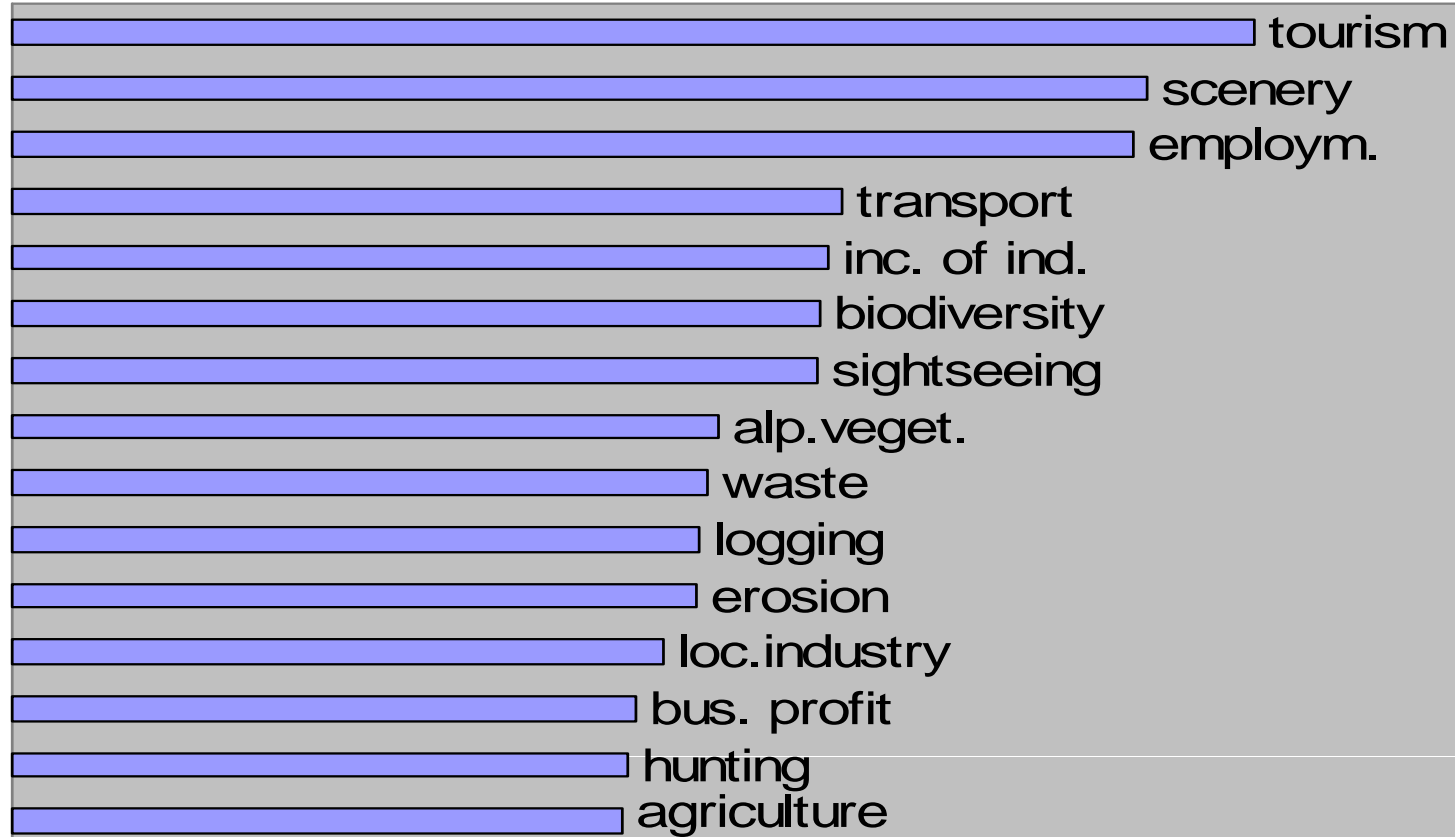
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Is it possible to make a profit and protect environment at the same time?



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Residents have ranked activities in the following order:



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VERIFICATION OF HYPOTHESES BASED ON THE OVERALL PRELIMINARY RESULTS

H1: The visitors' willingness to pay for the environmental preservation is low.

- Even though the visitors' willingness to pay for the better environmental conditions in the region is the lowest among all interest groups and has achieved only 50 % of the value declared by the residents (639 SKK), the value is sufficiently high.



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H2: State authority, municipality and residents have different points of view on the ecological development of the region.

-surprisingly there does not exist any cardinal disagreement among the state authority, municipality and residents over the ecological development of the region

- the majority of above-mentioned interest groups has an opinion that the protection and conservation of the environment have to be superior to the economic activities but only residents consider the present level of the protection as unsatisfactory

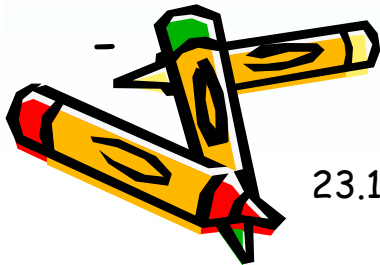


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H3: Residents prefer an economic development of the region to the environmental preservation.

-the biggest support has been given to the development of the tourist industry by the municipality as well as by residents

- groups have completely different views on the development and category of tourism. Whereas residents have declared their anxiety over the liquidation of sanatoriums and treatment centres for regular Slovak patients and travellers, representatives of municipality have agreed with entrepreneurs who prefer mass tourism, construction of new modern hotels, and the development
- of the extreme sport activities in the locality



H4: Interests of local enterprises are focused on economic activities without special attention being paid to the environment.

H5: Entrepreneurs are not interested to improve the environment in the locality because they are not permanent residents of the region.

-the interest of local enterprises is focused on economic activities without special attention being paid to the environment which is caused probably by the fact that the largest majority of entrepreneurs are not permanent residents of the region

- their WTP for the environment is high although
- they would invest contributed money into activities supporting their intentions

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CONCLUSION

➔ WTP for the better environment as well as respondents' willingness to actively participate in the problem solving concerning planning and decision making of the region is high



the applied methodology could be used to realize investment projects in the region that respondents are willing to support (e. g. construction of the shopping centre) by the implementation of regular monthly fees or by increasing real estate tax in the region, which will reversibly be used for the purpose of the project



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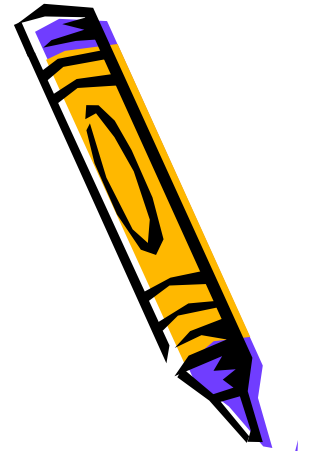
The total results of the research will become fundamental for the calculation of the recreational value of the TANAP and the Case Study Research, whose conclusions will be recommended for the implementation into the regional planning and decision making process.

This will be done through the internalization of externalities into the costs by the application of environmental tax or by adjusting already existing regional and local taxes and fees, which will be retrospectively used for the protection of the environment in the region.



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Thank you for your
attention 😊



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