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DANUBE  
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# STRENGTHENING CONSIDERATION OF WETLANDS IN THE RIVER BASIN MANAGEMENT PLANNING.

## FINAL REPORT FOR THE DANUBE REGIONAL PROJECT FUNDED NATIONAL CAMPAIGN IN SLOVAKIA.



WORKING FOR THE DANUBE AND ITS PEOPLE

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## PREFACE

From June 2006 till January 2007 DAPHNE – Institute of Applied Ecology from Slovakia, member of Danube Environmental Forum, organized a DRP funded national campaign to raise awareness of water managers on wetlands values and functions in Slovakia. These managers and decision-makers are the key persons which will be actually implementing or supervise the measures required under EU WFD. Inclusion of wetlands into river basin management thus largely depends on their awareness and knowledge.

To properly address the target group local experts from national Slovak Water Management Enterprise state enterprise, Slovak Hydro-Meteorological Institute and other local experts were invited to design project activities. The main activities included regional workshops where potential of wetlands in solving water related issues in the river basins was emphasized. The impact of campaign on the target group was measured through introductory and final survey done on the sample representatives of the target group.

The campaign also succeeded to identify obstacles for better incorporating wetlands management into integrated river basin management. The results and findings were discussed on final workshop with responsible representatives of the Slovak Ministry of Environment.



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## ABBREVIATIONS

CO	County Office (for Environment)
DEF	Danube Environmental Forum
DO	District Office (for Environment)
DRB	Danube River Basin
DRP	Danube Regional Project
EU	European Union
EU WFD	EU Water Framework Directive
GEF	Global Environment Facility
ICPDR	International Commission for the Protection of the Danube River
MoE	Ministry of Environment of the Slovak Republic
RBD	River Basin District
RBM	River Basin Management
SHMI	Slovak Hydro-Meteorological Institute
SNC	State Nature Conservancy of the Slovak Republic
SWE	Slovak Water Management Enterprise
UNDP	United Nations Development Programme

## EXECUTIVE SUMMARY

DAPHNE – Institute of Applied Ecology has organized a DRP-funded campaign to raise awareness about the importance of wetlands in river basin management (RBM) in Slovakia. It was linked to the “International Wetlands Campaign” of the Danube Environmental Forum (DEF) which includes DAPHNE as a member. Campaign was targeted on regional and local decision-makers and water managers. It began with evaluation of current perception of wetlands within the target group. The survey done on 100 representatives of the target group shown, that majority – 93% of respondents were aware of any importance of wetlands, however only minority was aware of any socio-economic importance of wetlands (except nature protection). Majority of respondents could not refer to any concrete example where wetlands help to solve problems within RBM.

To improve the situation 10 workshops were organized throughout Slovakia. The workshops covered all river basins of Slovakia and provided sharing of knowledge between nature conservationists and the water managers. Through the seminars the water managers obtained information about the values and functions of wetlands and their particular presence in the river basins of Slovakia. Except these, participants obtained also basic information about the current schedule and development on the Water Framework Directive implementation with regard to River Basin Management Plans elaboration which starts in 2007. Examples of successful projects where wetlands were included into the RBM were also presented.

Altogether 289 participants took part on 10 workshops, which include 122 representatives from Slovak Water Management Enterprise, 41 participants from State Nature Conservancy and 82 local decision-makers.

The workshops enabled discussions between important stakeholder groups in the river basins about local ‘wetland issues’. They succeeded to identify some barriers in better incorporating wetlands into RBM. Among other issues, conflicts within legislation, lack of communication and coordination between relevant actors within the river basins, complicated landownership and insufficient funding were identified.

The results of the survey undertaken by the end of the campaign on the 100 representatives of the target group shown, that their awareness on wetlands significantly improved. They know better what can be regarded as wetland (98% in Dec. '06 in comparison with 87% in Sept. '06) and their perception of hydrological importance of wetlands increased (eg. water retention function mentioned in 62 answers in Dec. '06 in comparison with 23 answers in Sept. '06).

# 1. PROJECT SCOPE AND ORGANISATION

DAPHNE – Institute of Applied Ecology from Slovakia received funding from UNDP GEF Danube Regional Project for the national campaign on encouraging implementation of the Water Framework Directive and promoting role of wetlands in this process. The campaign was also meant as part of the Danube Environmental Forum's (DEF) international campaign on wetlands, which includes DAPHNE as one of the member organisations.

## 1.1. Project background

Integration of needs and demands of different sectors into the planning and execution of the river basin management is an actual task arising from the Water Framework Directive implementation. It requires a lot of efforts from all interested stakeholders, proper coordination, adequate and relevant and timely information on the process, goals and possibilities of the integrated river basin management. By the end of 2006 the timeline and the action plan for the production of the river basin management plans is to be published, elaboration will start next year. River basin management plan will be in certain extent a compromise between demands of different sectors. However it should respect, not contradict the ecology of the river basin, as the key requirement of the WFD. The ecological status of the river basin largely depends on the status of the water bodies and associated aquatic and terrestrial ecosystems including wetlands of different types.

While the river basin management plans elaboration will be coordinated by the Slovak Ministry of Environment, water managers, state administration officers and self-governments in the river basins will actually provide their day-to-day implementation. Their knowledge of needs and possibilities for inclusion of wetlands into river basin management is actually insufficient. On the other hand there are specialists within the State Nature Conservancy the Slovak Republic, which have good knowledge and experience with the wetland management. These on the other hand lack information on the river basin management planning and their possible participation. There is certainly some tension between two groups from the past conflicts, misunderstanding and lack of communication. Their cooperation is however inevitable for the success of the integrated river basin management.

### 1.1.1. Goals of the campaign

The goals of the campaign were set up as follows:

- > Raise awareness on the role of wetlands in the river basin management among water managers and representatives of state administration and self-government (regional and local decision-makers);
- > Demonstrate examples of wetland restoration and using wetlands in the river basin management in solving issues such as flood protection, erosion control, etc. in specific projects;
- > Identify problems and barriers avoiding inclusion of wetlands into the river basin management and propose possible solutions to improve the situation;
- > Raise awareness of the water managers, state administration and self-government representatives (regional and local decision-makers) and nature conservancy managers on the process, tasks, responsibilities and participation possibilities in the river basin management planning from 2007 onwards.

### 1.1.2. Target groups

The target groups of the campaign were the water managers, state water management administration officers, regional and local self-government representatives and representatives of state nature conservancy and state administration officers responsible for nature conservation. Involvement of last two groups was decided upon advice of the water managers, as the campaign should serve not only awareness raising but also catalysing discussion on wetland needs and problems in each of the river basins in Slovakia.

### 1.1.3. Expected outcomes

The campaign expected the following outcomes to be achieved:

- > water managers, representatives of state administration and self-governments (regional and local decision-makers) and nature conservancy managers aware of the WFD implementation and willing to participate in the process;
- > water managers and representatives of state administration and self-governments (regional and local decision-makers) recognise the importance and role of wetlands in general and specifically in the river basin management;
- > barriers and possible solutions to the above identified.

### 1.1.4. Project timeline

The project duration was June 2006 – January 2007. This report refers to entire project implementation period. The project inception phase encompassed June – July 2006. The real timeline of activities' implementation was as follows:

**Table 1 Project timeline**

Activity	Month						
	July	August	September	October	November	December	January
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							

## **1.2. Project inception and organisation**

In order to form a basis for the project implementation, two working meeting took place in June and July 2006 with the representatives of Ministry of Environment, Slovak Water Management Enterprise (SWE) and Slovak Hydro-Meteorological Institute (SHMI). On the first meeting it was agreed with the representative of the Ministry of Environment, that the campaign can not be officially supported by the MoE as this might imply financial expectations from the regional and district administrations (reimbursement of travel costs) and also the views on the WFD implementation in Slovakia as they will be presented could be different from the official opinion of the ministry. It was agreed the project will co-operate with the ministerial working group for public participation in WFD. Also few proposed changes were incorporated to the project design.

Second meeting included meeting with the Vice-Director of the Slovak Water Management Enterprise and the General Director of the Slovak Hydro-Meteorological Institute. Both organisations play important role in WFD implementation in Slovakia. Both high level representatives expressed their support for the campaign and offered organisational and technical assistance for project activities, especially for the organisation and funding of workshops. Thus the SWE provided space for 8 out of 10 workshops free of charge and SHMI provided funding for refreshment and space renting for the remaining 2 workshops.

Further co-operation on the project/campaign has been created with the UNDP GEF project Conservation, Restoration and Wise Use of Rich Fens in the Slovak Republic. This project supported involvement and inputs from the State Nature Conservancy experts and experts of the Slovak Technical University to the workshops.

## **2. REPORT ON PROJECT ACTIVITIES**

### **2.1. Project activities**

#### **2.1.1. Production of introductory questionnaire on the awareness concerning the WFD and the role of wetlands**

The questionnaire for the introductory survey on campaign's target audience concerning their awareness on wetlands and the Water Framework Directive was prepared. The draft questionnaire was commented by the project partners in Slovakia (SWE, SHMI) as well as by the DRP experts. The proposed changes were reflected in the final version of the questionnaire which was used for the phone interviews (Annex 1).

#### **2.1.2. Organising phone interviews with the representatives of the target audience**

During September 2006 the introductory survey on 105 representatives of the target group was organised via phone interviews. The sample of respondents included already pre-selected representatives of the Slovak Water Management Agency, furthermore the regional and district water management officers and representatives of regional and local self-governments, which should be later on invited to the workshops. Information was provided altogether by 100 respondents, remaining 5 refused the interview.

### **2.1.3. Processing and evaluation of gathered data**

Data gathered from respondents through phone interviews was processed and analysed using basic statistics. The results show that 93% of respondents are aware of any importance of wetlands, however only minority is aware of any socio-economic importance of wetlands (any except nature protection). For example, only 23% of respondents named the water retention function as important feature of the wetlands. Also only 10% of respondents could refer to any concrete example where wetlands helped to solve water related problems within the River Basin Management. On the other hand majority of 79% respondents think that wetland management should be part of the River Basin Management, 10% of respondents could not take concrete attitude in this issue and 11% disagreed to include wetland management into the RBM as they believe this is more responsibility of nature conservancy. More detailed description of the survey's results is provided in separate report (Annex 2).

### **2.1.4. Organising press event on the WFD and the role of wetlands, goals and activities of the project and findings of the introductory survey**

The press event was originally planned for September 2006. Due to time pressure with preparation of workshops the press event was postponed until 26<sup>th</sup> October 2006. It was planned the press event will include excursion into hydro-technical laboratories of the Water Research Institute in Bratislava, where functional 3D model of the Morava River Floodplain can be shown. The e-mail invitations to the event were sent out to approximately 20 pre-selected journalists interested in environmental issues. The press release to the event was sent out on the same day. However the topic was perhaps not so attractive and only one journalist came for the event. However the final press conference was more successful and few journalists contacted the project team also afterwards with requests for interview.

### **2.1.5. Production of brochure on the role of wetlands in the WFD implementation**

It was planned within the project to produce Slovak version of DEF brochure on the role of wetlands in the RBM. The translation of the draft text was prepared already in June 2006 but as the English master copy has been revised until December 2006, the Slovak version has been prepared for printing only in 2007. The brochure in electronic version (.pdf) is attached to report as Annex 3.

### **2.1.6. Organising workshops for target groups - water managers, state administration and self-government representatives (regional and local decision-makers) and nature conservancy managers**

Workshops for the target group were the key activity of the wetlands awareness raising campaign. As it was agreed on the preparatory meetings with national project partners, the campaign consisted of 10 workshops.

Inevitable support for the preparation and organisation of the workshops provided the Slovak Water Management Enterprise. Directorate of the company provided pre-selection of participants from the company for each of the workshops and distributed the first information about the project to the River Basin District organisational units of the company. These further provided assistance in booking the space for workshops (SWE provided facilities for 8 out of 10 workshops free of charge), organising local catering and furthermore also specific input to the workshop programme. Headquarters of the State Nature Conservancy of the Slovak Republic encouraged participation and input into workshop programme from its organisation units as well

supported also by the UNDP GEF project "Conservation, Restoration and Wise Use of Rich Fens in the Slovak Republic". Slovak Hydro-Meteorological Institute also assisted in organisation of the workshops. It has organised and funded 2 out of 10 workshops. Experts of SHMI also contributed to the workshop programme.

### 2.1.6.1. Workshop programme

The model programme which was used in all workshops is presented in the following table. The programme was adapted to local circumstances while including information on local wetlands presented by SNC experts, presentation of most relevant model project for inclusion of wetlands into the RBM and also experience of the water managers with wetland management presented on few workshops.

**Table 2 Workshop programme**

<b>9:30</b>	<b>Arrival and registration of participants</b>
<b>10:00</b>	<b>Welcome and opening of the workshop, aims and programme of the workshop.</b> Milan Janak, DAPHNE – Institute of Applied Ecology Boris Minarik, Slovak Hydro-Meteorological Institute
<b>10:10</b>	<b>Wetlands, their values and functions</b> Milan Janak, DAPHNE – Institute of Applied Ecology <i>Questions and discussion</i>
<b>10:30</b>	<b>Water Framework Directive – goals, tools, timeframe and national implementation strategy</b> Boris Minarik, Slovak Hydro-Meteorological Institute <i>Questions and discussion</i>
<b>10:50</b>	<b>Role of wetlands in the WFD and the Integrated River Basin Management</b> Milan Janak, DAPHNE – Institute of Applied Ecology <i>Questions and discussion</i>
<b>11:10</b>	<b>Distribution and diversity of wetlands in the (respective) River Basin District – their status, management, requirements, etc.</b> State Nature Conservancy of the Slovak Republic <i>Questions and discussion</i>
<b>11:30</b>	<b>Considering needs of wetlands and their potential in solving major water management issues in the river basin (erosion control, flood protection, nutrient limitation, etc.) – presentation of successful project examples**</b> <i>Questions and discussion</i>
<b>12:30</b>	<b>Discussion: Considering needs of wetlands and their potential in solving major water management issues in the river basin; identification of obstacles and possible solutions</b> all partners
<b>13:00</b>	<b>Conclusions and closing of the workshop</b>

\*\*In this place one or more of the following specific presentations were given:

- > Integrated Land Use and Management of Wetlands – Pilot project in the Village Olsavica (Levoca county) – UNDP GEF Danube Regional Project
- > Integration of principles a practices of ecological management in the landscape and water resources management on the East-Slovakian Lowland (Senne area) – UNDP GEF project proposal
- > Revitalisation of the upper Vah River especially for helping migration of fish through barriers in the river bed – State Nature Conservancy and partners
- > Conservation by Restoration: Strategy and Management for a River-Floodplain on the Lower Morava River - Water Research Institute – Slovak Science and Technology Assistance Agency funded project
- > Restoration of Water Conditions in Sur Fen Nature Reserve – LIFE III Nature project
- > Experience of the Slovak Water Management Enterprise (SWE) with wetlands' management

### 2.1.6.2. Summary of workshops attendance

Within October and early November 2006 10 workshops took place throughout Slovakia. Altogether 289 participants take part on the workshops. The mixed audience comprised of the water managers, decision-makers and the conservationists. Number of each stakeholder group representatives present on workshops is summarized in the following table. The original attendance lists for each workshop, signed by participants, are available in hard copy or as images in electronic version.

**Table 3 Summary of workshop participation**

Location	Date	Number of participants				
		SWE	SNC	Regional and local decision-makers	others	TOTAL
Velka Trna	3.10.2006	14	5	3	6	28
Kosice	4.10.2006	15	0	11	6	32
Poprad	5.10.2006	8	7	3	6	24
Ruzina	17.10.2006	12	4	2	3	21
Banska Bystrica	18.10.2006	17	6	6	4	33
Ruzomberok	19.10.2006	11	5	7	5	28
Piestany	20.10.2006	11	5	25	2	43
Nitra	31.10.2006	13	3	14	3	33
Bratislava	2.11.2006	16	4	6	5	31
Malacky	3.11.2006	5	2	5	4	16
<b>TOTAL</b>	<b>10</b>	<b>122</b>	<b>41</b>	<b>82</b>	<b>44</b>	<b>289</b>

### 2.1.6.3. Summary of discussions at the workshops

One of the aims of the project was also to identify barriers for better inclusion of wetland issues into RBM. The mixed workshop audience of water managers, regional and local decision-makers and the conservation managers has proven to be appropriate for discussions on the workshops.

Briefly summarizing, the most discussed issues included conflicts within legislation, lack of communication and coordination between relevant actors within the RBD, complicated landownership, insufficient funding, insufficient human resources which is connected also with lack of information, training and awareness. These issues repeatedly appeared to hamper the most an effective inclusion of wetlands in the RBM or vice versa the wise use of wetlands. On some workshops unsolved problems from the past, conflicts, misunderstanding and lack of or unwillingness to communication between water managers and conservation managers appears to be a significant issue.

Similarly these obstacles were identified by the survey done among the water managers after workshops (see activity 2.1.9).

**Figure 1 Picture from the workshop in Ruzomberok**



The workshop held on 19<sup>th</sup> October 2006 in Ruzomberok at the Vah River Catchment Administration's Office. Proposed project "Revitalisation of the upper Vah River" is being presented by local experts.

**Figure 2 Picture from the workshop in Piestany**



The workshop held on 20<sup>th</sup> October 2006 in Piestany at the Vah River Catchment Administration's Office. The model project "Integrated Land Use and Management of Wetlands – Pilot project in the Village Olsavica" is being presented by DAPHNE expert.

### **2.1.7. Production of questionnaire to evaluate success of the campaign**

Similarly as the questionnaire for the introductory survey the questionnaire was prepared to evaluate the success of the campaign. It was planned to be used for the same target audience - the water managers and regional and local decision-makers. The draft questionnaire was commented by the project partners in Slovakia (SWE, SHMI) as well as by the DRP experts. The proposed changes were reflected in the final version of the questionnaire which was used for the phone interviews (Annex 4).

### **2.1.8. Organising phone interviews with the representatives of the target audience**

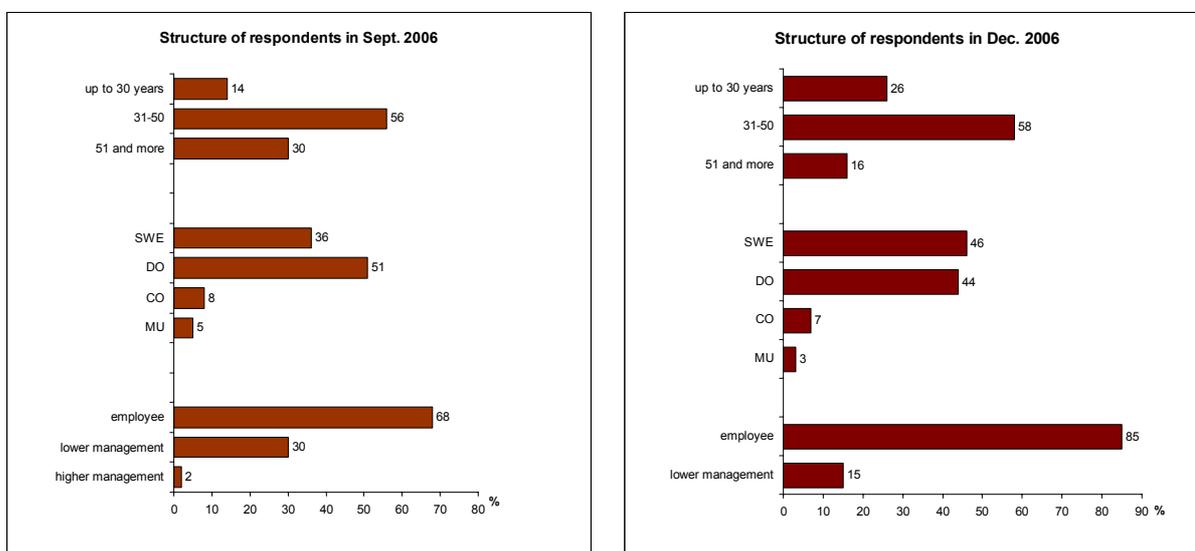
Though during the project implementation the option for distributing and collecting of questionnaires on the workshops has been considered, the survey was finally undertaken as it was originally planned, via the phone interviews with workshop participants. This option however put more effort on the project team as the other option, but on the other hand using the same methodology for the introductory and the final survey provides better basis for comparison of the target group before and after the campaign.

Phone interview for the final survey were actually done during December 2006. Altogether 100 respondents provided information to the survey. All interviewees took part on some of the workshops. The group consisted mainly from water manager of SWE, state administration officers from county and district offices (regional and local decision-makers) and few representatives of municipalities.

### 2.1.9. Processing of data and evaluation of campaign's success – comparing status before and after project implementation

Structure of the questionnaire for the final survey was designed with regard to allow comparison of results of the introductory survey made in September 2006 and the final survey from December 2006. The following figures allow making such comparison.

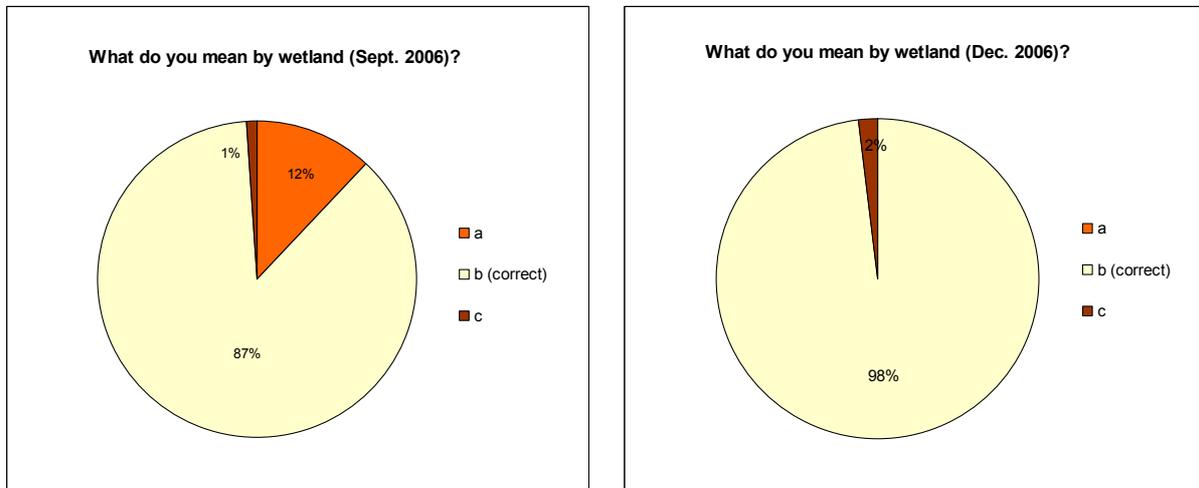
**Figure 3 Comparison of survey sample structure with regard to age, organisation and position**



Comparison of survey sample structure with regard to age, organisation and position.

The Figure 3 shows structure of respondents with regard to age, organisation and position. In both the introductory survey and the final survey the age structure of respondents was very similar, although there were more respondents with age of 51 and more. However in both surveys the group of respondents in age 31-50 represented more than 50%. The structure of respondents according to organisation was also very similar in both surveys. Although in September there were more District Office managers (51) and slightly less SWE managers (36) and in December the two groups were almost of the same number (46 SWE managers and 44 DO managers). Concerning the position of respondents in both samples the group of employees prevailed, however in December there were more of them (85 in comparison to 68 in September). In September survey there were however more respondents in position of lower management (heads of departments, etc.) and also few higher managers (directors and vice-directors). This information was however included here only for illustration purposes. It was not used for later detailed analysis of other answers.

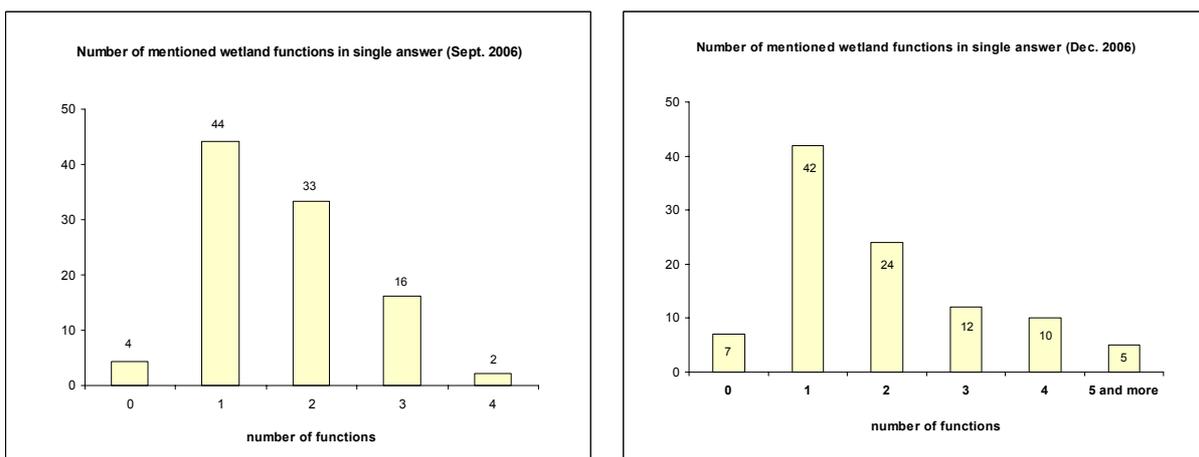
**Figure 4 Comparison of answers for the question regarding definition of wetland**



Comparison of answers for the question regarding definition of wetland. Options were: a) wet, unusable area, which has to be carefully ameliorated before any use; b) area with permanent or temporary, standing or flowing water, as for example a marsh, fen, peatland, stream, lake etc.; c) other

One of the basic questions included in the survey was the question revealing the understanding of wetlands among the target group, but also general perception of usefulness of wetlands (are wetlands only 'unusable areas?'). It is very positive that already at the beginning of campaign 87% of respondents have identified with the correct definition of wetland, but there were also 12% which regarded wetlands as unusable areas. In December 2006 after activities of the campaign there were no answers of "wetlands = unusable areas" and thus the number of correct answers increased up to 98%. This is a very positive result of the campaign.

**Figure 5 Number of mentioned wetland functions in single answer**

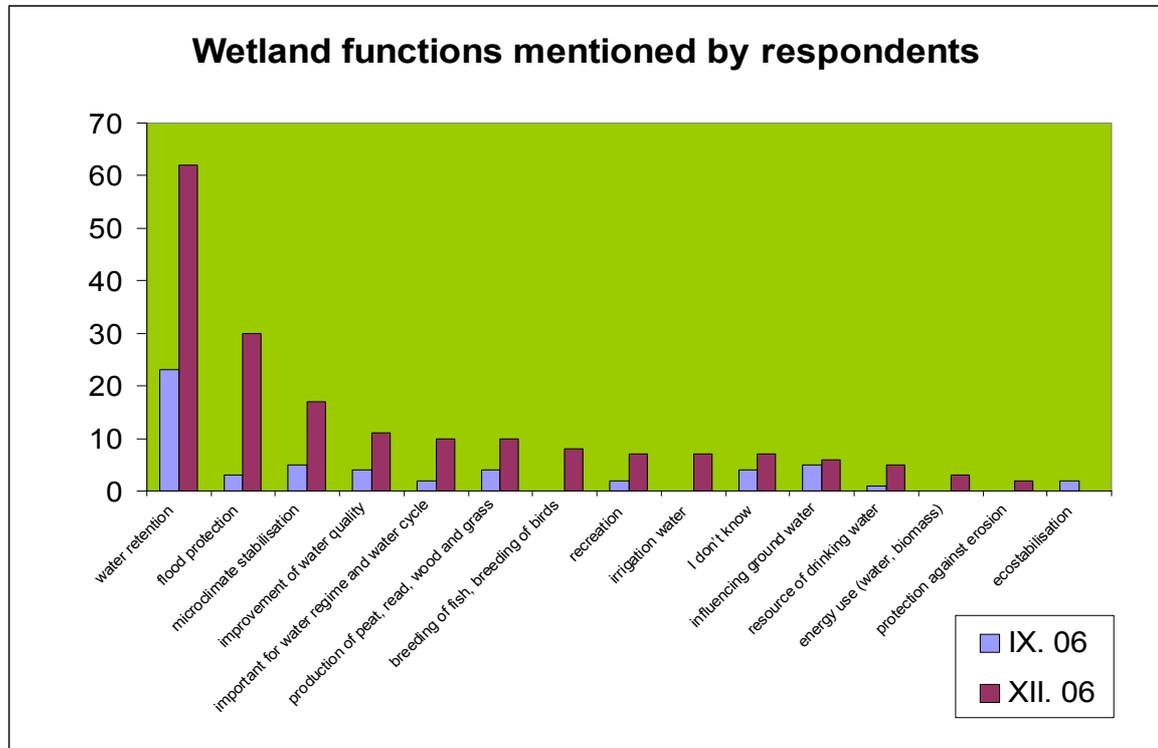


Respondents were asked to mention at least 3 important functions of wetlands.

Figure 5 shows how many respondents were able to mention at least 3 (but also less) important wetland functions in September and December 2006. The results show that most of the respondents were able to mention at least 1 important wetland however only 17% were able to mention 3 or more functions of wetlands. In December 2006 the group of respondent, which

mentioned only 1 function stayed almost on the same size (42% in comparison to 44% from Sept. 2006), however there were 27% of respondents able to mention 3 or more (even more than 5!) important wetland functions in December 2006.

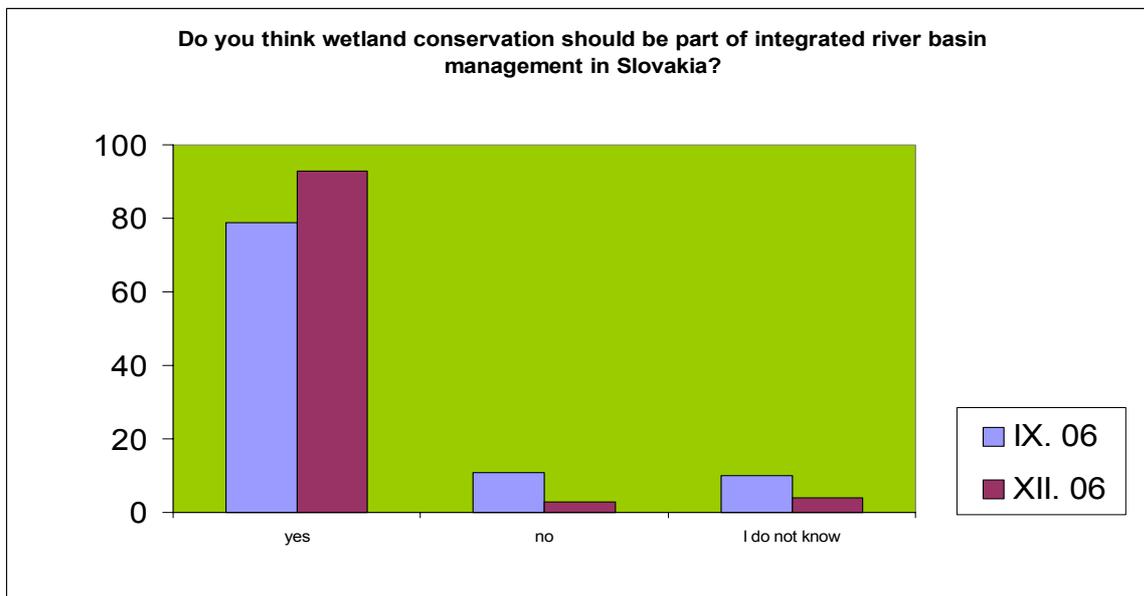
**Figure 6 Overview of mentioned wetland functions in single answers**



Comparison of mentioned wetland functions in single answers in Sept. and Dec. 2006.

The Figure 6 illustrates even better the impact of the campaign. In September 2006 the most frequently mentioned important function of wetlands was maintenance of biodiversity (56 answers; it is not shown on the graph). From the economic functions the water retention was mentioned 23 times. Every other function was during the introductory survey mentioned by less than 10 respondents (occurs in the results less than 10 times). By the end of the campaign in December 2006 the water retention function was mentioned 62 times and other 5 wetland functions were mentioned by more than 10 respondents. This increase of awareness on important wetland functions is nicely shown on the figure.

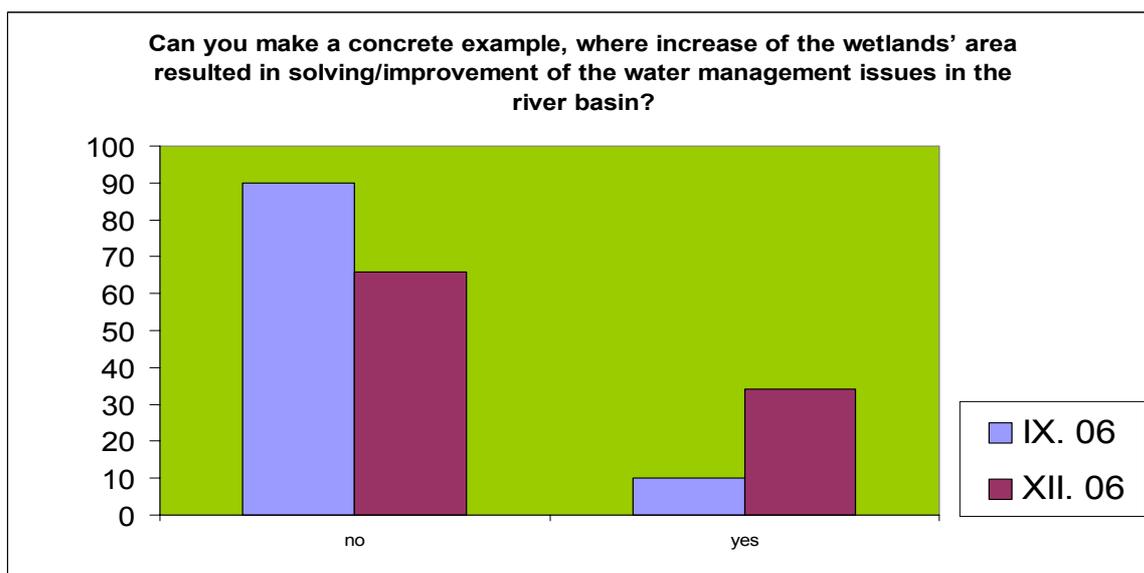
**Figure 7 Opinion of respondents on inclusion of wetlands into RBM in Slovakia**



Comparison of results from Sept. and Dec. 2006.

Figure 7 shows comparison of perception of inclusion of wetlands management into the overall river basin management. It is shown, that already before the campaign 79% of respondents thought about wetlands as integral part of river basin management, however the remaining 21% disagreed or could not make up their minds. In December 2006 there were only 7% of such respondents those either disagreed to include wetlands into RBM or do not know to answer. In December 2006 the group of respondents which agree to include wetlands in RBM constituted 93%, which means increase by 14%.

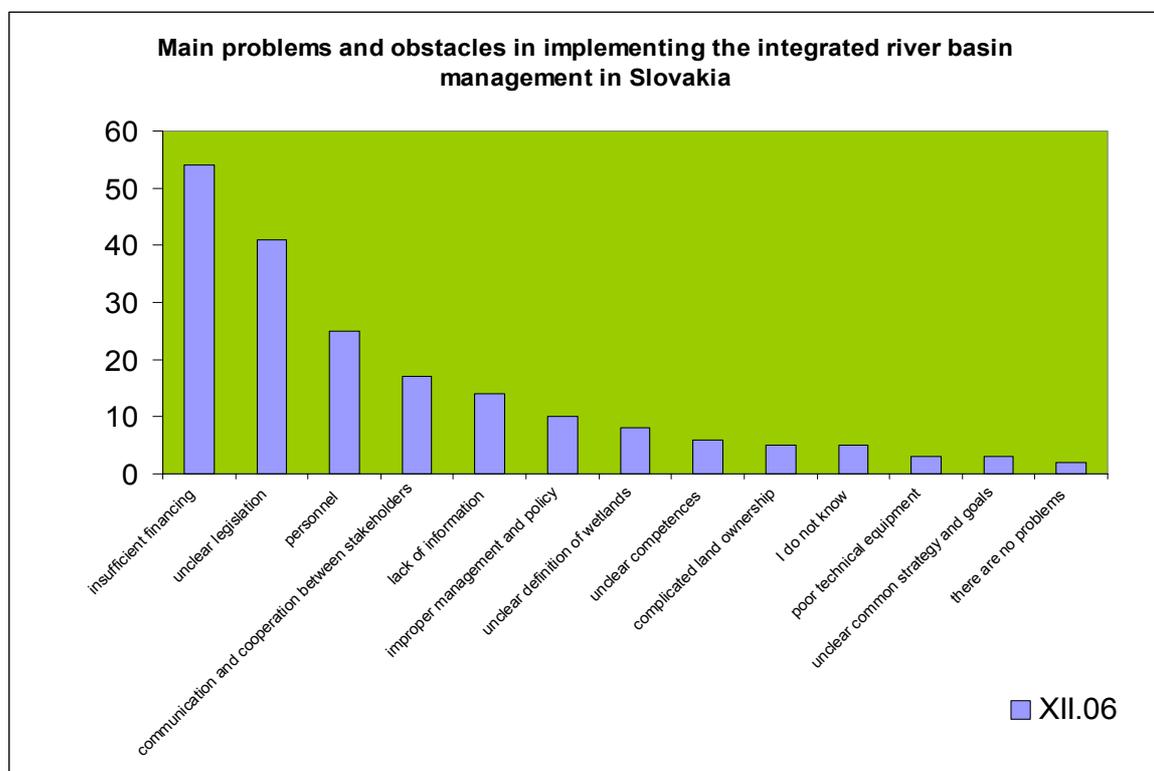
**Figure 8 Awareness on practical use of wetlands for improvement of water issues in the river basins**



Comparison of results from Sept. and Dec. 2006.

With the campaign we also tried to illustrate the potential of wetlands in solving water management issues on concrete examples of successful projects. That is why we asked respondents to mention such concrete examples within the surveys. In September 2006 there were only 10% of respondents able to mention such positive examples while, in December 2006 this number increased up to 34%. However in December 2006 there still remained 66% of respondents unable to mention such concrete positive example of wetlands management. Considering the fact that for the final survey in December 2006 we have asked only respondents those took part on some of the workshop this still seems to be high portion of not convinced target group. This result might be explained by fact that most of presented project examples were emphasizing river basin ecology and thus for the water managers (rather technicians) the link between the benefits of wetlands restoration and improvement of the RBM is not so explicit. Using of different terminology might be also an obstacle in better understanding of the issue. Changing of this status however remains as challenge for the future.

**Figure 9 Identified problems and obstacles in implementing integrated river basin management in Slovakia.**



Results from Dec. 2006.

Another aim of the campaign was to identify obstacles in implementing the integrated river basin management in Slovakia. Few problems were already identified during the workshops. To prove the impression from the workshop discussions and maybe to find out the opinion of maybe also some less pro-active members of the target group we have included into the final survey the question concerning the perceived problems and obstacles in the RBM in Slovakia. The results show, that more than insufficient funding was the most mentioned obstacle for integrated RBM in Slovakia. Unclear or somehow even contradicting law was also regarded as significant problem. It was mentioned 41 times by respondents and it was also frequently discussed during the workshops. Lack of (trained) personnel, lack of communication and cooperation between stakeholders, lack of information and improper management and policy

were also considered as important problems each mentioned more than 10 times. Only 2 respondents considered 'no problems' within the RBM in Slovakia.

### **2.1.10. Final workshop and press conference**

In order to summarize the results of the project and present them to top managers responsible for EU WFD implementation in Slovakia, especially the SWE, SHMI, Ministry of Environment as well as other institutions, it was agreed to organise a final workshop in January 2007. The workshop took place on 24<sup>th</sup> January 2007 in Bratislava at the headquarters of SHMI. Despite there were 25 representatives invited to the workshop only 8 representatives of national institutions responsible for EU WFD implementation participated on the final workshop. The programme included in short version the information given on each workshop – the definition of wetlands, their values and functions, aims and procedure of EU WFD and example of project using wetlands in solving water management issues in the RBM. The results of the surveys undertaken during the project were also presented and identified obstacles for RBM were discussed. It was agreed to provide the information gathered during the project to the MoE and other institutions. It has been concluded that wetlands have number of significant functions and thus they can not be regarded as the only solution for water related issues, they have potential to become part of the measures within river basin management and thus help solving water management issues in the river basins.

After the closing of the final workshop the press conference was organised at the SHMI. Representatives of Slovak Television were present and made short interviews with representatives of DAPHNE, SWE and SHMI about the project and the topic of wetlands and water management. The interviews were broadcasted on the following day as part of regional news on Slovak Television channel STV2. Except these other 2 journalists were present on the press conference – from the regional journal Zahorie and from the SITA press agency. On the following week another interview to Slovak Radio was provided.

## **3. CONCLUSIONS**

Considering comparison of results from introductory and the final surveys the campaign seems to be successful in its main objective – raising awareness of water managers and decision-makers in wetland values and functions and strengthening the consideration of wetlands in the river basin management. Just for example, there was significant increase of perceived number of important wetland functions among the target group by the end of the campaign.

Project succeeded also to identify obstacles avoiding better inclusion of wetland management into the river basin management. Insufficient funding, contradicting law, lack of (trained) personnel, lack of communication and cooperation between stakeholders, lack of information and improper management and policy were the most discussed problems on workshops and also mentioned in the survey. Alarming fact is that only 2 respondents from 100 within the final survey considered 'no problems' within the RBM in Slovakia. The identified obstacles were presented and discussed with representatives of MoE and generally agreed, though no concrete steps how to improve the situation were not decided yet.

The project also put significant effort in providing positive examples of wetland related projects which are helping to solve water related issues such as soils erosion, floods etc. However the benefits of wetlands restoration for the RBM seems to remain not explicit linked for the water managers, maybe due to ecological terms used and/or lack of technical data which would prove the benefits. This thus remains as challenge for the future.

With the total number of 289 participants the workshops has proven to be interesting for the target group. Both the SWE water managers (122 participants in total) and also the County and District Office officers attended the workshops in significant number (82 participants in total). The workshops were mostly positively accepted by the workshop participants. Several workshop participants expressed their positive evaluation of workshops during the final survey. In two cases workshops participants organized further meeting for their colleagues to spread the information and knowledge they got on the workshop.

It should be stated that the positive result of the campaign was achieved only because of the co-operation and support from the SWE, SHMI and State Nature Conservancy. These organizations knowing the situation in EU WFD implementation in Slovakia and the challenges ahead have supported the campaign from the very beginning, even despite the reluctance of the Ministry of Environment.

The project has not achieved a massive media attention, but this was not a major tool of this campaign as the target group was rather specific – the water manager and decision-makers and not the general public. The workshops as the main campaign's tool used, the rather 'expert language' and specific topic were not very attractive to media. However in its final stage the project got a fair media attention.

## ANNEXES

ANNEX 1	Introductory questionnaire
ANNEX 2	Introductory survey report
ANNEX 3	Wetlands in the River Basin Management – brochure in .pdf
ANNEX 4	Final questionnaire
ANNEX 5	Final survey report
ANNEX 6	Financial Report

# DOTAZNÍK

## Úloha mokradí v integrovanom manažmente riečnych povodí

1. Vek

2. Organizácia

3. Pozícia

4. Čo rozumiete pod pojmom mokrad'

zamokrená, nevyužiteľná plocha, ktorá si pred akýmkoľvek využitím vyžaduje dôkladnú melioráciu

územie s trvalou alebo dočasnou, stojatou alebo tečúcou vodou, ako napr. močiar, slatina, rašelinisko, vodný tok, jazero a pod.

iné

5. Sú podľa Vás mokrade hospodársky (alebo inak) významné?

áno

nie

6. Ak áno, uveďte prosím aspoň 3 dôležité funkcie mokradí

▪

▪

▪

7. Majú podľa Vás mokrade aj nejaké negatívne vplyvy?

nie

áno, napríklad

neviem

8. Viete uviesť konkrétny príklad, kedy sa zväčšením plochy mokradí dosiahlo zlepšenie vodohospodárskych problémov v povodí (napr. vysychanie vodného toku a nedostatok vody, záplavy, erózia pôdy, znečistenie vodného toku a pod.)?

nie

áno, napríklad

9. Čo podľa Vás znamená integrovaný manažment povodia?

zahrnutie nákladov na starostlivosť o vodné toky a protipovodňové opatrenia v primeranej výške do plánovania štátneho rozpočtu

zahrnutie potrieb a požiadaviek vodného hospodárstva v územnoplánovacej dokumentácii

zohľadnenie a vyváženie požiadaviek iných sektorov (ako je energetika, doprava, poľnohospodárstvo, rybné hospodárstvo, cestovný ruch atď.) v plánovaní a výkone vodného hospodárstva v povodí za účelom dlhodobej ochrany dostupných vodných zdrojov

neviem

10. Na Slovensku sa integrovaný manažment povodí

už uplatňuje v rámci vodohospodárskych plánov a hydroekologických plánov a súčasný stav je viac-menej vyhovujúci

začne sa s jeho plánovaním a uplatňovaním od roku 2007 v súvislosti s novou národnou a európskou legislatívou

nemusí zavádzať

neviem

11. Mala by ochrana mokradí byť súčasťou integrovaného manažmentu povodí na Slovensku?

áno

nie

neviem

## EVALUATION OF THE QUESTIONNAIRE: ROLE OF WETLANDS IN THE INTEGRATED RIVER BASIN MANAGEMENT

The total number of respondents: **105**

Number of refused answers: **5** (reasons: there were not competent; they don't want to answer or they were not sure, if they can give us such a kind of information)

The total number of filled questionnaires: **100**

### Abbreviations used in charts:

SWMA – Slovak Water Management Agency

CO – state administration – county office

DO – state administration – district office

MU – self-government, municipality

### 1. Age

More than half of respondents (56%) belong to the category 31-50 year, 30% belong to the category 51 and more years and only the 4% of respondents were younger than 30 years (chart 1).

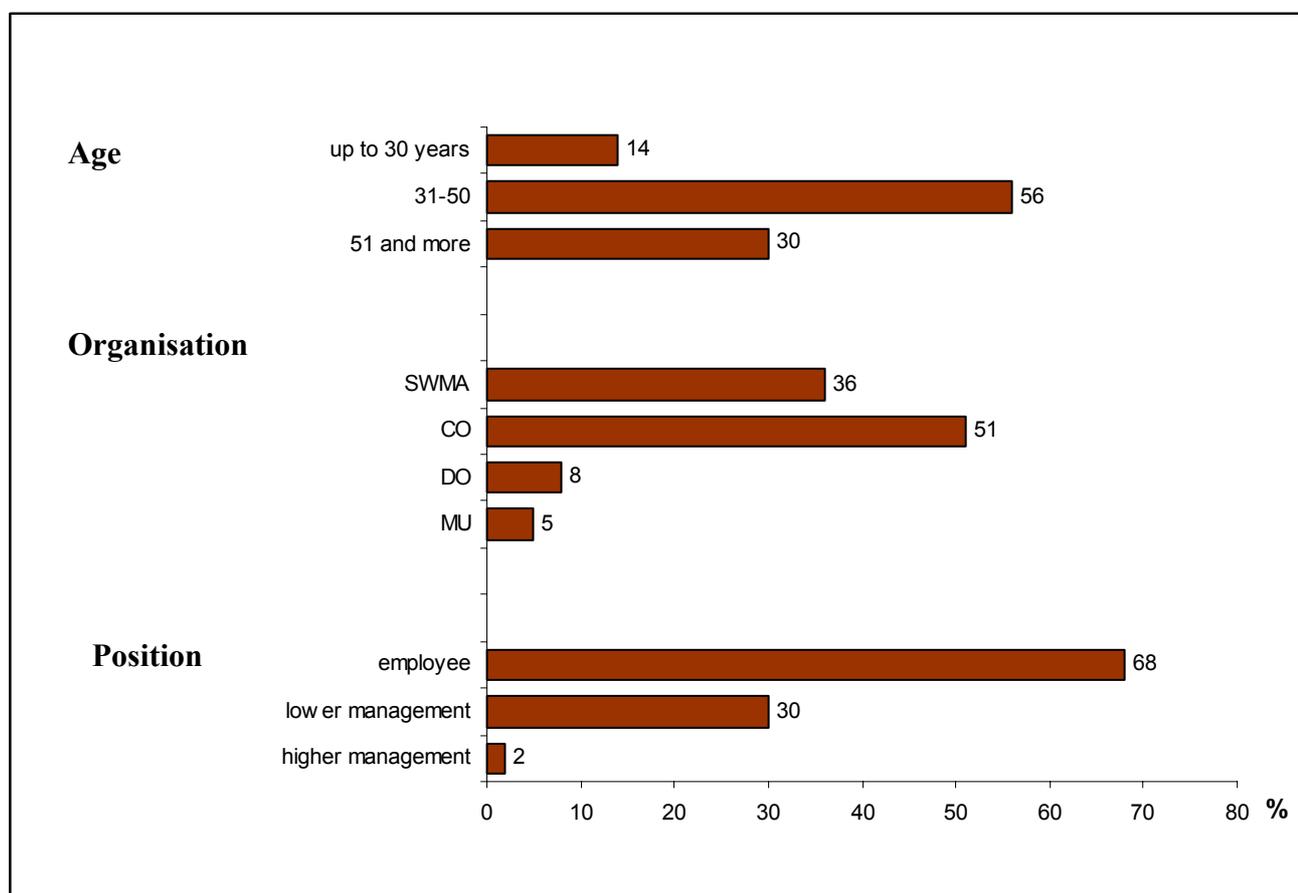
### 2. Organisation

From the total number of respondents 51 % were employees of state administration - county offices, department for water management (highest % relates to highest number of county offices), 8% were employees from the state administration – district offices, 36% were from Slovak Water Management Agency, and the rest 5% were from self-government, municipality (chart 1).

### 3. Position

68% of all respondents were employees, 30 % were from lower management (head of department) and only 2% were higher management (director) (chart 1).

**Chart 1:** Respondents according to age, organisation and position.



#### 4. What you mean by wetland?

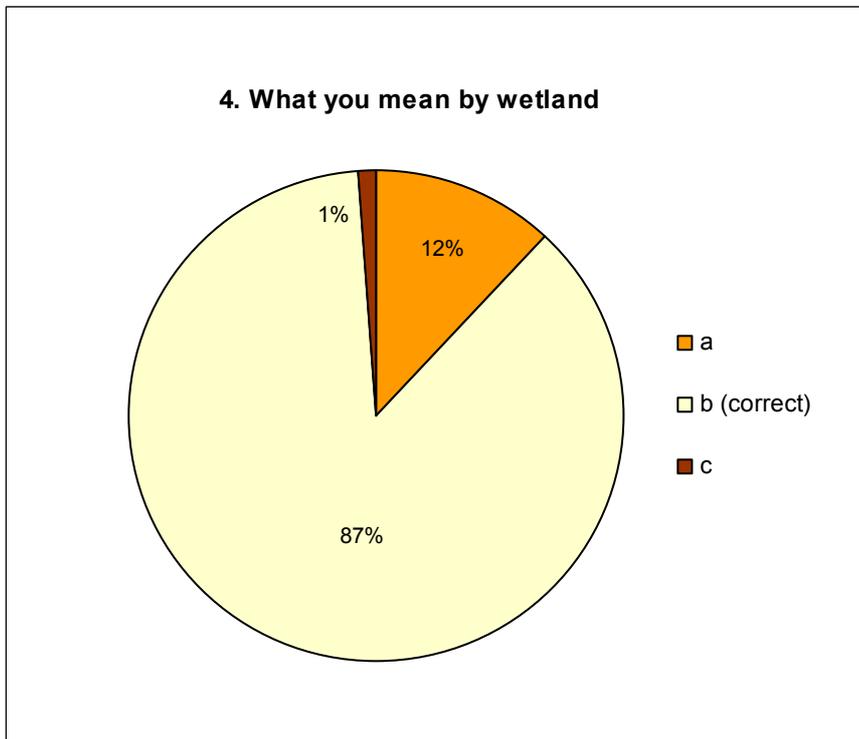
a) *wet, unusable area, which has to be carefully ameliorated before any use*

b) *area with permanent or temporary, standing or flowing water, as for example a marsh, fen, peatland, stream, lake, etc.*

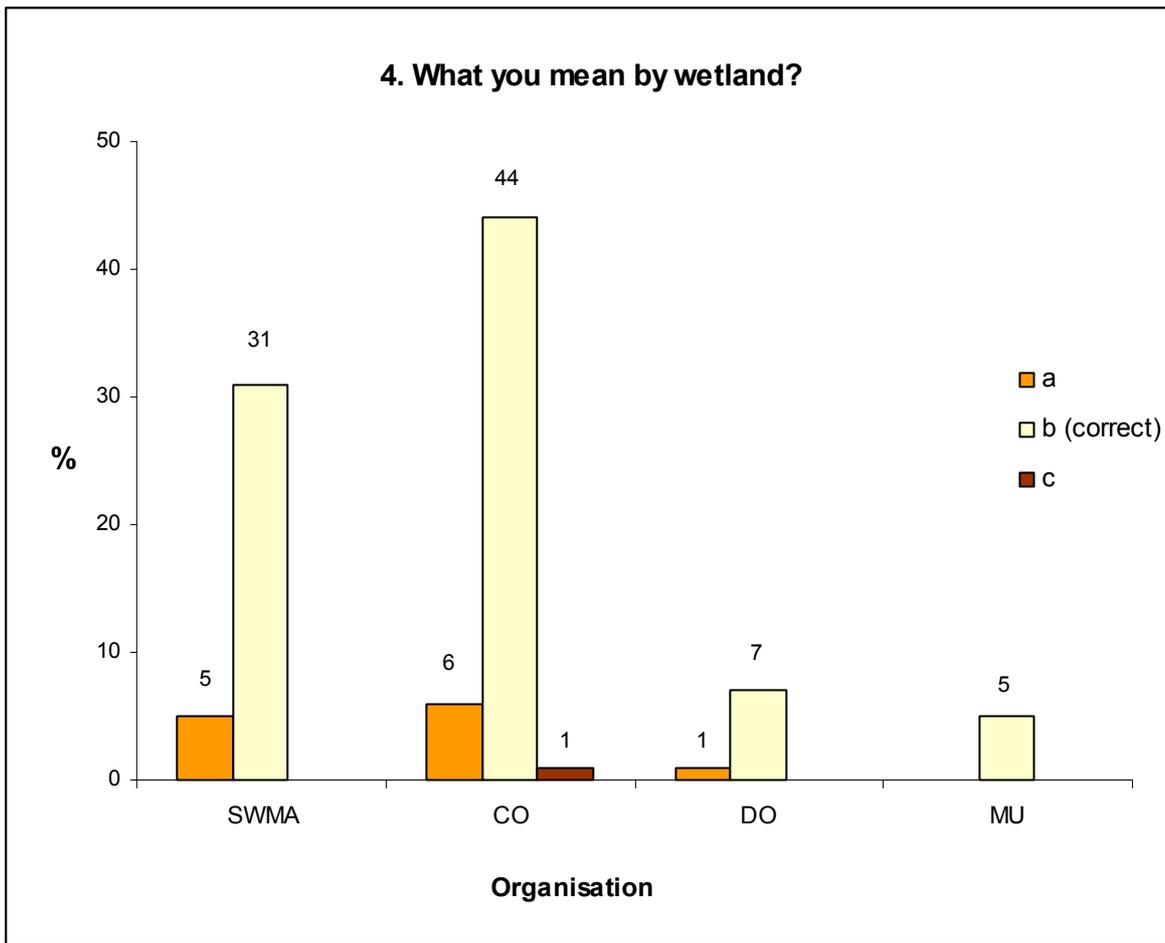
c) *other*

Chart 2 represents how respondents perceived wetlands. Most of them have chosen a natural definition from answer b). Only 12 % preferred technical answer a). Only 1% of respondents have another idea what wetland means. Chart 3 represents answers according to organisation.

**Chart 2**



**Chart 3**



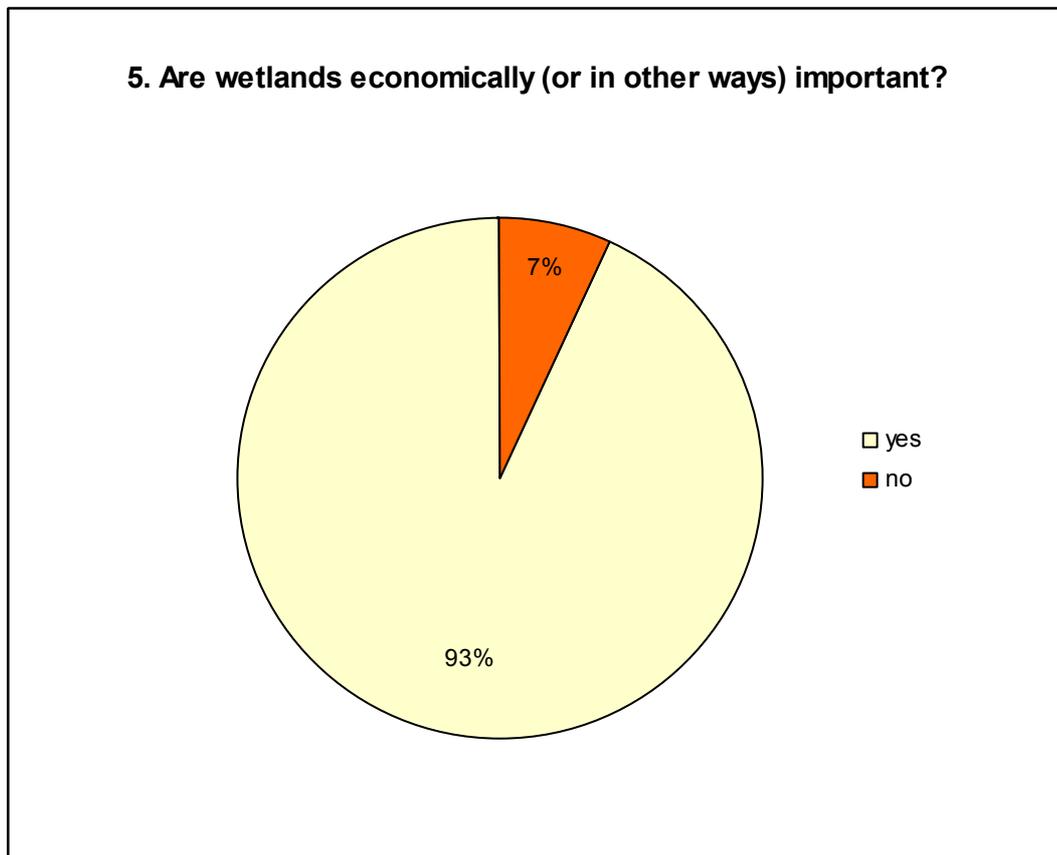
**5. Are wetlands economically (or in other ways) important?**

a) *yes*

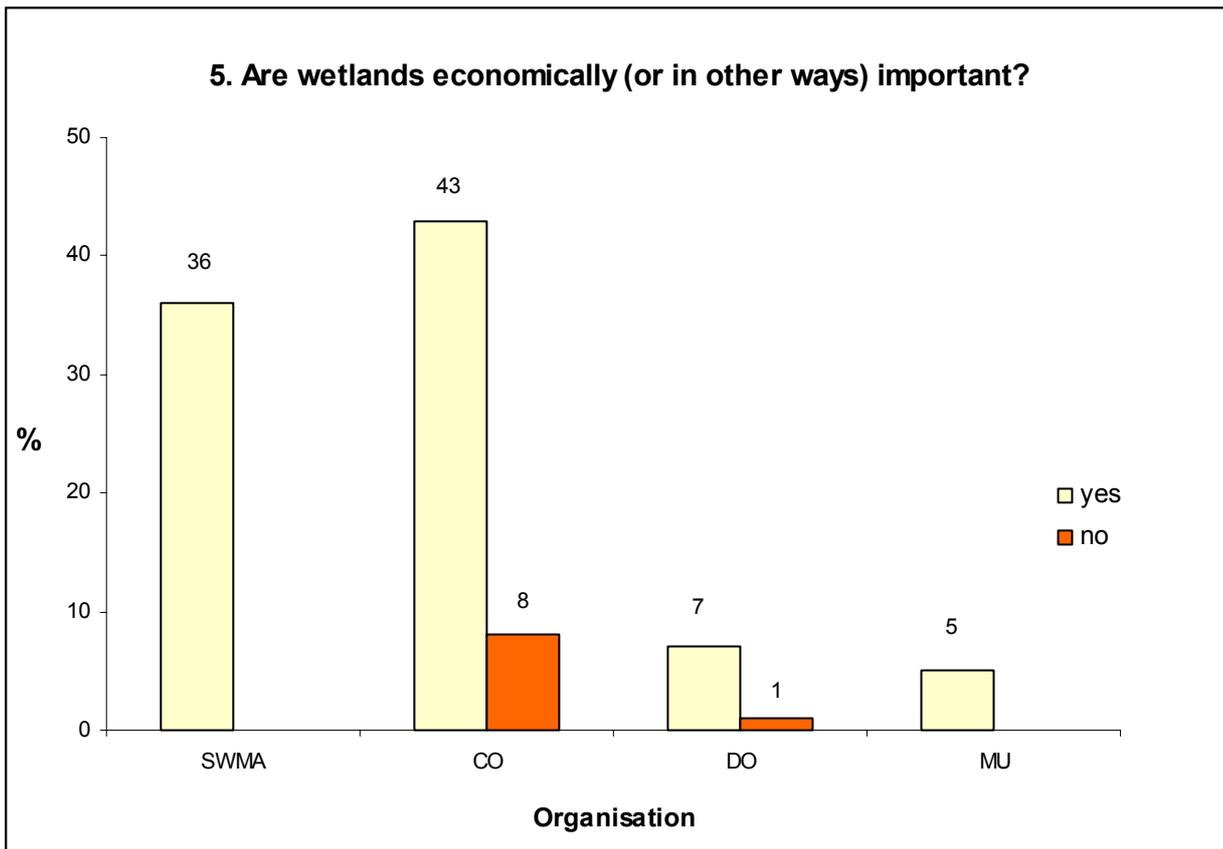
b) *no*

More than 90% of respondents give a positive answer to this question (Chart 4), what declared, that most of people perceived wetlands as important. Chart 5 present answers of respondents according to organisation.

**Chart 4**



**Chart 5**

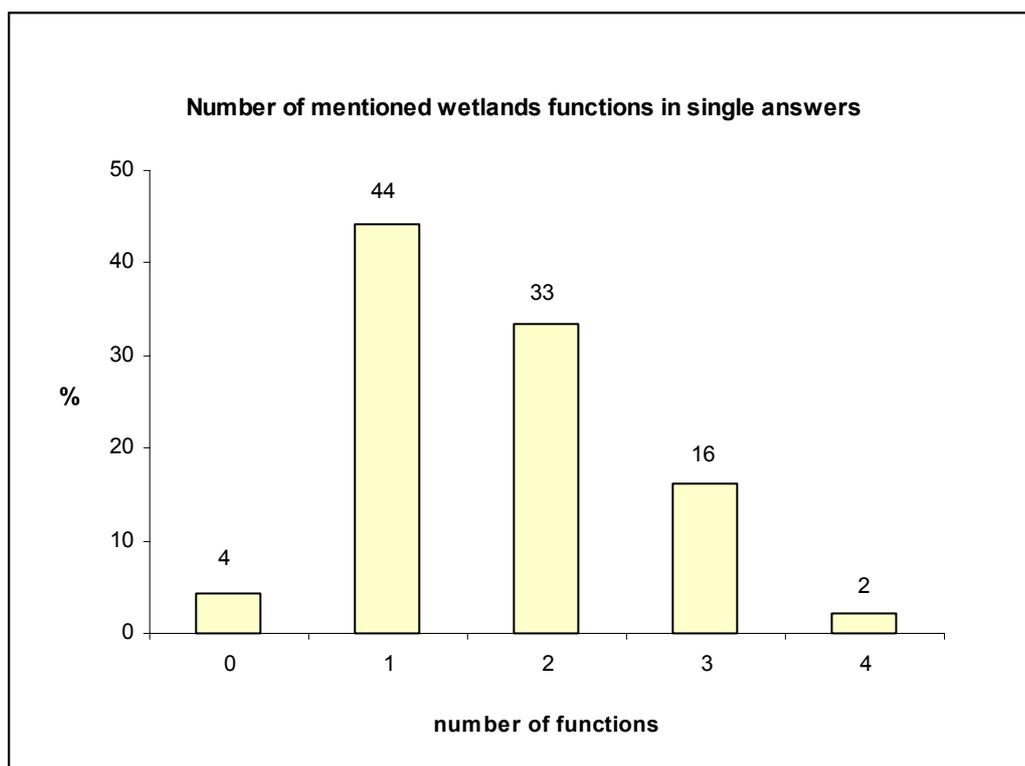


**6. If yes, please specify at least 3 important wetland functions**

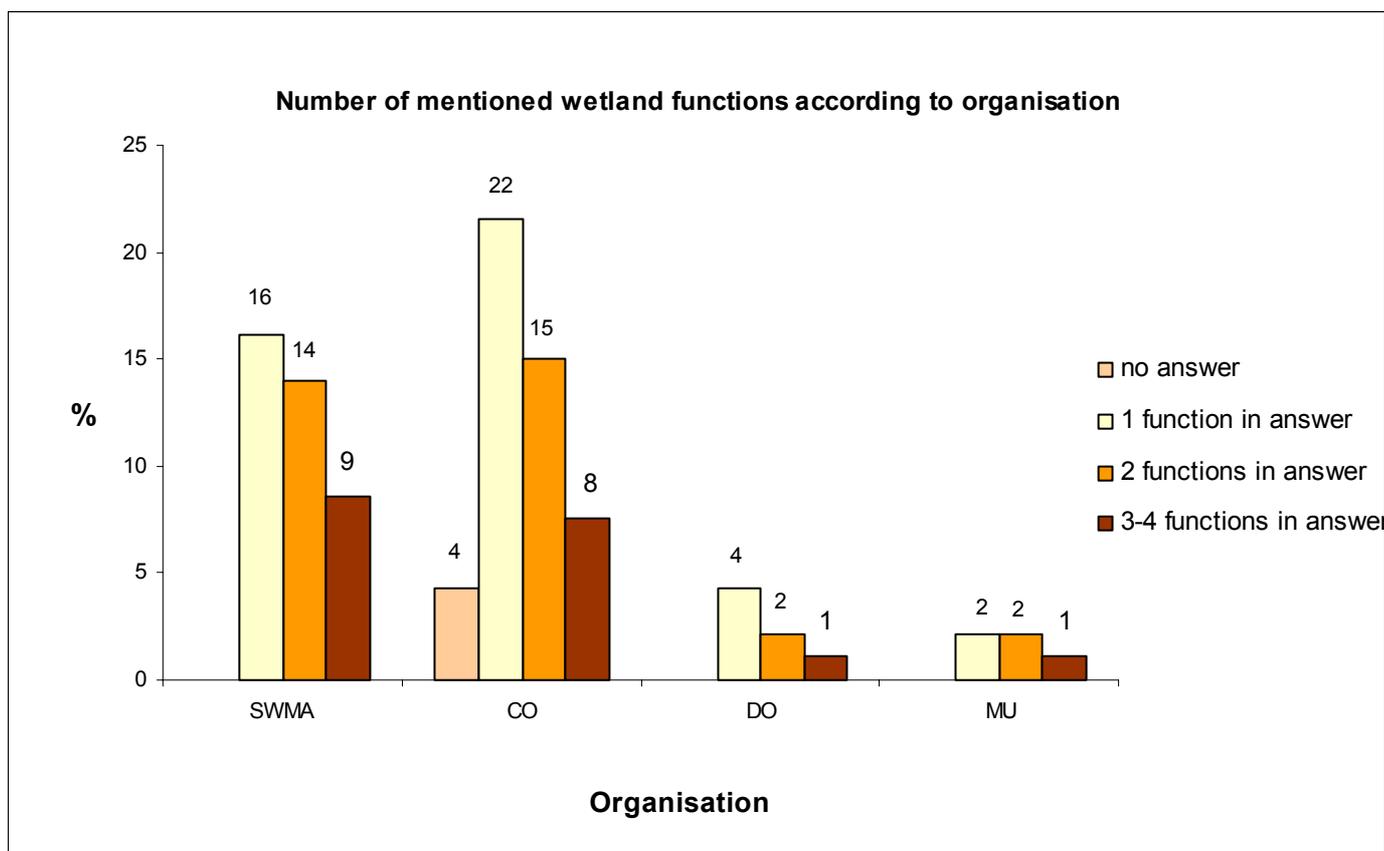
As is shown in the chart 6, the most of respondents, whose answer was positive in former question, were able to specify only 1 function of wetland. 33% specified 2 answers and only 18% specified more than 2 answers. 4% of them were not able to specify any function, although they give a positive answer in question number 5. These result shows, that there is a lack of knowledge among respondents in area of wetland importance and function. But there must be also considered the type of methodology - telephonic interview, when respondents do not have enough time for answers. Chart 7 shows how the respondents from each type of organisation answered.

Most of respondents know that wetlands have some importance (result from question number 5). But only few of them appreciate economical importance of wetlands. Usually they understand importance of wetland from natural and nature protection point of view. In a table 1 and also in the chart 8 are listed all of functions, which were mentioned by respondents and their percentage occurrence in a single answers.

**Chart 6**



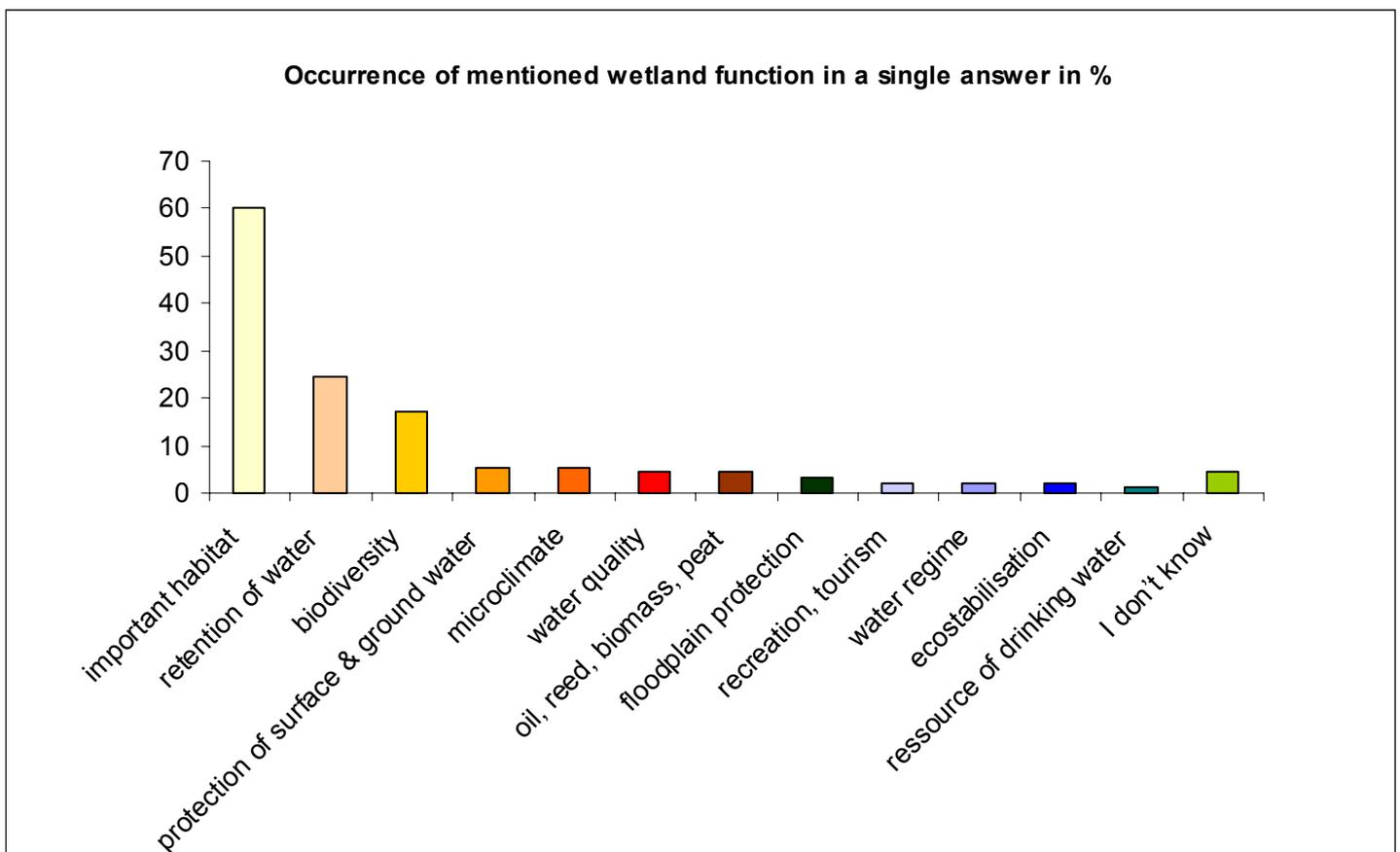
**Chart 7**



**Table 1:** Occurrence of mentioned wetland function in a single answer in %

function	%
important habitat	60
retention of water	25
biodiversity	17
protection of water & ground water	5
microclimate	5
water quality	4
oil, reed, biomass, peat	4
floodplain protection	3
recreation, tourism	2
water regime	2
ecostabilisation	2
resource of drinking water	1
I don't know	4

**Chart 8**

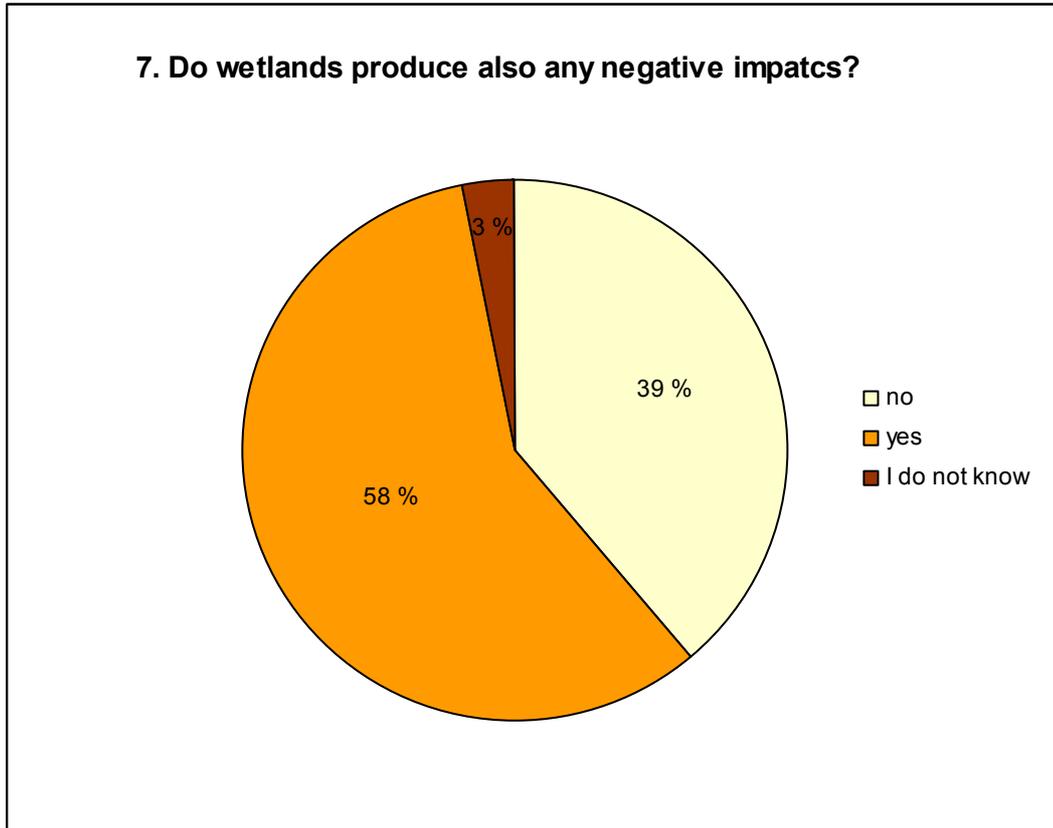


**7. Do wetlands produce also any negative impacts?**

- a) no
- b) yes, for example
- c) I dont know

39% of respondents responded, that wetlands do not have any negative impacts. More then half of them (58%) think, that wetlands have some negative impact. 3% of respondents were not able to express their opinion (chart 9). Answers according to type of organisation are presented in the chart 10.

**Chart 9**



**Chart 10**

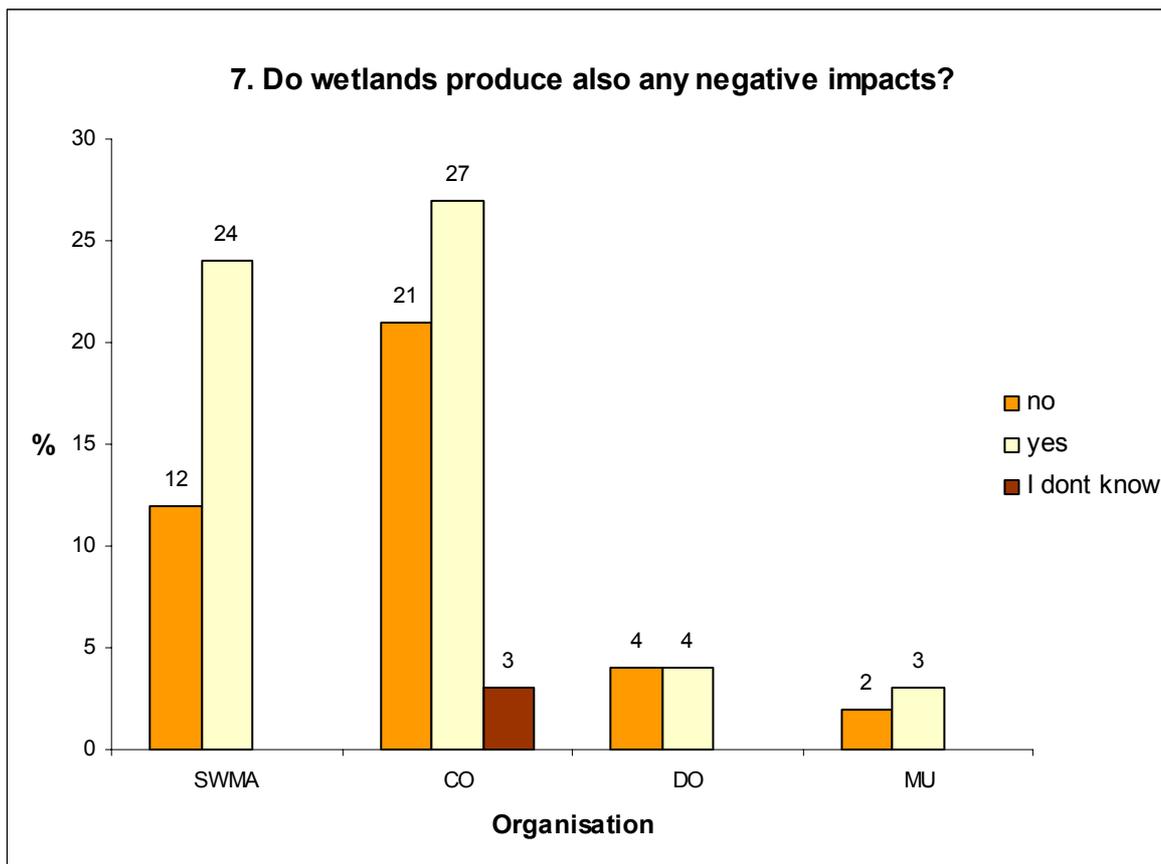
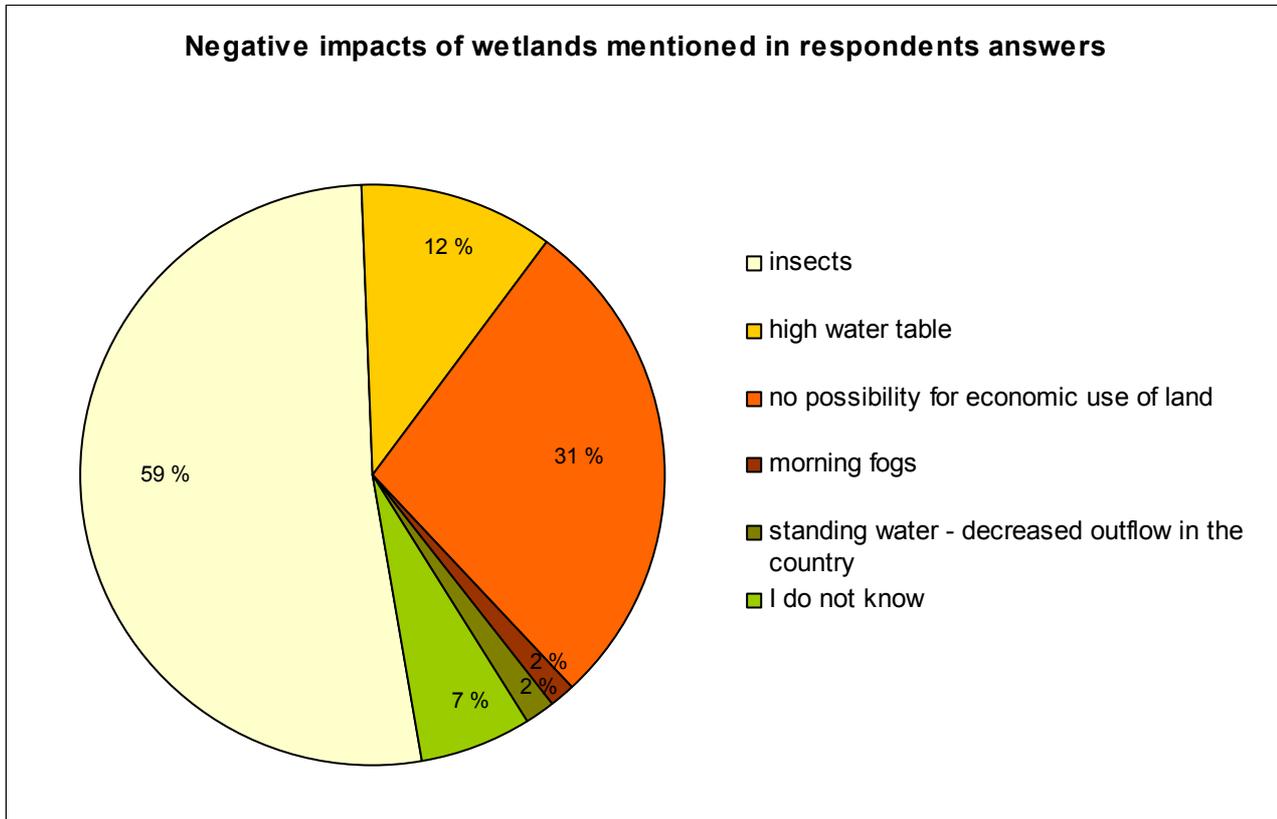


Chart 11 presents all opinions mentioned by people, who answered that wetlands produce also any negative impacts. The most frequent examples mentioned by them were insects. Second was a fact, that this soil cannot be economically used – you cannot build there or use it for agriculture. People usually mentioned only 1 negative impact, some of them mentioned 2-3 various impacts. But most of people who mentioned some negative impacts declared that from natural point of view, wetland cannot be negative, and their negative impacts arise only when man decides to live in their surroundings.

**Chart 11**



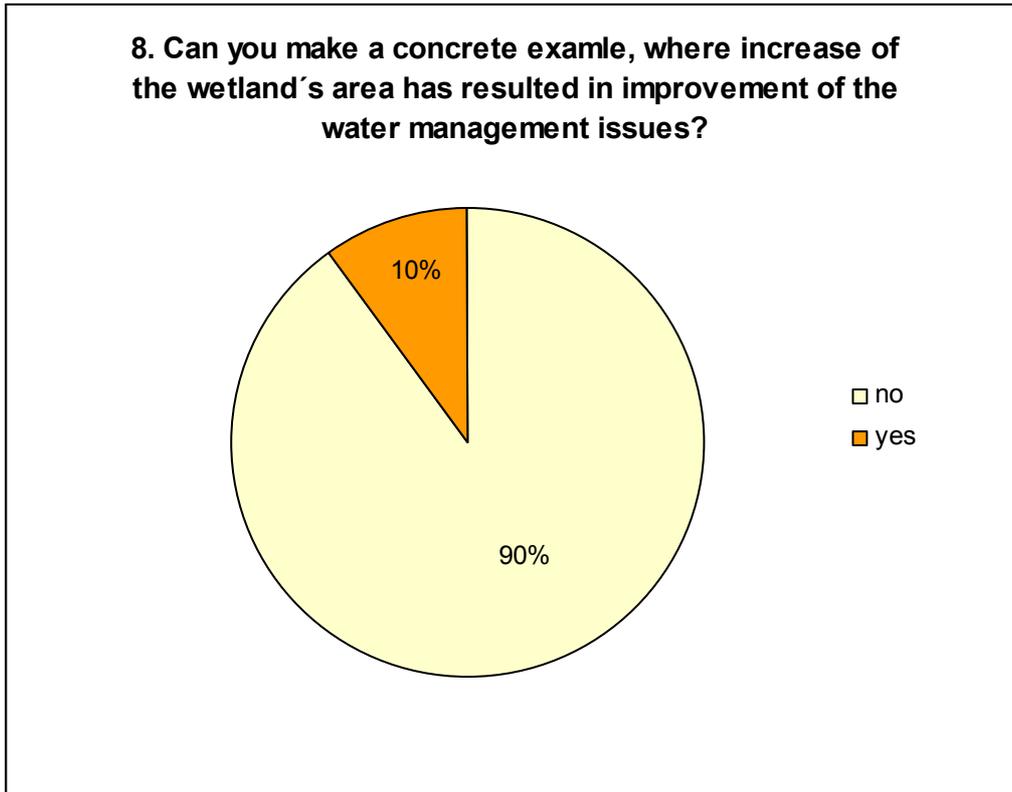
**8. Can you make a concrete example, where increase of the wetlands area has resulted in solving/improvement of the water management issues in the river basin (such as draining of the river, draughts, floods, soil erosion, river pollution etc.)?**

*a) no*

*b) yes, for example*

From answers to question 8 it results, that most of respondents do not have any experience with improving water management issues in the river basin due to increasing of the wetlands area. Only 10% of them have such experience – some from own practice, some from literature.

**Chart 12**



**Chart 13**



**9. What do you mean by integrated river basin management?**

- a) inclusion of sufficient amount of funds for the costs of the water courses management and flood protection in the state budgeted planning*
- b) inclusion of needs and demands of the water management in the spatial planning documentation*
- c) reflecting and balancing the demands of different sectors (such as energy, transportation, agriculture, fisheries, tourism etc.) in planning and implementation of the water management in the river basin with the aim of long-term protection of available water resources*
- d) I do not know*

2/3 of respondents were able to choose correct answer on this question. Evaluation of answers is presented on chart 14 and 15.

**Chart 14**

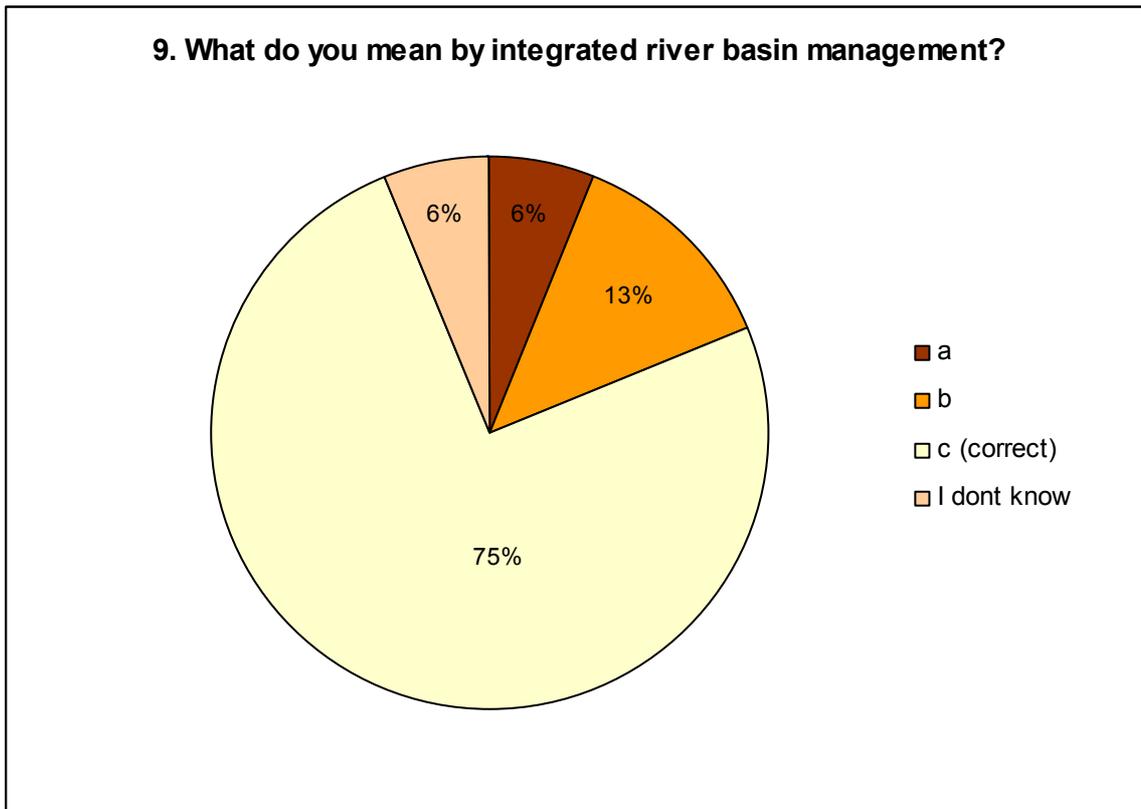
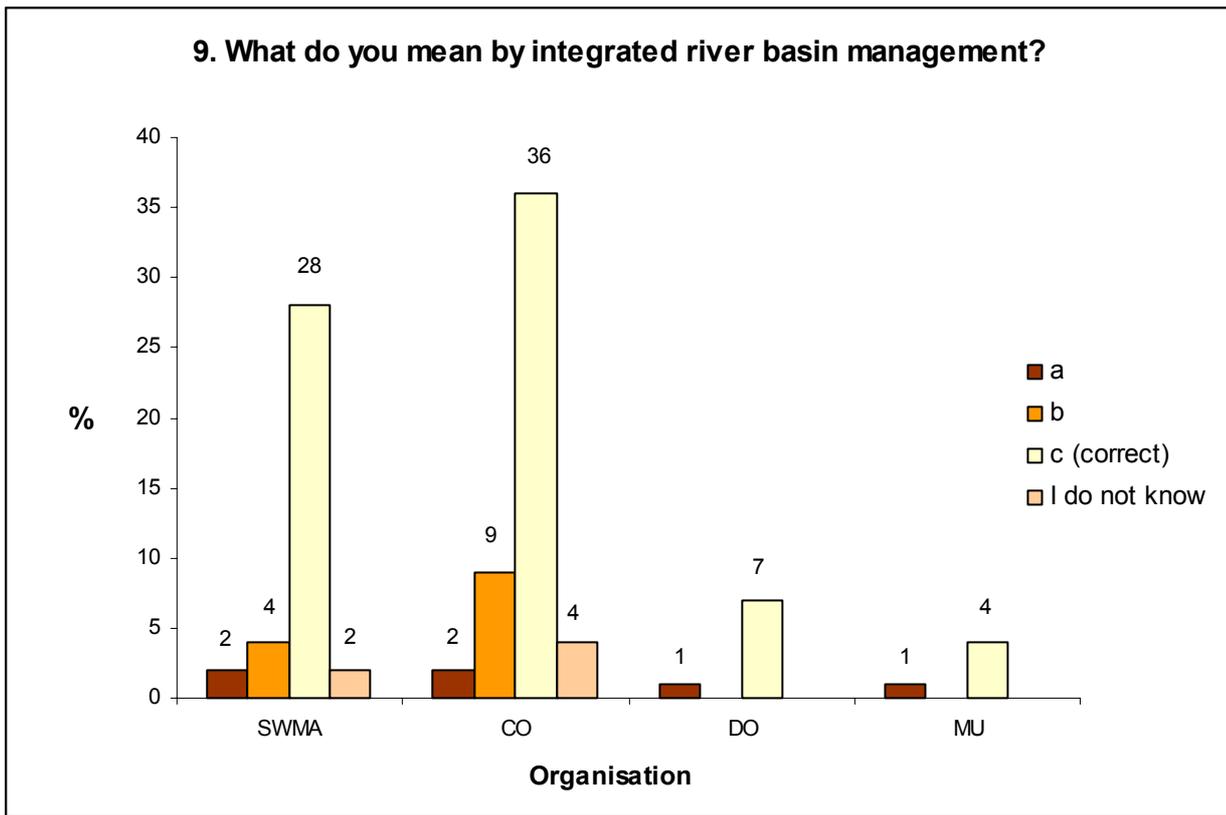


Chart 15



### 10. Integrated river basin management in Slovakia

a) is already being implemented on the framework of existing water management plans and hydro-ecological plans and present status is more/less suitable

b) will be planned and implemented from 2007 in relation to new national and European legislation

c) does not need to be introduced at all

d) I do not know

Although 2/3 of respondents answered in question number 9 correctly, by this question it was only 44%. Answer number c) is not in chart, because nobody has chosen it. Total of 35% of respondents decided to choose the answer a), because according to their opinion, some principles of the integrated water management are already mentioned in Water Act.

Chart 16

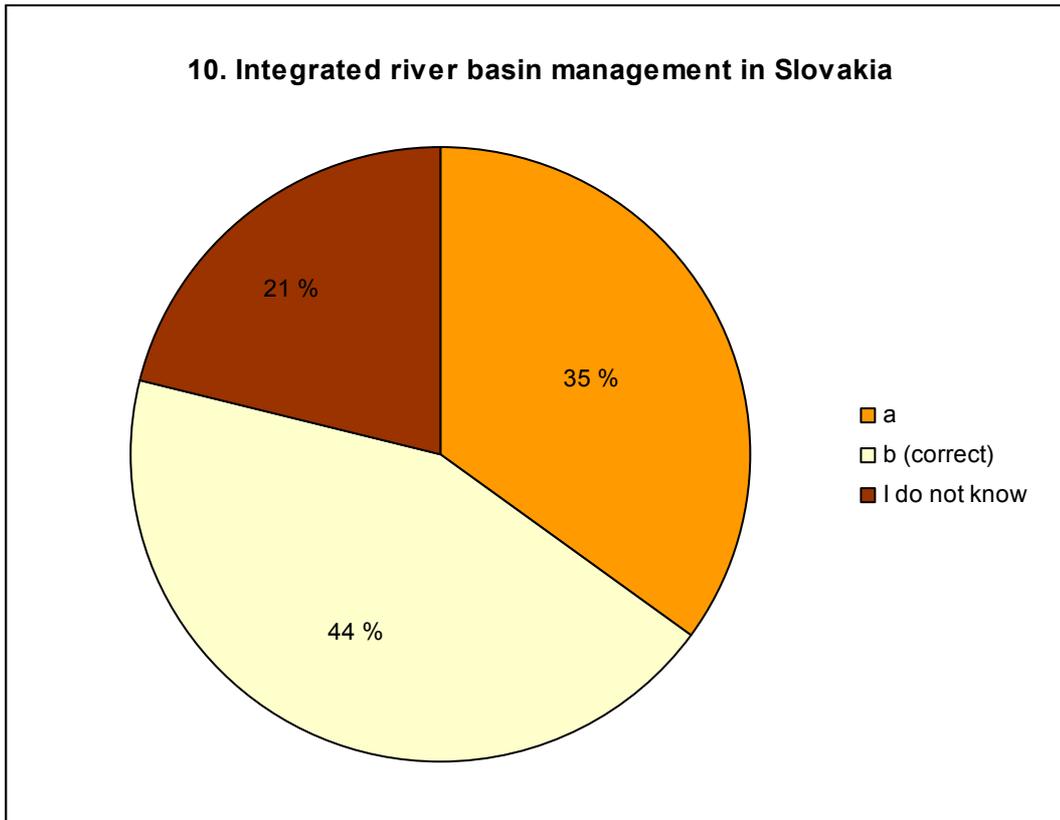
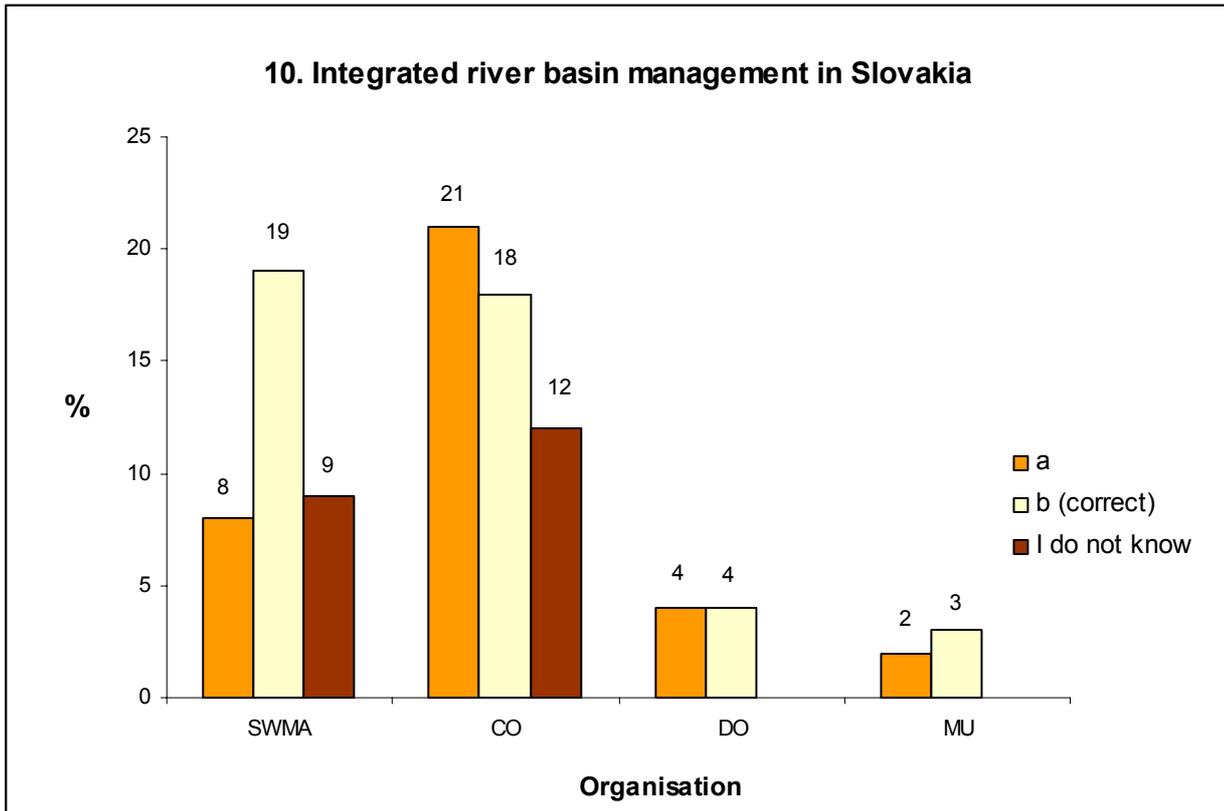


Chart 17



**11. Do you think wetland conservation should be included in the integrated river basin management in Slovakia?**

- a) no
- b) yes
- c) I do not know

More than 2/3 of respondents (79%) answered positively on this question. Only 11% disagreed, because they think, that wetland conservation should be in the competence of the State Nature Conservancy. Altogether 10% of respondents was not able to express their own opinion on this question.

**Chart 18**

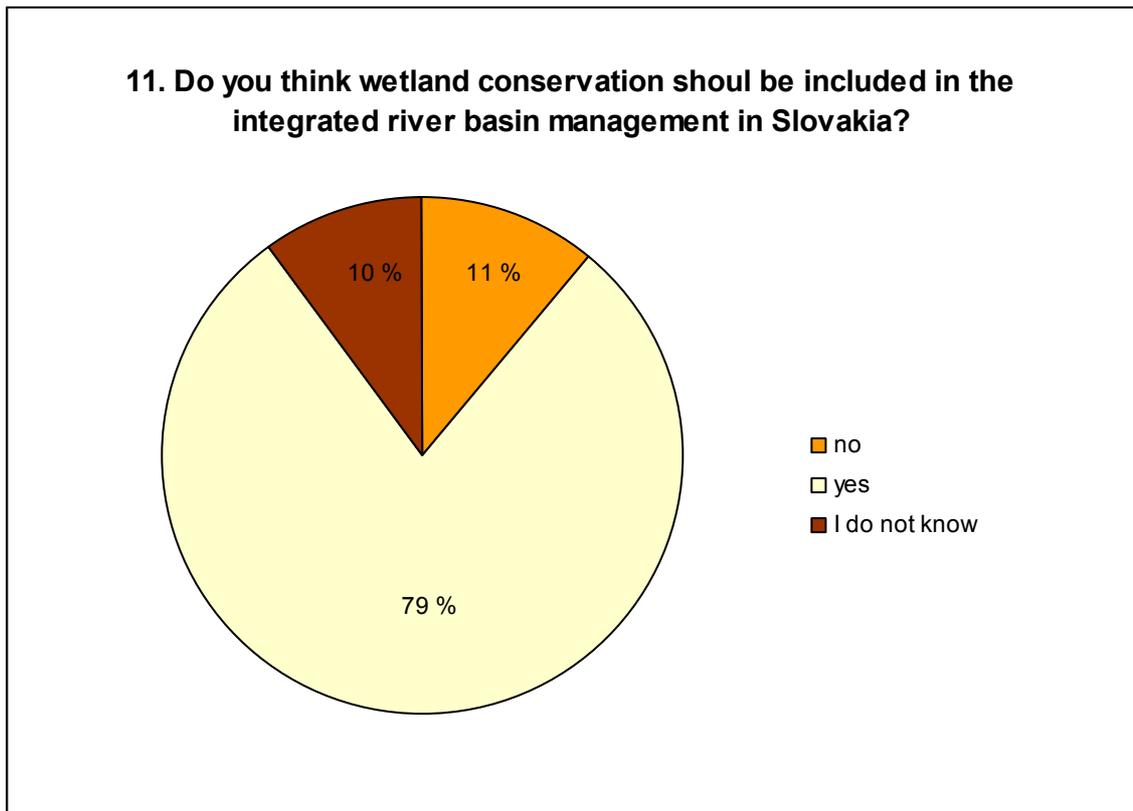
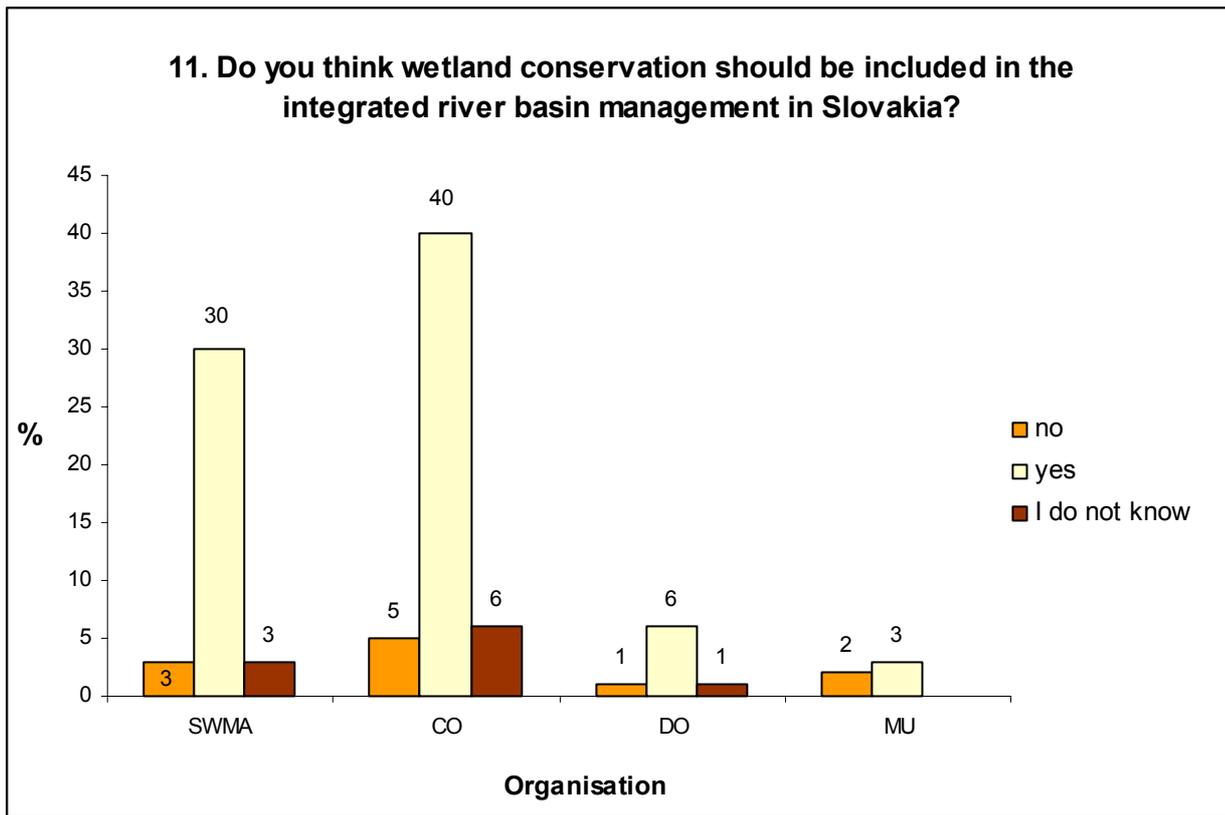


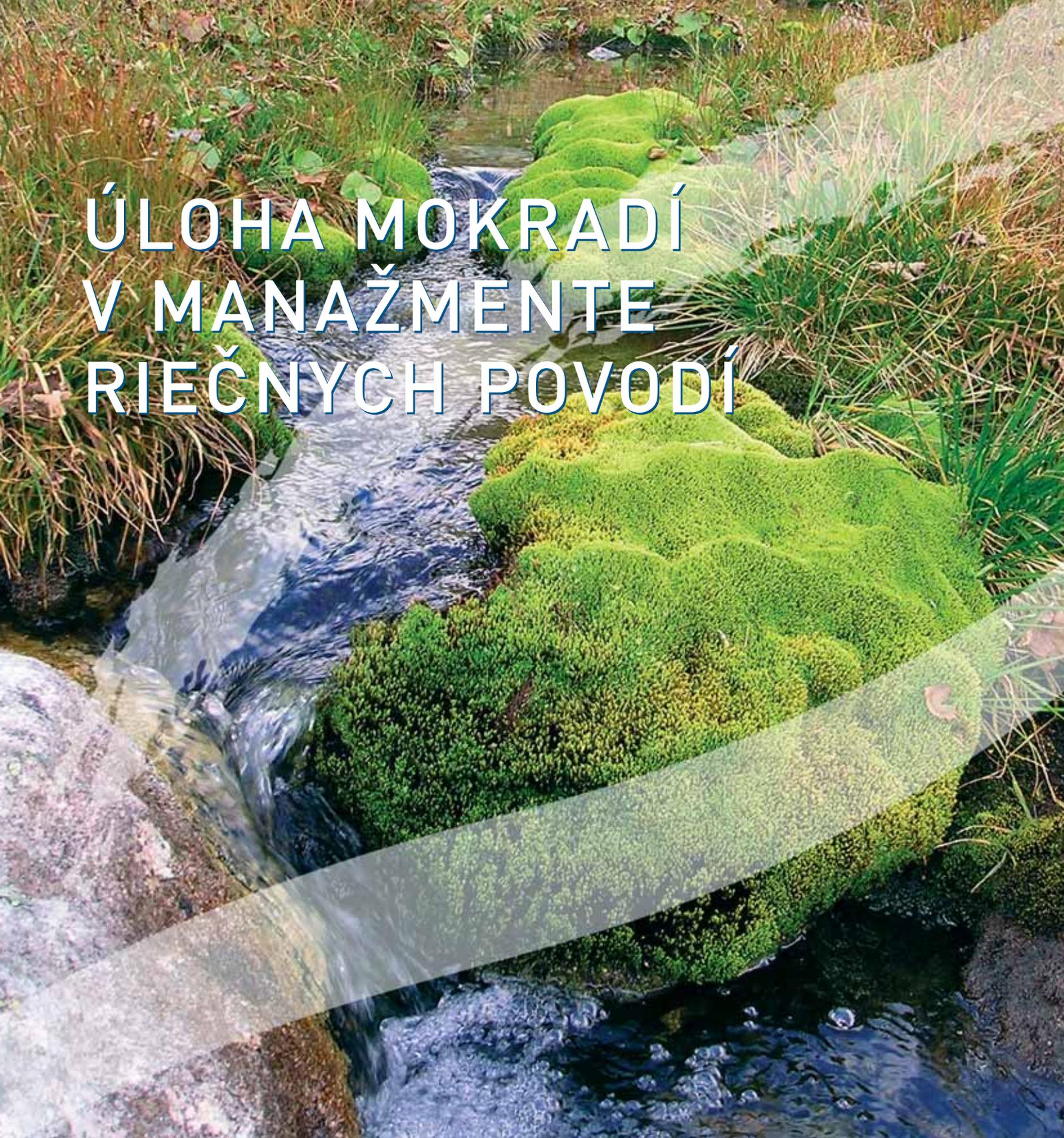
Chart 19



#### Čo je to mokraď?

Mokrade sú územia, v ktorých je voda dominantným faktorom určujúcim životné prostredie a súvisiace rastlinstvo a živočíšstvo. Predstavujú rozmanité a hydrologicky zložité ekosystémy, ktoré sa obvykle vyvíjajú na prechode zo suchozemského do typicky vodného prostredia.

Existuje množstvo definícií, interpretácií a vnímaní pojmu mokraď. Podľa Ramsarského dohovoru o mokradiach sú mokrade: „*územia s močiarimi, slatinami, rašeliniskami, s vodami prírodnými alebo umelými, trvalými alebo dočasnými, stojatými aj tečúcimi, sladkými, brakickými alebo slanými vrátane územia s morskou vodou, ktorej hĺbka pri odlive nepresahuje šesť metrov.*“



# ÚLOHA MOKRADÍ V MANAŽMENTE RIEČNYCH POVODÍ

Podľa komplexnejšej, funkčnej definície sú mokrade:

- > heterogénne, ale osobitné ekosystémy, ktorých výnimočné ekologické, biogeochemické a hydrologické funkcie vyplývajú z domnancy a špecifických zdrojov vody, jej chemického zloženia a periodicity zaplavovania alebo nasycovania vodou,
- > vyskytujú sa v rôznych typoch krajiny a môžu predstavovať aj trvalé plytké (< 2m hlboké) alebo dočasné stojaté vody,
- > ich pôdy, substrát a biota sa prispôbili záplavám alebo podmáčaní vysokou hladinou podzemnej vody a súvisiacemu obmedzenému prístupu vzduchu.

Hovorí sa však, že **raz vidieť je lepšie ako stokrát počuť**, a preto, ak Vás priláka pohľad na mokrade, dajte pozor, kam stúpate, lebo si tu rýchlo môžete zamočiť nohy.

## PREČO SÚ MOKRADE DÔLEŽITÉ PRE MANAŽMENT VODNÝCH ZDROJOV?

Mokrade sa vyznačujú množstvom dôležitých funkcií a hodnôt, ktoré súvisia s hydrológiou, kvalitou vody, potravným reťazcom a funkciou biotopu rastlín a živočíchov.

Hydrologické funkcie mokradí, ktoré sú významné pre manažment vodných zdrojov, zahŕňajú najmä:

- > **Zmierňovanie záplavových vĺn:** Veľká časť mokradí je spojená s riečnymi nivami. Keď sa v čase privalových dažďov alebo počas jarného topenia snehu voda vyleje z riečného koryta, mokrade zadržia časť prebytočnej vody.
- > **Udržiavanie sanitárneho prietoku:** znamená udržiavanie prietoku v povrchovom toku na úrovni, ktorá je dostatočná na prežitie pôvodných druhov rýb a iných živočíchov závislých od vodného prostredia. Sanitárny prietok je pri každom toku iný a závisí tak od prírodných faktorov, ako sú zrážky, geologické podmienky, vegetácia, ako aj od antropogénnych faktorov, akým je napr. využitie krajiny. Niektoré mokrade sú schopné akumulovať vodu a v čase sucha ju postupne uvoľňovať do povrchového toku.
- > **Zabraňovanie brehovej erózie:** Mokradová vegetácia na brehoch riek stabilizuje brehovú čiaru tým, že zmiernuje nápor vĺn, prúdov a ďalších erózných síl.
- > **Čistenie vody:** V mokradiach sa prirodzenými procesmi odstraňujú z vody sedimenty a organická hmota. Najmä korene rastlín zachytávajú sedimenty a zabraňujú tak odnášaniam cennej pôdy. Niektoré umelé mokrade sa môžu využívať na čistenie odpadovej vody, z ktorej odstraňujú živiny a znečisťujúce látky.
- > **Zachytávanie a prenos znečisťujúcich látok:** mokrade sú schopné zachytávať živiny, najmä dusík a fosfor, ktoré zhromažďujú v telách rastlín a v pôde. Odstraňovanie živín z vody v mokradiach zabráňuje eutrofizácii, zlepšuje kvalitu vody a vytvára zdroj živín pre okolie.
- > **Udržiavanie teploty vody:** uvoľňovaním studenej vody do vodných tokov počas obdobia s nízkymi prietokmi mokrade znižujú riziko prehriatia vody v toku, čím chránia ryby a iné vodné organizmy pred nedostatkom kyslíka. Brehové porasty plnia obdobnú funkciu. Zatieňujú malé toky, čím minimalizujú ich priame vystavenie slnečnému žiareniu.
- > **Doplňanie zásob podzemnej vody:** mokrade uľahčujú prúdenie vody medzi systémom podzemnej a povrchovej vody. Doplňanie podzemnej vody sa deje vtedy, keď voda prúdi z mokradí do zásobárni podzemnej vody. Naopak, k odtoku podzemnej vody dochádza vtedy, keď voda prúdi z podzemných zásobární do mokradí.
- > **Biotop rýb a iných druhov organizmov:** mokrade poskytujú vodu, potravu, úkryt a miesto pre rozmnožovanie mnohým druhom rýb a iným druhom organizmov.

## MOKRADE A RÁMCOVÁ SMERNICA O VODE

Európsky parlament a Rada prijali v októbri 2000 Smernicu 2000/60/ES, ktorá ustanovuje rámec pôsobnosti Spoločenstva v oblasti vodohospodárskej politiky (Rámcová smernica o vode – RSV).



rašelinisko



pleso



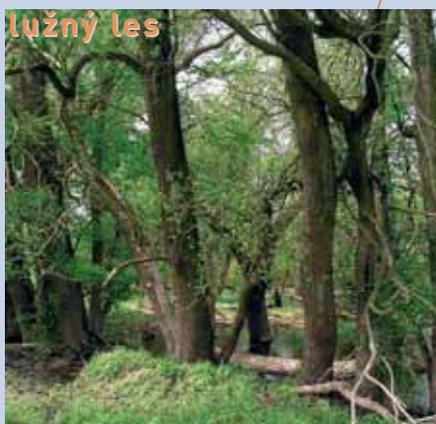
horský potok



riparian forest



mŕtve rameno



lužný les



slanisko



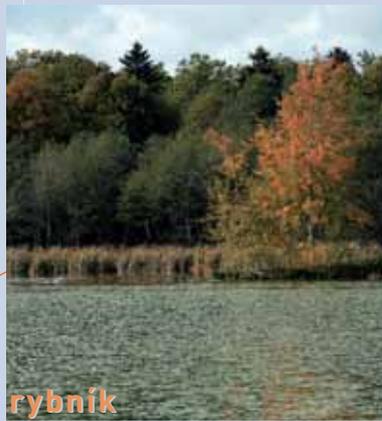
mokrú lúka

## DIVERSITY OF WETLANDS

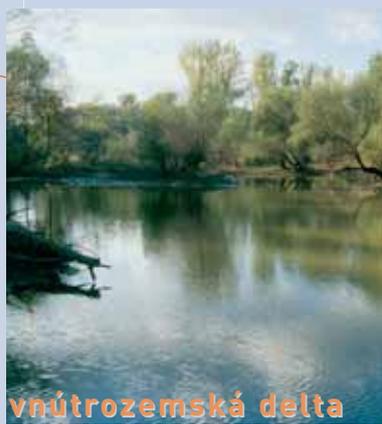




močiar



rybník



vnútrozemská delta



nížinná rieka



riečna niva

Hlavné ciele RSV sú:

- > predchádzať ďalšiemu zhoršovaniu kvality a kvantity všetkých vôd v Európe,
- > dosiahnuť a udržať „dobrý stav“ všetkých vodných útvarov do roku 2015,
- > prispievať k trvalo udržateľnému, vyváženému a čestnému využívaniu vôd.

Článok 1(a) RSV určuje, že ochrana, obnova a zlepšenie stavu mokradí je súčasťou cieľov smernice. Uvádza sa, že smernica:

„ustanoví rámec ochrany vnútrozemských povrchových vôd, brackických vôd, pobrežných vôd a podzemných vôd...“

... zabráni ďalšiemu zhoršovaniu, ochráni a zlepší stav vodných ekosystémov, a s ohľadom na ich potrebu vody suchozemských ekosystémov a mokradí, ktoré sú priamo závislé od vodných ekosystémov.“

Hoci sa RSV o mokradiach zmieňuje (napr. v článku 1(a) a v prílohe VI(vii)), neobsahuje žiadnu špecifickú definíciu mokradí, neukladá štátom povinnosti ani odporúčania vo vzťahu k mokradiam, a neurčuje ani rozsah, v ktorom by mokrade mali byť využívané na dosiahnutie environmentálnych cieľov smernice. Tieto ciele sa vzťahujú na „vodné útvary“ ako „operačné jednotky“ RSV.

Nasledujúca tabuľka sumarizuje typy ekosystémov menované RSV, ktoré môžu mokrade zahŕňať alebo ich možno za mokrade považovať, a pokiaľ sa vyskytujú v oblasti povodia, dosiahnutie cieľov smernice si môže vyžadovať prijatie osobitných opatrení pre tieto ekosystémy.

Typ ekosystému podľa RSV	Zodpovedajúce typy mokradí
suchozemské ekosystémy priamo závislé od podzemnej vody	pramene, slatiny a vrchoviská, slaniská, mokré lúky a pasienky, obnažené dna, lesné a krovité močiare, lužné lesy, jaskyne s podzemnými tokmi alebo stojatou vodou
hydromorfologické prvky v záplavovej, pobrežnej alebo prílívovej zóne útvarov povrchových vôd	porasty vodných rastlín, lužné lesy, vysokobylinná nívna vegetácia, aluviálne lúky, porasty trstí a vysokých ostríc, obnažené dna, dočasné jazierka, vnútrozemské delty, prílívové oblasti
malé prvky povrchovej vody neidentifikované ako vodné útvary, ale spojené s útvarmi povrchovej vody	pramene, slatiny a vrchoviská, dočasné jazierka, mokré lúky a pasienky, lesné a krovité močiare, trstové a ostricové močiare, obnažené dna, porasty vodných rastlín
rieky, jazerá, prechodné vodné a pobrežné vodné útvary	potoky a rieky, plesá, jazerá, mŕtve ramená, rybníky, poldre, riečne delty a pobrežné zóny
ekosystémy výrazne ovplyvňujúce kvalitu alebo množstvo vody zásobujúcej útvary povrchových vôd alebo povrchové vody napojené na útvary povrchových vôd	všetky typy mokradí

Úloha mokradí v riadení povodia a dosiahnutí environmentálnych cieľov RSV bola najlepšie vyjadrená v spoločnom texte prijatom na stretnutí „vodohospodárskych riaditeľov“ v Kodani v novembri 2002:

„Mokradňové ekosystémy sú ekologicky a funkčne významnými prvkami vodného prostredia a majú významný potenciál prispieť k dosiahnutiu trvalo udržateľného manažmentu povodia.“

Zaťaženie mokradí (ako napríklad fyzické úpravy alebo znečistenie) môžu ovplyvniť ekologický stav vodných útvarov. Odstraňovanie týchto záťaží by preto malo byť súčasťou opatrení plánov manažmentu povodia, pokiaľ si to vyžaduje dosiahnutie environmentálnych cieľov smernice.

Vytváranie mokradí a ich obnova môže za priaznivých okolností ponúknuť udržateľné, úsporné a sociálne akceptovateľné riešenia... prispievajúce k zmierneniu vplyvu znečistenia, k zmierneniu vplyvov sucha a záplav, napomáhajúce dosiahnuť trvalo udržateľný manažment pobrežných oblastí a podporujúce dopĺňanie zásob podzemnej vody.“

## ZAPOJENIE MOKRADÍ DO PRAVIDELNÉHO MANAŽMENTU POVODÍ

Ochrana a zlepšenie stavu povrchových a podzemných vôd sa bude zabezpečovať prostredníctvom programu opatrení RSV, ktoré sa vypracujú tak, aby sa dosiahli environmentálne ciele určené smernicou.

Program opatrení bude zahŕňať dve kategórie aktivít:

- > „základné“ opatrenia, ktoré sú členské štáty povinné uplatňovať a
- > „doplňkové“ opatrenia, ktoré môžu členské štáty prijať.



Rekonštrukcia a obnova mokradových území je zaradená v zozname možných doplnkových opatrení.

Starostlivosť o mokrade sa však môže stať aj súčasťou základných (povinných) opatrení, ak je nevyhnutná na dosiahnutie cieľov smernice.

Členské štáty sa tiež môžu rozhodnúť pre použitie opatrení manažmentu mokradí, ak predpokladajú, že ide o ekonomicky najefektívnejší prístup alebo z iných dôvodov najvhodnejšiu kombináciu opatrení. Navyše, opatrenia starostlivosti o mokrade by mali byť povinné, pokiaľ je mokrad:

- > riekou, jazerom, prechodným alebo pobrežným vodným útvarom, alebo
- > časťou povrchového vodného útvaru a jej ochrana, zlepšenie alebo obnova je potrebná na zaistenie hydromorfologických podmienok, ktoré sú nevyhnutné pre biologické prvky určujúce dobrý ekologický stav vodného útvaru.

Spomedzi základných opatrení uvedených smernicou zaraďujeme medzi opatrenia týkajúce sa mokradí, resp. medzi opatrenia, ktorými je možné získať najväčší úžitok z manažmentu mokradí:

- > **opatrenia požadované inou legislatívou Spoločenstva** vrátane vodohospodárskych opatrení potrebných na zabezpečenie ochrany území Natura 2000, ako aj biotopov mimo chránených území, pokiaľ je to nevyhnutné na dosiahnutie ustanovení Smernice o vtácoch a Smernice o biotopoch – napr. vytváranie náhradných mokradových biotopov pre druhy vtákov európskeho významu, zlepšenie vodného režimu alebo kvality vody mokradí;
- > **opatrenia na dosiahnutie návratnosti nákladov za vodohospodárske služby** (distribúcia vody do domácností, verejných inštitúcií alebo pre akékoľvek hospodárske aktivity) – napr. premietnutie nákladov na obnovu mokradí do ceny vodohospodárskych služieb v prípadoch, keď má odber vody významný vplyv na súvisiace mokrade;



- > **opatrenia na ochranu kvality vody**, na zabránenie rozptýleného znečistenia a odstránenie znečistenia povrchovej vody prioritnými látkami – môžu zahŕňať obnovu mokradí, reaktiváciu riečnych nív alebo tvorbu umelých mokradí atď.;
- > **opatrenia na zamedzenie akýchkoľvek ďalších významných nepriaznivých vplyvov** na stav vôd a opatrenia na predchádzanie a zmierňovanie strát spôsobených technickými zariadeniami – môžu zahŕňať odstránenie starých a nevhodne zostrojených priehrad, hatí a hrádzí, výstavbu rybochodov a pod.



Okrem už uvedených opatrení majú mokrade významný potenciál zmierňovať vplyvy povodní a sucha, odstraňovať chemické látky a sedimenty z nív alebo pobrežných vôd, zlepšovať dopĺňanie podzemnej vody. Vytvárajú tiež biotop pre voľne žijúce organizmy a podporujú širokú škálu ľudských aktivít. Správne využitie potenciálu mokradí pre trvalo udržateľný manažment povodí je výzvou súčasnosti.

## POUŽITÉ ZDROJE

- > Smernica 2000/60/ES Európskeho Parlamentu a Rady z 23. októbra 2000, ktorou sa stanovuje rámec pôsobnosti pre opatrenia Spoločenstva v oblasti vodného hospodárstva.
- > Common Implementation Strategy for the Water Framework Directive (2000/60/EC) - Horizontal Guidance Document on the Role of Wetlands in the Water Framework Directive, Final Draft, 23. apríla 2003.
- > Négrel Ph., Petelet-Giraud E., Sgouridis F. (2005): EUROWET, Integration of European Wetland research in sustainable management of the water cycle. Significance of wetlands in the water cycle.



Vydalo: Dunajské environmentálne fórum

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# DOTAZNÍK

## Úloha mokradí v integrovanom manažmente riečnych povodí

1. Vek

2. Organizácia

3. Pozícia

4. Vedeli by ste vlastnými slovami charakterizovať pojem mokrad'?

zamokrená, ťažko využiteľná plocha, ktorá si pred akýmkoľvek využitím vyžaduje dôkladné odvodnenie

územie s trvalou alebo dočasnou, stojatou alebo tečúcou vodou, ako napr. močiar, slatina, rašelinisko, vodný tok, jazero a pod.

iné

5. Mokrade sú významné z hľadiska ochrany biodiverzity (ochrany prírody). Vedeli by ste však uviesť aj iné (hospodársky) významné funkcie mokradí? Uveďte aspoň 3.

- 
- 
- 
- 

6. Viete uviesť konkrétny príklad, kedy sa zväčšením plochy mokradí dosiahlo zlepšenie vodohospodárskych problémov v povodí (napr. vysychanie vodného toku a nedostatok vody, záplavy, erózia pôdy, znečistenie vodného toku a pod.)?

nie

áno, napríklad

7. Integrovaný manažment povodí znamená zohľadnenie a vyváženie požiadaviek iných sektorov (ako je energetika, doprava, poľnohospodárstvo, rybné hospodárstvo, cestovný ruch, ochrana prírody, atď.) vo využívaní dostupných vodných zdrojov v rámci povodia za účelom ich dlhodobej ochrany. Môžu podľa Vás mokrade prispieť k tomuto cieľu, mala by

teda starostlivosť o mokrade byť súčasťou integrovaného manažmentu povodí na Slovensku?

áno

nie

neviem

8. Čo je podľa Vás prekážkou zavedenia integrovaného manažmentu povodí na Slovensku? Môžete uviesť viac príkladov.

▪

▪

▪

▪

## EVALUATION OF THE QUESTIONNAIRE: ROLE OF WETLANDS IN THE INTEGRATED RIVER BASIN MANAGEMENT (AFTER SEMINARS)

The total number of respondents and fulfilled questionnaires: **100**

### Abbreviations used in graphs:

SWMA – Slovak Water Management Agency

CO – state administration – county office

DO – state administration – district office

MU – self-government, municipality

### **1. Age**

More than half of respondents (58%) belong to the category 31-50 year, 26% were up to 30 years and 16% belong to the category 51 and more years (graph 1).

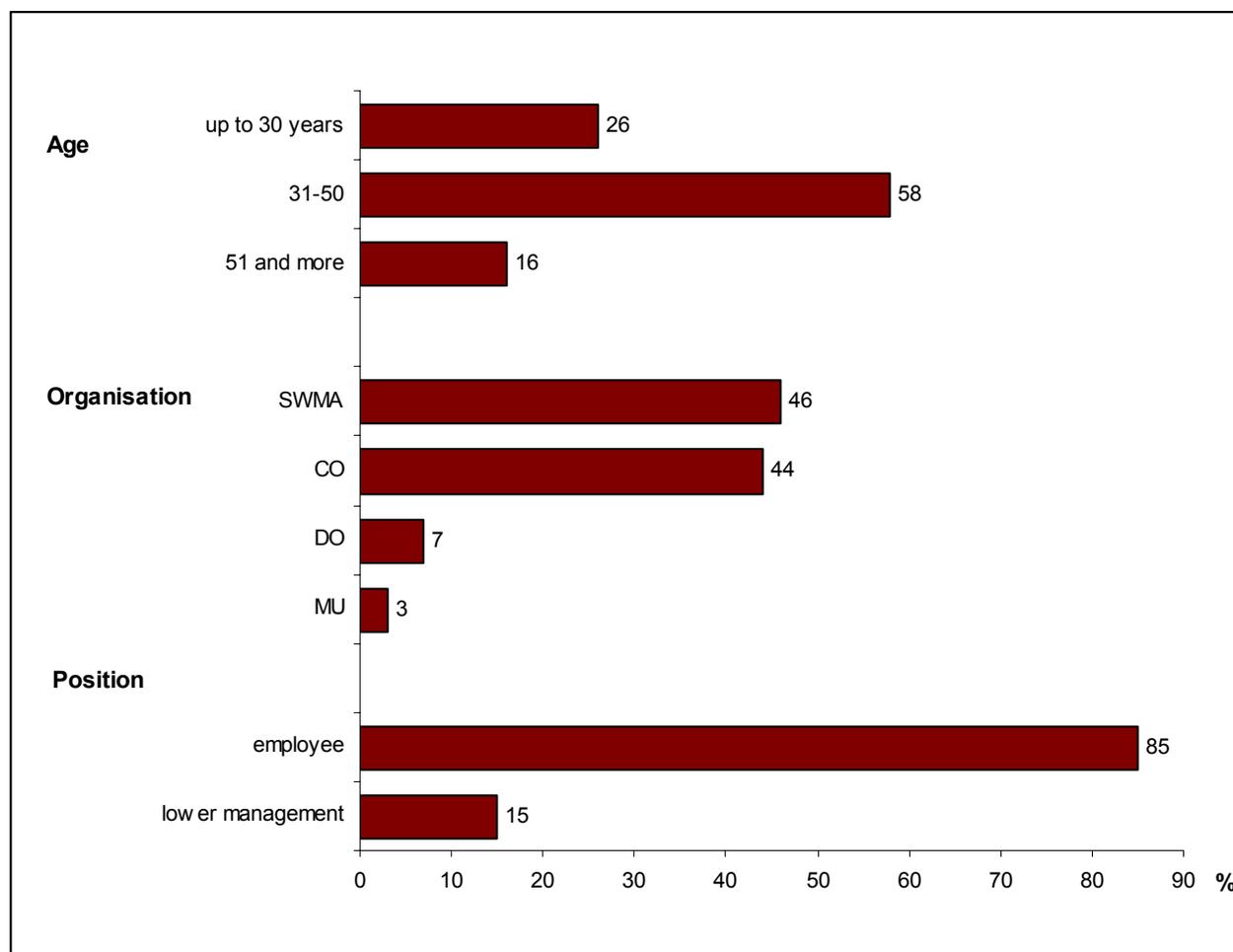
### **2. Organisation**

From the total number of respondents 46% were employees of Slovak Water Management Agency, 44% were employees of state administration – county offices, 7% from the state administration – district offices and only 3% were from municipality (graph 1).

### **3. Position**

85% of all respondents were employees and 15% were from lower management (head of department) (graph 1).

**Graph 1:** Respondents according to age, organisation and position.



#### 4. What you mean by wetland?

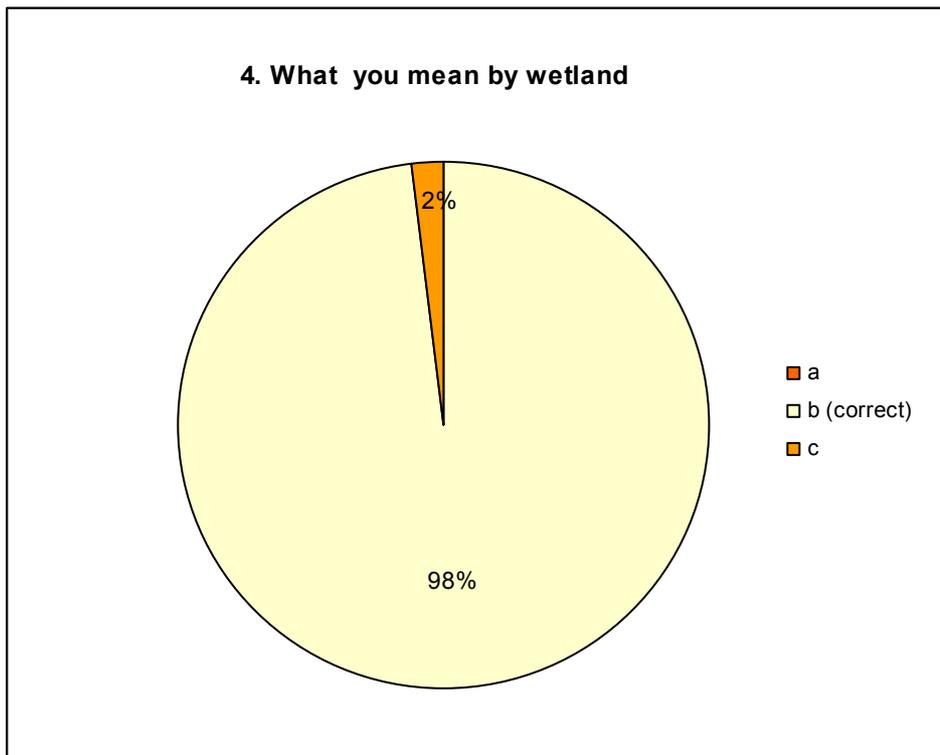
*a) wet, unusable area, which has to be carefully ameliorated before any use*

*b) area with permanent or temporary, standing or flowing water, as for example a marsh, fen, peatland, stream, lake, etc.*

*c) other*

Respondents were asked to make their own definition. It was evaluated according to which answer *a)* *b)* or *c)* was their definition closer. Almost all of respondents understand wetlands similar to answer *b)*. No body declared answer *a)* (percentage are in graph 2). But some of respondents' mentioned, that after seminars, they change their opinion on what does it mean wetland, and although they say a good definition, they were not familiar with such a broad definition of wetlands.

**Graph 2**



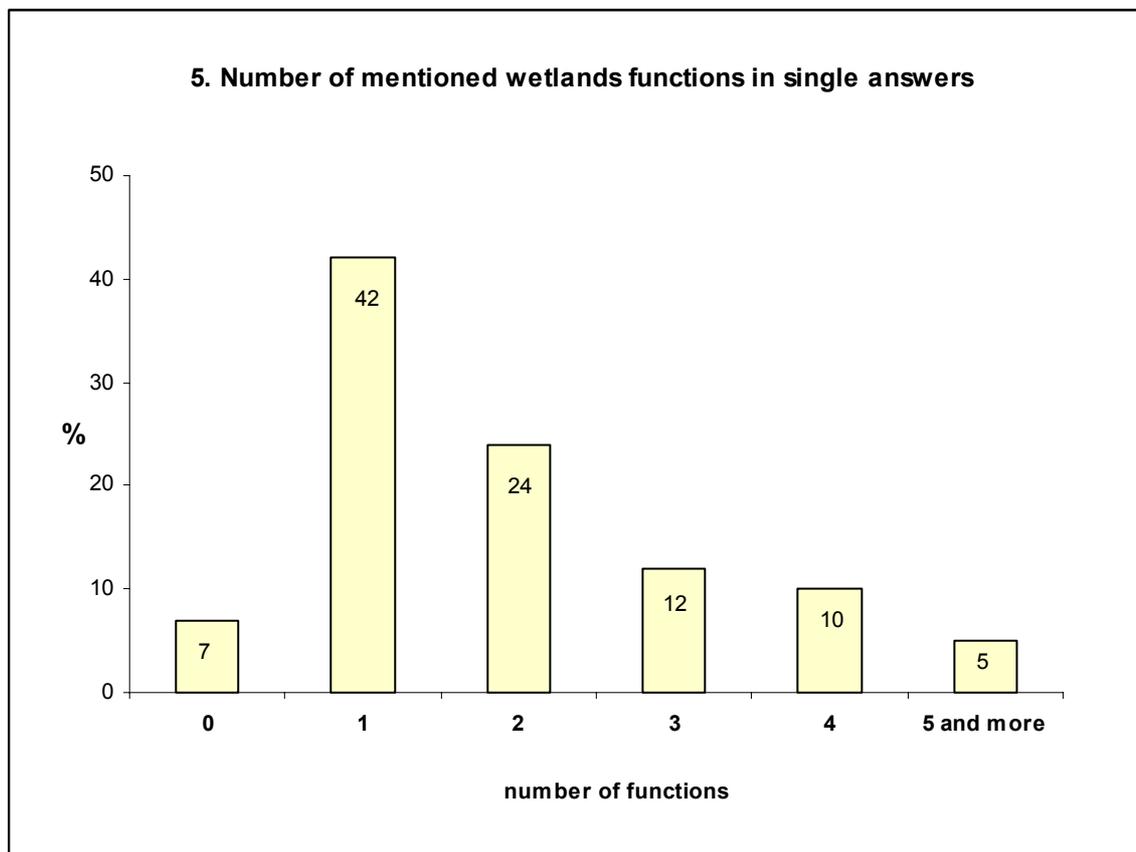
**5. Wetlands are important because of protection of biodiversity (nature protection). Could you mention also another function of wetlands (for example economical function)? Mention at least 3.**

83% of respondents were able to mention at least one of wetlands function, besides of nature value function. 27% from this amount mentioned at least 3 function. Only 3% of respondents were not able to mention any such wetland function.

In the graph 3 is shown, how many functions were respondents able to answer immediately (it must be considered a method of questionnaire –telephonic interview, when they do not have enough time to consider and there were interrupted from their work). 42% were able to mention immediately only 1 function, 24% mention 2 functions and 27% mention a at least 3 functions of wetlands.

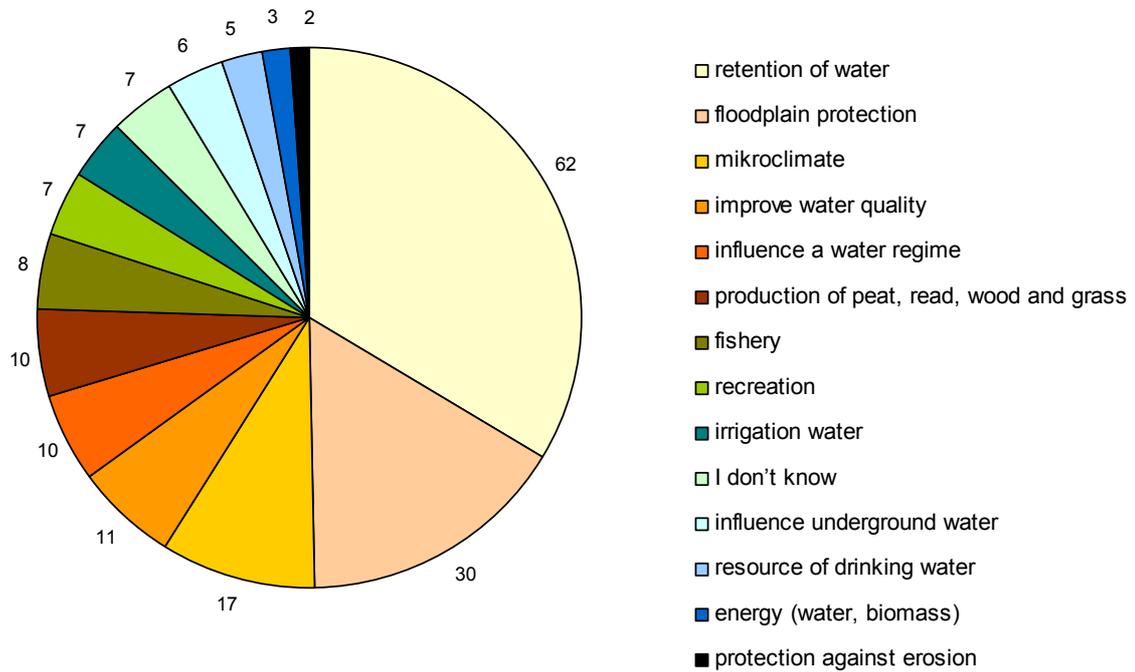
Graph 4 describes wetland functions mentioned by respondents and their frequency of occurrence in answers. More than half of respondents (in 62 answers) were conscious of wetland function as retention of water. Also floodplain protection (in 30 answers) and influence of microclimate (in17 answers) was frequently answered. Other mentioned functions were also production of peat, wood, grass, reed and fishery. Few people mentioned as function - source of drinking water, influence on underground water, water energy etc.

**Graph 3**



**Graph 4**

**5. Occurrence of (economical) wetland function mentioned in respondents answers**



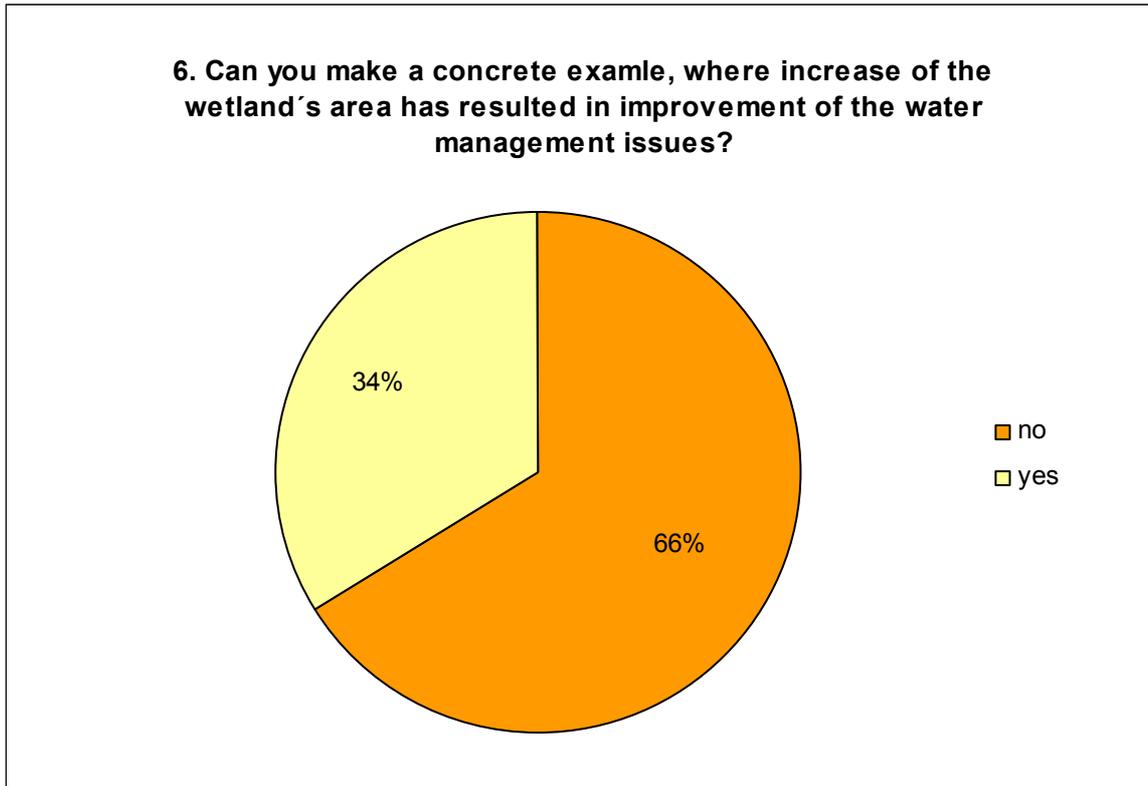
**8. Can you make a concrete example, where increase of the wetlands area has resulted in solving/improvement of the water management issues in the river basin (such as draining of the river, draughts, floods, soil erosion, river pollution etc.)?**

*a) no*

*b) yes, for example*

More than half of respondents (66%) answered, that they do not know about such an example, although there was a presentation about such case on seminars. 34% of them mentioned some example, and 25% from this amount has their knowledge's already from seminars (graph 5).

**Graph 5**

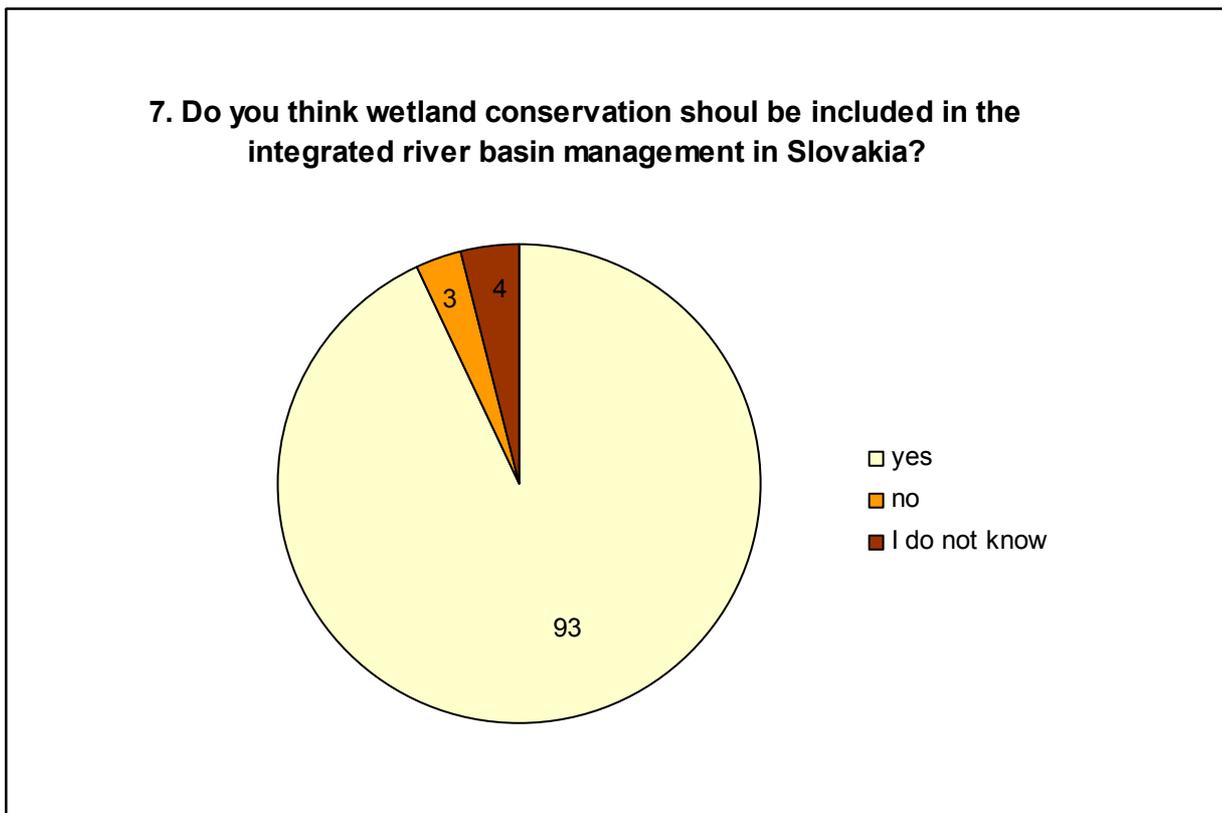


**7. Integrated river basin management reflect and balancing the demands of different sectors (such as energy, transportation, agriculture, fisheries, tourism etc.) in planning and implementation of the water management in the river basin with the aim of long-term protection of available water resources. Do you think that wetlands can contribute to this aim, and protection of them should be included into integrated river basin management?**

- a) *yes*
- b) *no*
- d) *I do not know*

93% of respondents are thinking that wetland should be included into integrated river basin management. Some of them remarked, that they must say *yes*, because of this broad wetland definition. Only 3% of respondents declared that it is very specific area and it should be only in competency of nature protection. 4% of respondents have not able to make their own opinion. Results are in the graph 6.

**Graph 6**



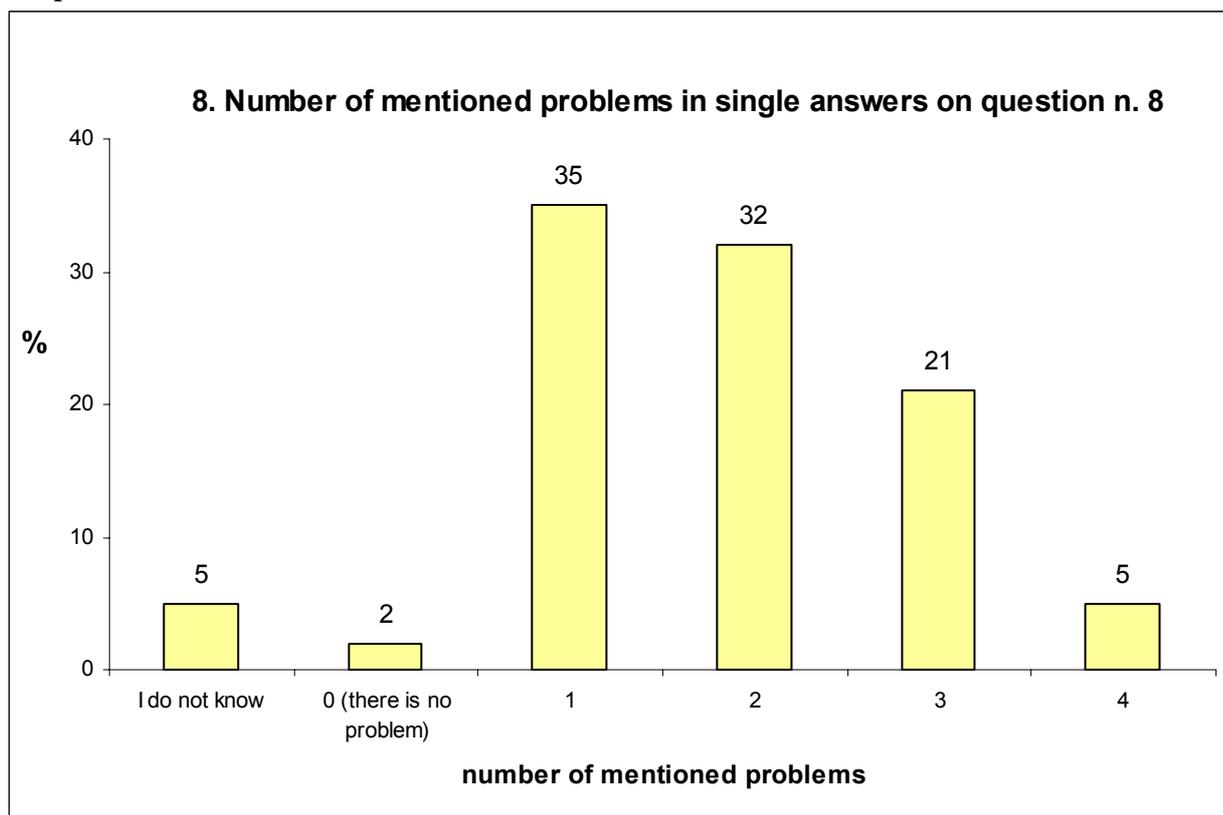
**8. What are the main problems with implementation of integrated river basin management in Slovakia? You can mention more than 1 problem.**

93% of respondents mention at least one problem. Only 2% mentioned that everything is OK, and there is no problem. 5% of respondents mentioned, that they do not have enough information to make some opinion on this question. Results are in the graph 7.

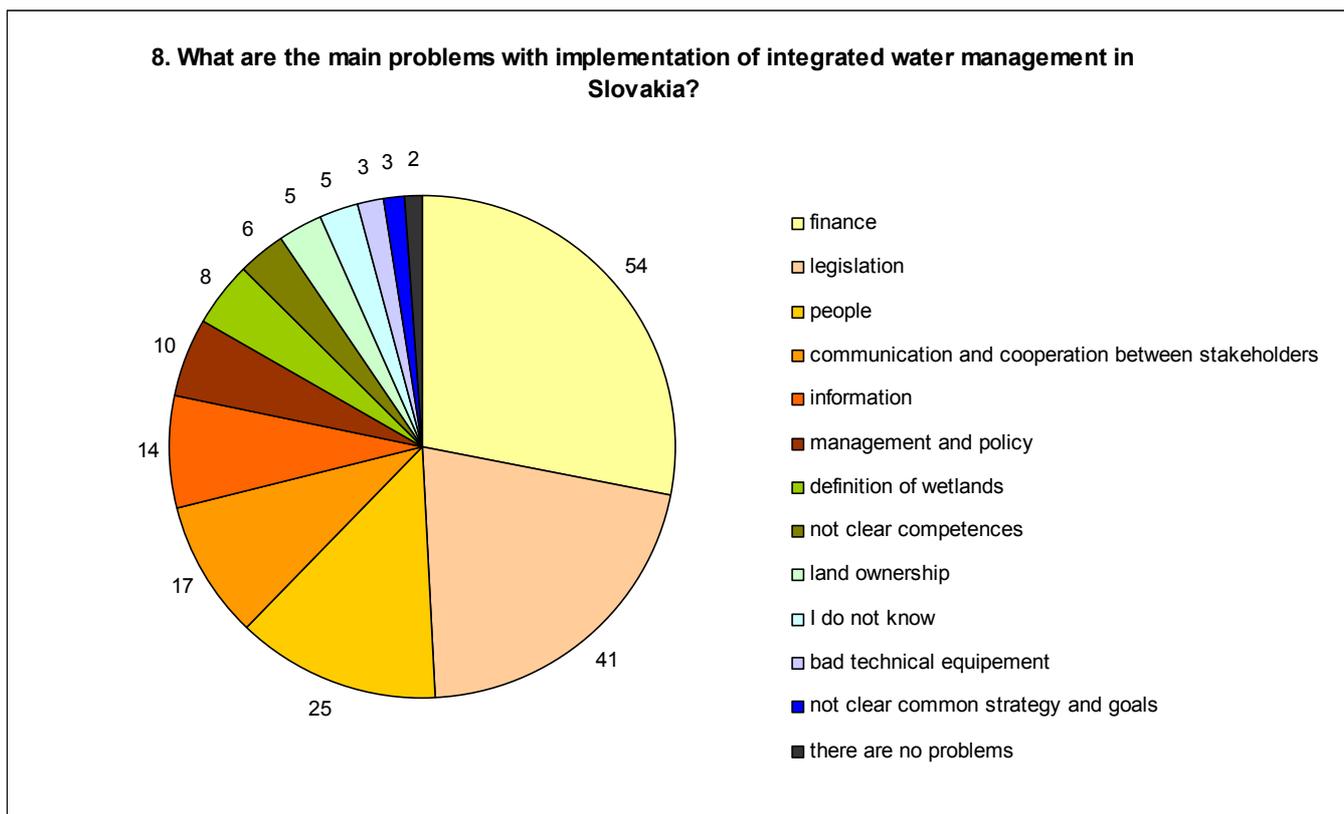
Respondents identified totally 11 main problems with implementation of integrated water management. The most frequently answered problem were finances (in 54 of answers). On the second place was legislation. The main reason for legislation was that is unclear and there are lot of contradiction between water law and nature protection law. Problem is also with definition of wetlands, because there is more than one definition and some of respondents were not familiar with very broad definition of wetland (Ramsar definition?). 13% of respondents mentioned that there is also problem with people – not only because of lack of employees, but also in approach of people to this problem what is connecting also with lack of information and lack of experts in this area. 17% of respondents see besides others also big problem in communication and cooperation between stakeholders, especially between nature protectors and water managers. Problem is also with management from a higher position, and there are sometimes not clear competences.

On the graph 9 are shown also main identified problems according to organisation.

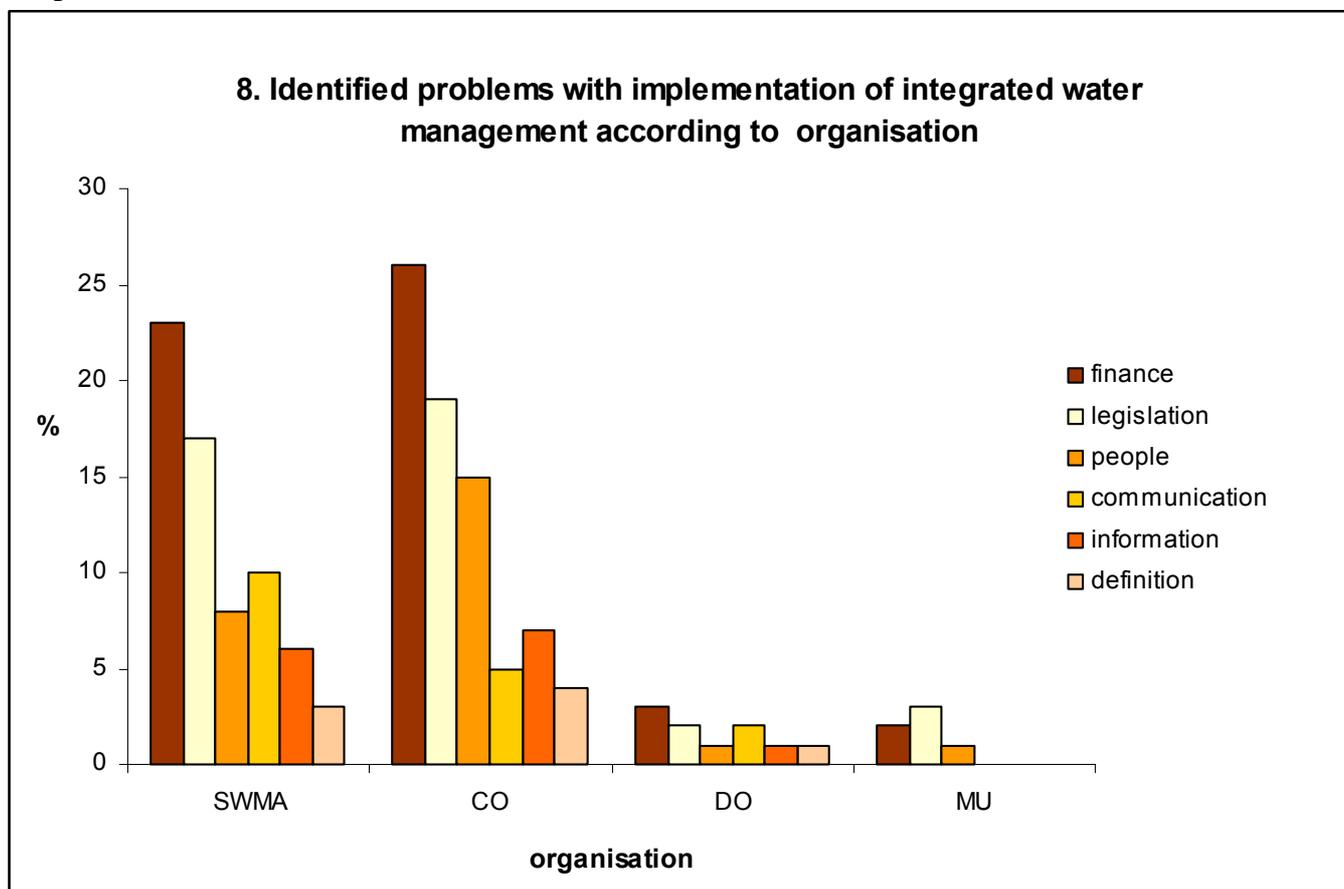
**Graph 7**



**Graph 8**



**Graph 9**



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