



Latvia  
Lithuania  
cross border  
cooperation programme  
2007 - 2013



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LATVIJAS  
VIDES, ĢEOLOĢIJAS UN  
METEOROLOĢIJAS CENTRS

# Venta River Area Residents' Awareness About Water Management Issues



Survey Report

April - June 2011

marketing and public opinion research centre



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## **SURVEY DESCRIPTION**

From 26 April – 11 May 2011 the marketing and public opinion research centre SKDS conducted a study with the aim of determining the level of awareness of Venta River area residents on water management issues. The survey was conducted through the telephone interview method. Interviews with residents of Latvia were carried out by research centre SKDS telephone interviewers, while to ensure a high quality of interviews within the territory of Lithuania, the highly qualified telephone interviewers of the Lithuanian research company RAIT Ltd were involved. Such a survey method ensured the carrying out of high quality interviews in the respondent's preferred language (in Latvia - Latvian and Russian, in Lithuania - Lithuanian). The results of the research were compiled and analyzed by research centre SIA SKDS experts.

In Latvia, 505 permanent residents of the Kurzeme Planning region aged 18 to 74 years were surveyed. In Lithuania, 501 permanent residents of the Klaipeda and Telsiai Counties aged 18 to 74 were surveyed. The selection of respondents was carried out on a stratified multistage random sampling basis, taking into account the proportions of population distribution by age, gender, level of education (primary, general secondary, vocational secondary, higher) and attachment to administrative territorial units. To obtain higher representativity, the data were subjected to the weighing procedure by the parameters: age, gender, and ethnicity.

The beginning of the report provides an overview of the main survey results. The main body of the report reflects survey results for Latvia and Lithuania separately, as well as for the complete survey territory. The sections on Latvia and Lithuania also include survey technical information and socio-demographic profiles of respondents. The appendix of the report holds the questionnaire in Latvian, a statistical error evaluation table, as well as data tables showing a detailed breakdown of responses in all the defined socio-demographic groups.

## SUMMARY

The results of the survey show that residents of the Venta River area visit bodies of water very willingly and often. Within the past five years, over two thirds of those surveyed have visited bodies of water more than 10 times a year in order to swim, fish, take a boat ride or just to relax. Only 4% of respondents have answered that they have not visited bodies of water within the past five years.

*No statistically significant differences can be observed between the answers given by respondents in Latvia and Lithuania.*

### Questions Regarding Water Quality

Residents of the Venta River area have an average level of understanding of water quality parameters – less than half of the respondents replied that the good quality of water in a lake or river is best characterized by the living organisms existing within it and/ or the water's correspondence to the natural state of a river or lake.

*20% of total respondents in Latvia and 10% of all respondents in Lithuania have given both of the correct responses*

*The two most popular response options in Latvia are: 'living organisms consistent with a river or lake exist there' (47%) and 'the water corresponds to the natural state of a river or lake' (44%), while in Lithuania – 'swimming is allowed there' (55%) and 'it can be drunk without any additional treatment' (52%).*

Venta River area respondents have mentioned a small number of fish, blooming of blue-green algae and the cloudiness/ murkiness of water as the main indicators of low quality of water.

*In the evaluation of respondents in Latvia, the most popular indicators of low quality of water in a river or a lake are 'blooming of blue-green algae' (84%) and 'small number of fish' (80%). The answers given by respondents in Lithuania ranked differently according to frequency of mentioning, and the most often given answers are 'small number of fish' (80%) and 'cloudy/ murky water' (70%).*

The most harmful human activities that have a negative impact on the quality of river, lake, coastal and underground waters have been stated by respondents to be industrial waste water, sewage waste water created by households, intensive fertilization of agricultural lands and port activity.

*No statistically significant differences can be observed between the answers given to this question by respondents in Latvia and Lithuania.*

Almost all respondents have mentioned the treatment of contaminated sites and treatment of wastewater before release into the environment as the most effective measures for improving the condition of waters. Over 4/5 of respondents have also mentioned the creation of protective zones around waters, stricter environmental protection requirements for ports and hydroelectric plants, as well as restrictions in the use of fertilizers in agriculture.

*Opinions differ regarding the question on the use of eco-friendly detergents in households: in Latvia, 73% have mentioned this as an effective measure for improving the condition of water, while in Lithuania – 60% of all respondents.*

Over half of those surveyed have heard of excessive plant growth due to increased concentration of nutrients; the term 'eutrophication of water' is explained correctly by slightly over a fifth of Venta River area residents.

*After reading out the description: "the eutrophication of water is excessive plant growth due to increased nutrient (nitrogen and phosphorus) concentration", 67% of respondents in Latvia and 50% of those in Lithuania state that they have heard of the problem of eutrophication of waters.*

*A spontaneous correct explanation (before the description is read out) has been given by 28% of respondents in Latvia and 16% in Lithuania.*

### **Questions Regarding Water Resources Management**

The level of knowledge of Venta River area residents on what is included in the concept of 'water resources management' can be evaluated as good – most (two thirds) of respondents have answered that this concept includes water supply and sewerage, and surface and underground water management/ protection, as well as the maintaining of water biodiversity.

*This indicator is slightly higher in Latvia than in Lithuania (respectively 70% and 60% of respondents).*

About half of those surveyed have heard of plans for the management of specially protected nature territories, while a lower proportion of respondents – approximately a fourth - have heard of plans for the management of river basin areas.

*39% of respondents in Latvia and 40% in Lithuania have heard of plans for the management of specially protected nature territories. 27% of respondents in Latvia and 25% in Lithuania have heard of plans for the management of river basin areas*

The main sources Venta River area residents have received information from on issues of river, lake, coastal and underground water management until now are TV and print media. The same sources are mentioned as preferred for obtaining information in the future on issues of water management.

*Latvia and Lithuania have similar structures of media consumption, while frequency differs. The most frequently used type of media is TV (67% in Latvia, 55% in Lithuania), followed by print media (54% in Latvia, 50% in Lithuania), the internet (40% in Latvia, 31% in Lithuania) and radio (35% in Latvia, 29% in Lithuania).*

A desire to get involved in the management of a river, lake or coastal area has been expressed by more than two fifths of respondents. Almost all of these respondents have also stated their willingness to take part in joint river or lake cleanups and similar events.

*38% of respondents in Latvia and 40% in Lithuania would be willing to get involved in river or lake cleanups and similar events. 25% of respondents in Latvia and 27% in Lithuania would be willing to participate by expressing their opinion via the internet. Taking part in public discussions near their place of residence is seen as an option by 28% of respondents in Latvia and 25% in Lithuania.*

# **MAIN RESULTS**

## **LATVIA**

## SOCIO-DEMOGRAPHIC PROFILE OF RESPONDENTS

		TOTAL RESPONDENTS	
		Col %	N
TOTAL		100.0	505
.			
GENDER	Male	47.8	238
	Female	52.2	267
.			
AGE	18-24	15.5	71
	25-34	18.7	83
	35-44	18.1	98
	45-54	19.1	102
	55-74	28.6	151
.			
INTERVIEW LANGUAGE	Latvian	82.4	444
	Russian	17.6	61
.			
EDUCATION	Unfinished primary/ primary	7.7	40
	Secondary / secondary vocational	62.5	314
	Level 1 Higher (college)	4.0	17
	Higher (university education)	25.9	134
.			
MAIN OCCUPATION	Employed in public administration	23.7	122
	Employed in private sector	31.0	154
	Self-employed	4.3	24
	Pensioner	21.9	115
	Student (school/ university)	9.6	44
	Homemaker	3.3	15
	Unemployed	6.2	31
.			
SETTLEMENT TYPE	Big cities	45.5	215
	Municipalities	54.5	290
.			
CONNECTING TO THE FIELD OF ENVIRONMENTAL PROTECTION	Yes	35.6	181
	No	64.4	324

*Base: total respondents in Latvia  
% - weighted, N - unweighted count*

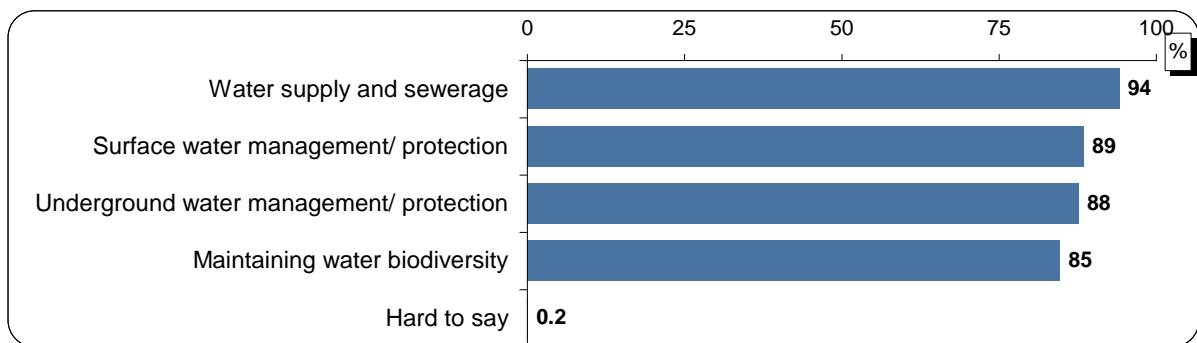


## RESULTS

### 1.1. Understanding of the term “water resources management”

*Question formulation: In your opinion, what is included in the term “water resources management”?*

Overall, 70% of respondents know that the term "water resources management" includes all four possible answers. Looking at each response option separately, it can be seen that the frequency of mentioning is high for all of them. The most frequently mentioned response is 'water supply and sewerage', mentioned by almost all the respondents.

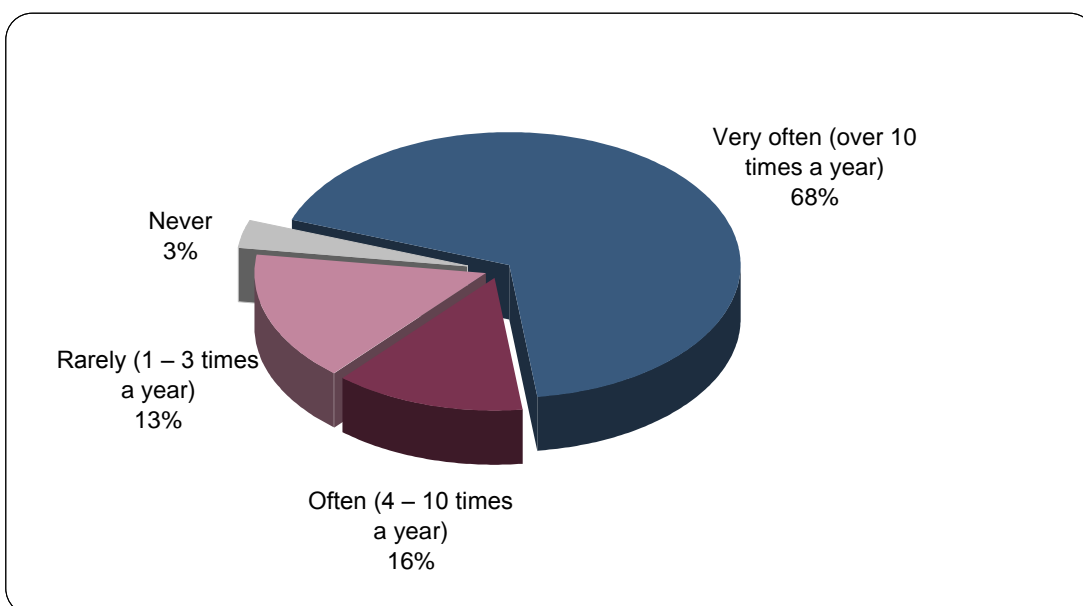


Base: total respondents in Latvia, n=505

### 1.2. Frequency of visits to bodies of water

*Question formulation: On average, how many times a year during the last 5 years have you visited any bodies of water, for example, to swim, fish, take a boat ride or just relax? A body of water can be a river, lake or beach located in Latvia/ Lithuania?*

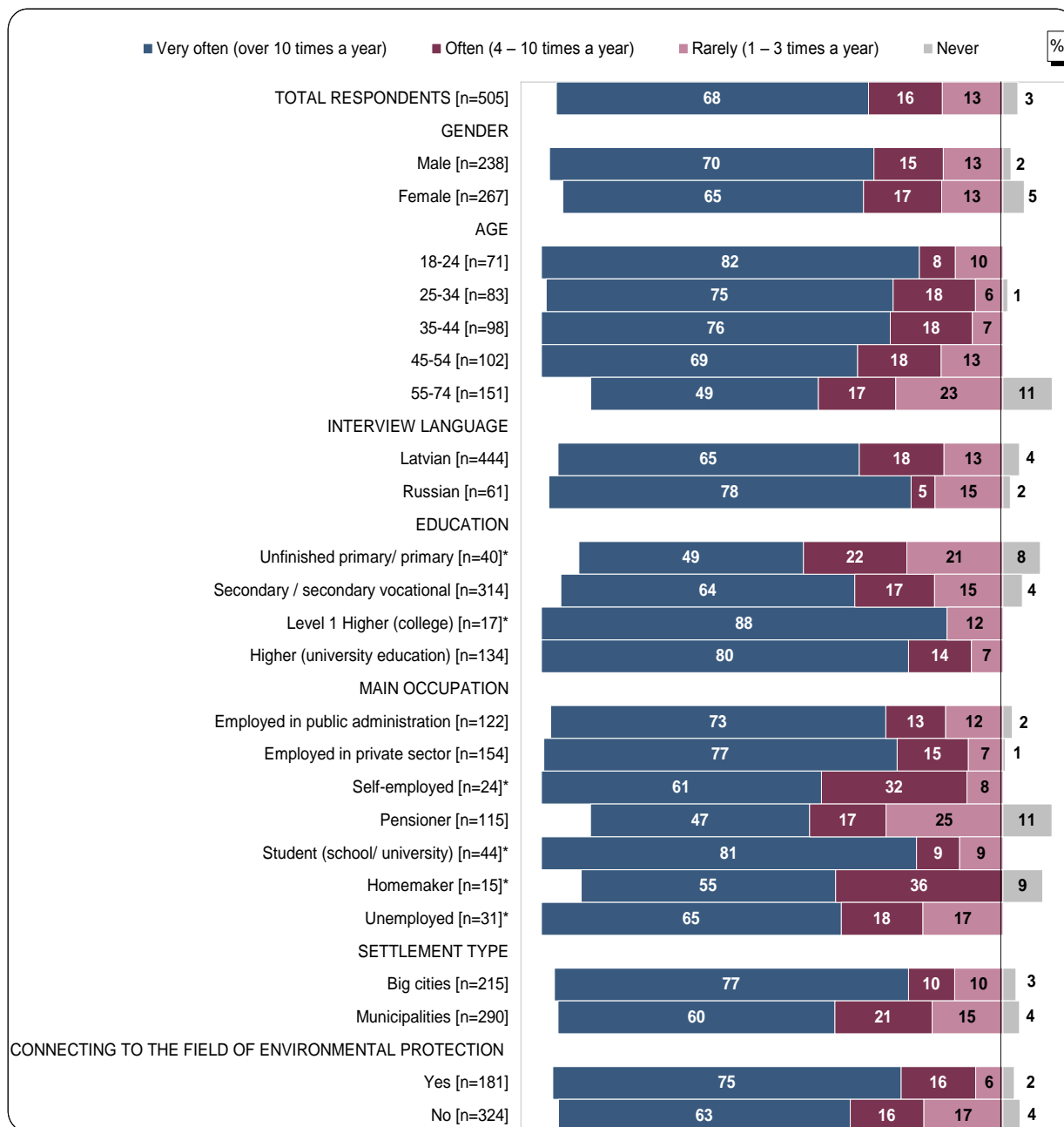
Of all the respondents, two thirds visit bodies of water more than 10 times a year. Only 3% of the respondents have never visited bodies of water in the last five years.



Base: total respondents in Latvia, n=505

**Research / project:** Venta River Area Residents' Awareness About Water Management Issues

Practices of visiting water bodies differ among different age and education level groups. As respondent age increases, frequency of visiting bodies of water decreases; a tendency of residents with a higher level of education showing a greater interest in visiting bodies of water can also be observed.

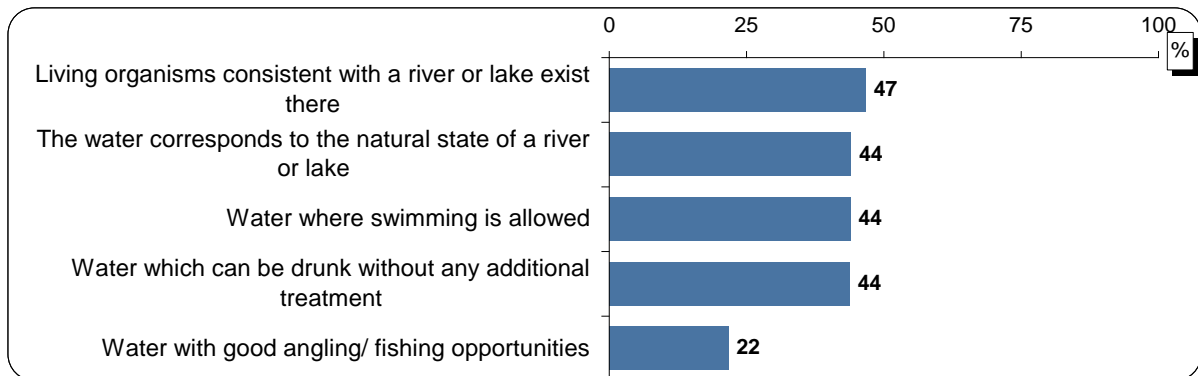


Base: respondents in the respective group [see "n=" in graph]

\*Base of the respective groups is too small to draw any conclusions about this group

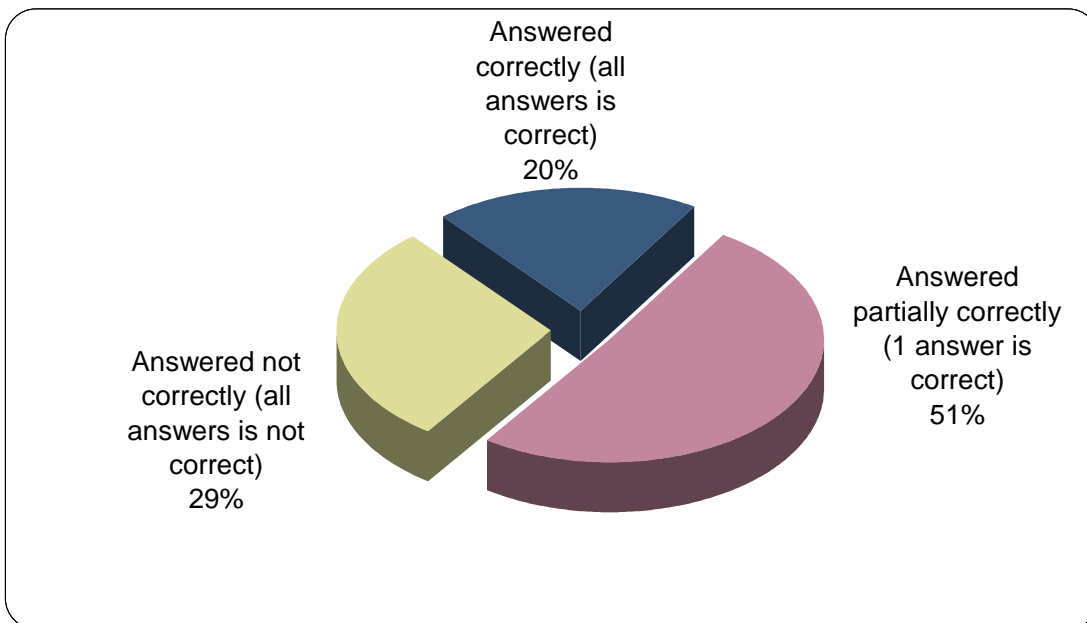
### 1.3. Understanding of good quality of water in a river or lake

*Question formulation: Now I'm going to read out five statements. Please tell me which two of these would best describe good quality of water in a river or lake, in your opinion?*



Base: total respondents in Latvia, n=505

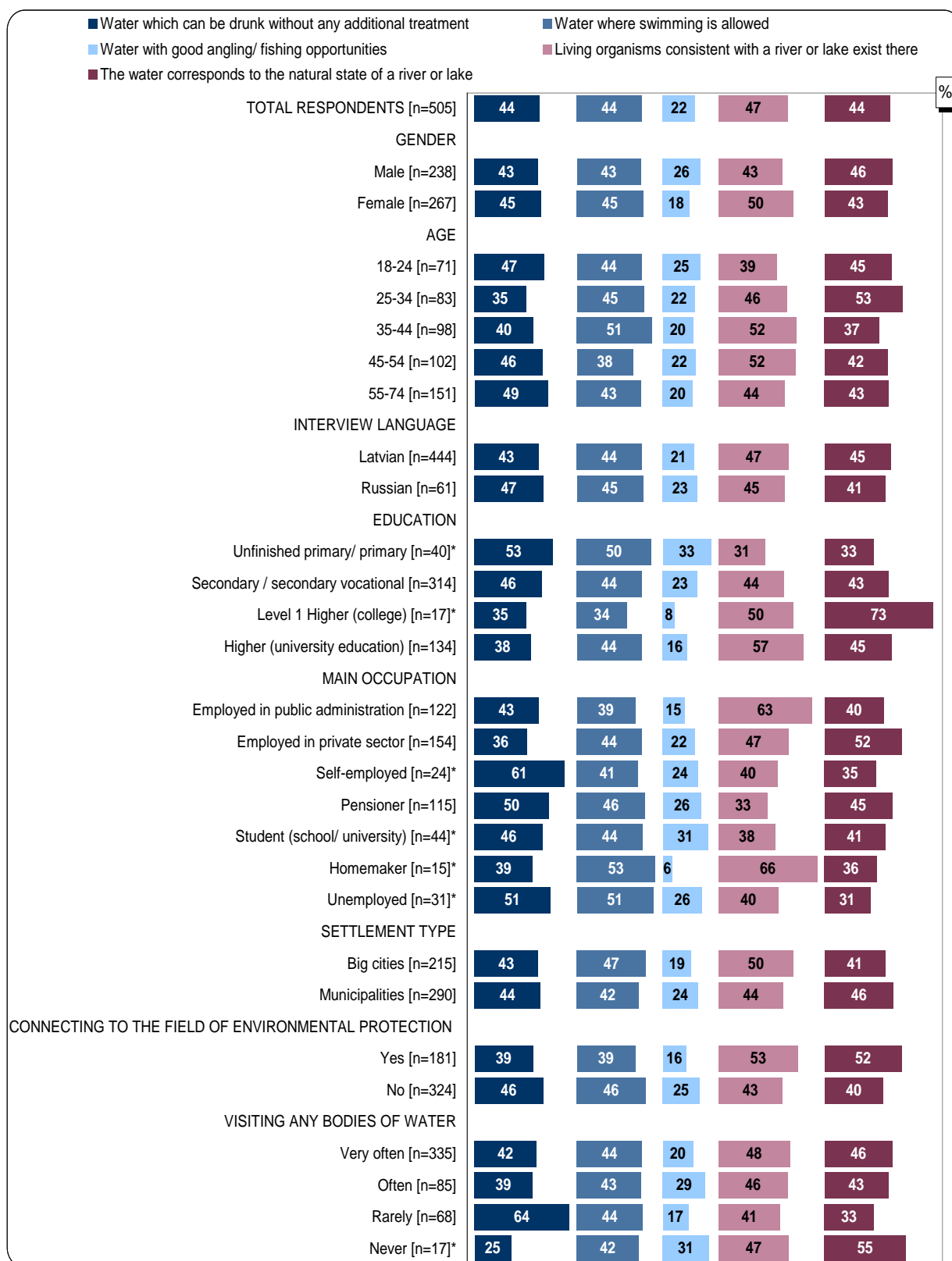
Data shows that 20% of the respondents have indicated both correct response options ('living organisms consistent with a river or lake exist there' and 'the water corresponds to the natural state of a river or lake'), 51% of the respondents have indicated one of the two correct response options ('living organisms consistent with a river or lake exist there' or 'the water corresponds to the natural state of a river or lake'), but 29% of the respondents have not indicated any of the correct response options.



Base: total respondents in Latvia, n=505

**Research / project:** Venta River Area Residents' Awareness About Water Management Issues

A higher proportion of correct answers can be observed within the groups of respondents who have higher levels of education and whose work, studies or leisure activities are connected to the field of environmental protection.

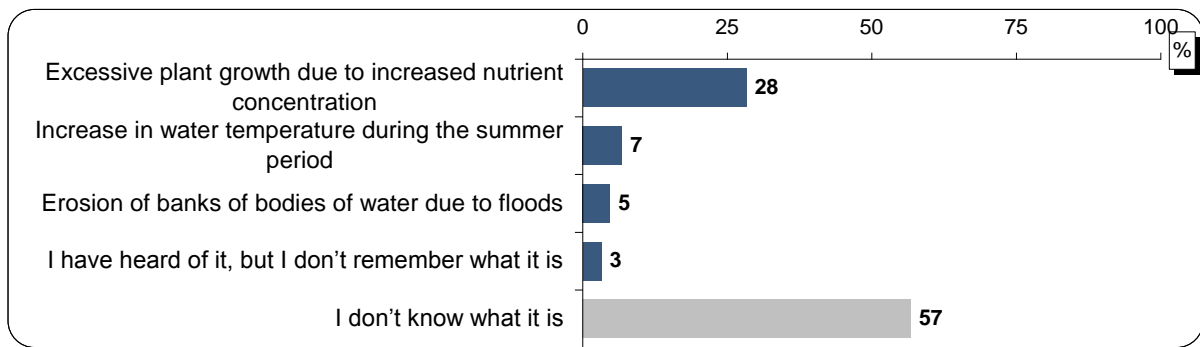


Base: respondents in the respective group [see "n=" in graph]

\*Base of the respective groups is too small to draw any conclusions about this group

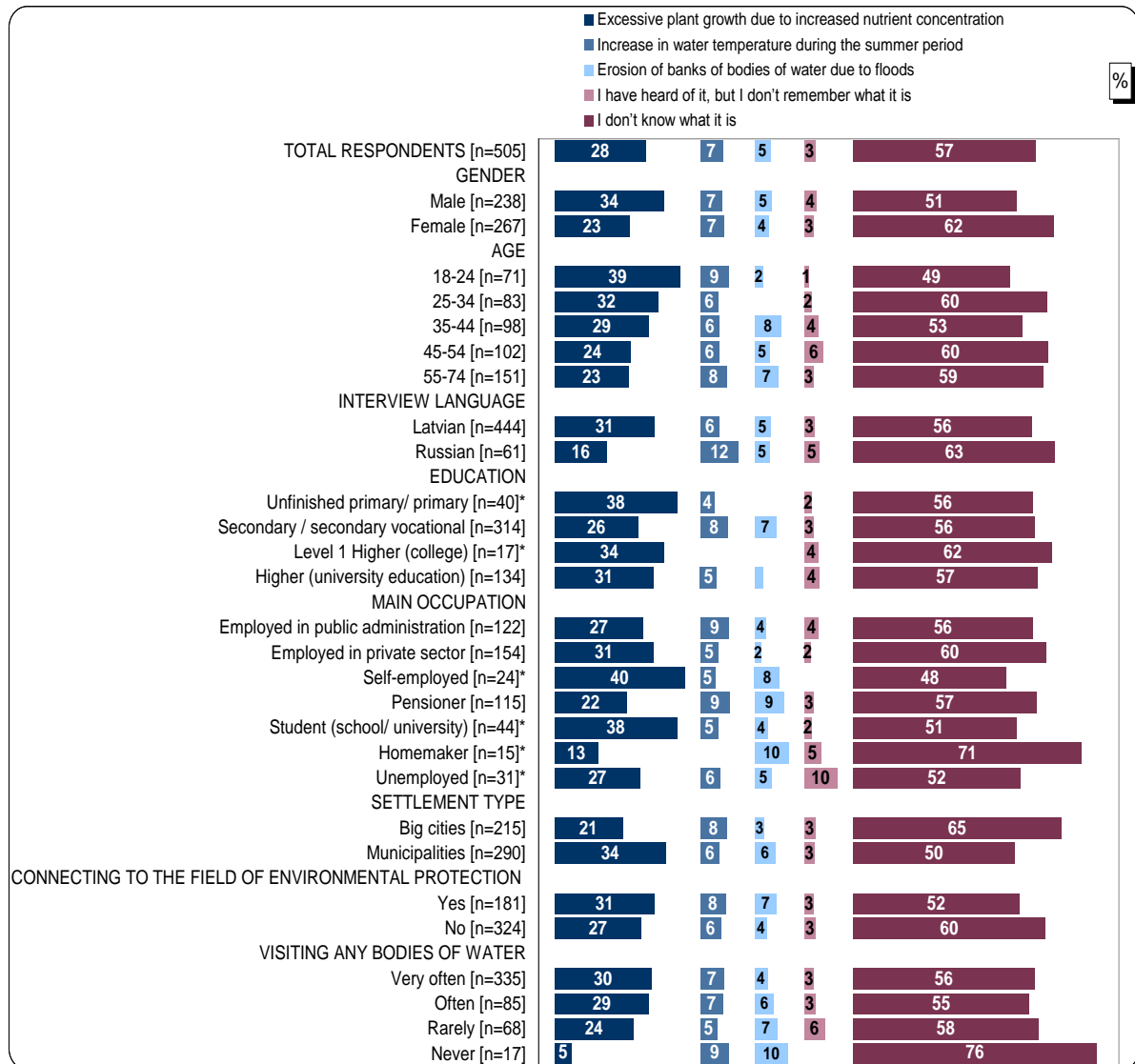
### 1.4. Understanding of the term „eutrophication of water”

*Question formulation: What, in your opinion, is the eutrophication of water?*



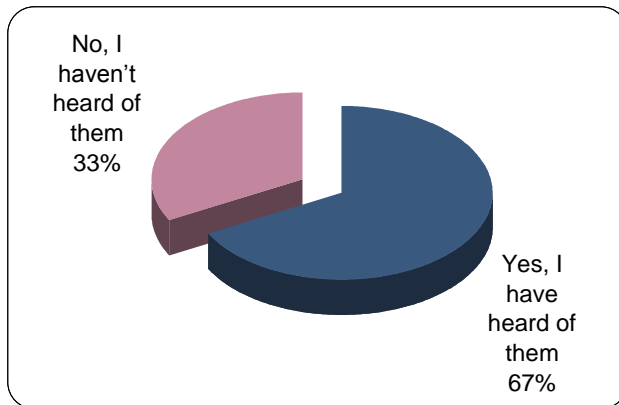
Base: total respondents in Latvia, n=505

Approximately a third of respondents have given the answer that eutrophication of waters is excessive plant growth due to increased concentrations of nutrients. This term and its meaning are more familiar to younger people, school students, men and respondents with a higher education, as well as those who visit bodies of water more often on average.



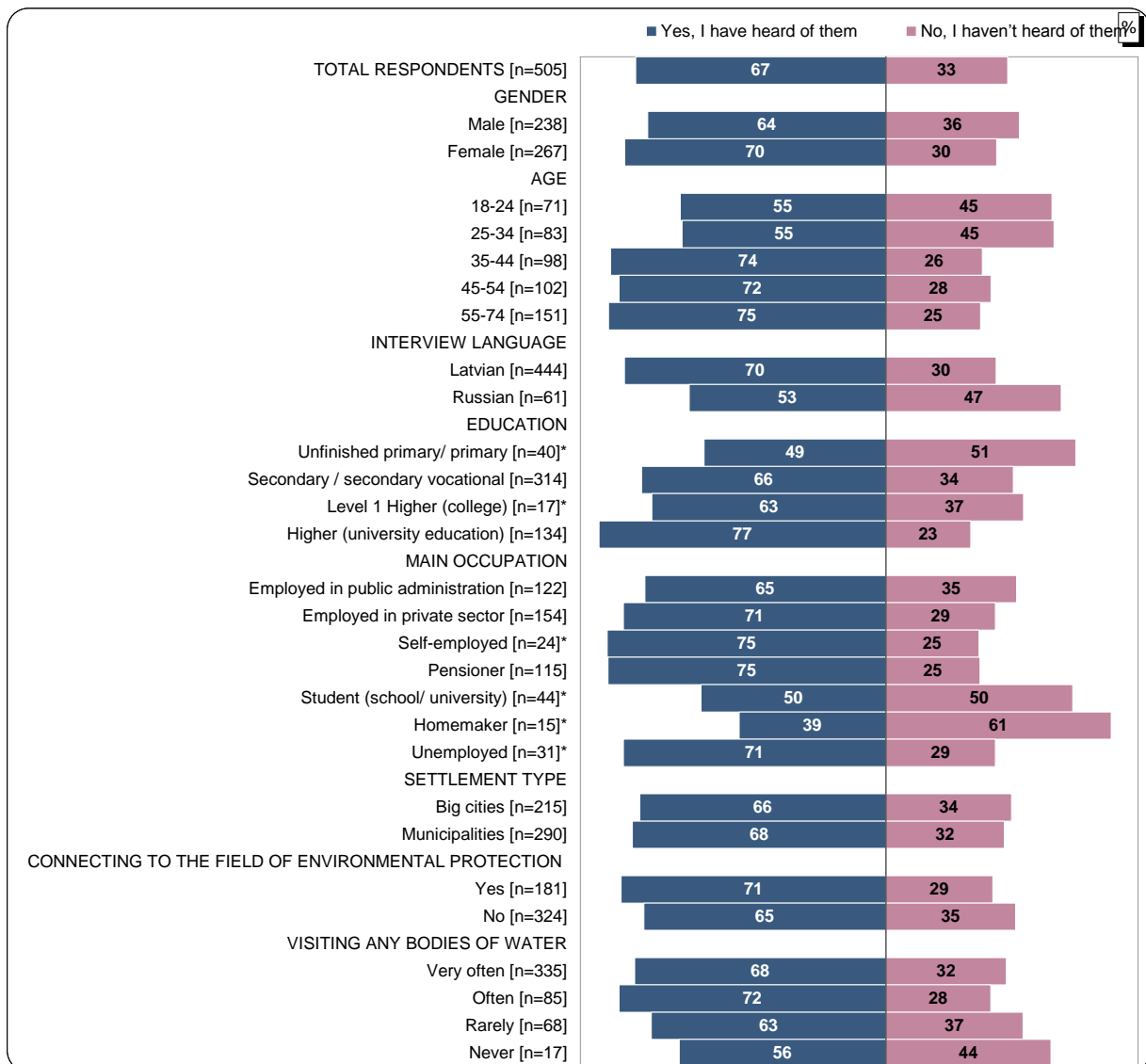
Base: respondents in the respective group [see "n=" in graph]

Question formulation: Have you heard of water eutrophication problems existing in Latvia?



After the description is read out: “the eutrophication of water is excessive plant growth due to increased nutrient (nitrogen and phosphorus) concentration”, two thirds of respondents state that they have heard of the problem of the eutrophication of waters. It can be concluded that the problem itself is more widely known than the term.

Base: total respondents in Latvia, n=505



Base: respondents in the respective group [see "n=" in graph]

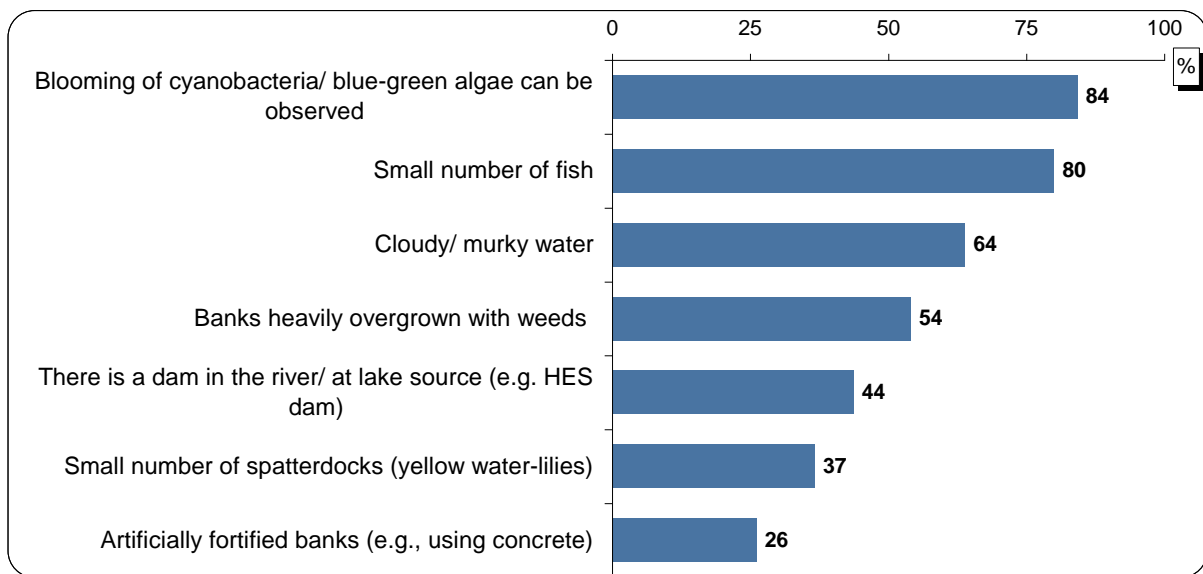
\*Base of the respective groups is too small to draw any conclusions about this group

The data shows a correlation: younger respondents know the term better, but as respondent age increases, the proportion of those familiar with the essence of the problem also increases. Differences between both linguistic groups can be spoken of - 70% of the respondents who have

chosen Latvian as a more convenient interview language have heard of the problem of eutrophication of waters, while of those who have found it easier to answer interview questions in Russian, 53% have heard of the problem. More frequently, the essence of the problem has been heard of by respondents with a secondary/ secondary vocational or higher education (in the question „What, in your opinion, is the eutrophication of water”, differences in understandings of the term according to education level are not discernible).

### 1.5. Features indicating low quality of water

Question formulation: Which of the following features would indicate low quality of water in a river or lake?

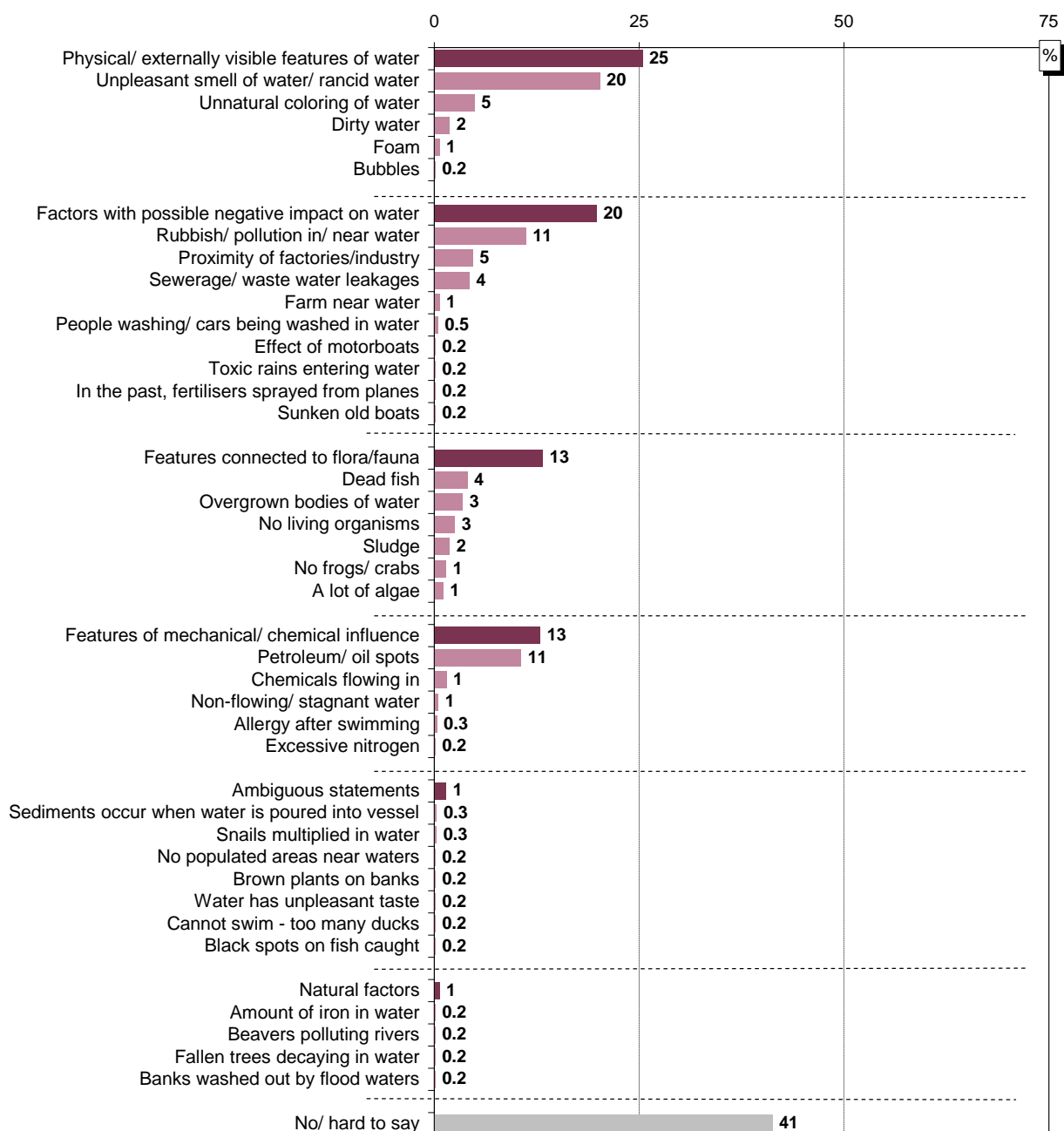


Base: total respondents in Latvia, n=505

The most frequently mentioned options are 'blooming of blue-green algae' and 'small number of fish'. Interference in processes of nature – 'artificially fortified banks' and 'dams' – are associated with low quality of water much more rarely (respectively 26% and 44% of 'yes' answers). The questions on spatterdocks and reeds are for those in the know, therefore the result can be considered very good: over half of respondents (54%) know that banks overgrown with reeds indicate low quality of water, while only a third (37%) have given an incorrect answer – a small number of spatterdocks in fact indicates good quality of water.

Question formulation: *Could you name any other indicators of low water quality in a river or lake?*

Spontaneous answers most frequently given by respondents are connected to the physical, externally visible features of water (25% of all answers), for example, water color, smell, visible bubbles and foam. 20% of all answers are factors that could have a negative impact on water quality, e.g., farms near water or the effect of motorboats. These are followed by indicators connected to flora/ fauna (13% of all answers), for example, sludge, dead fish, lack of frogs and/or crabs. Indicators connected to mechanical or chemical impact form 13% of total responses. These are, for example, petroleum or oil spots. An insignificant number of answers connected to natural phenomenon are mentioned (1%), e.g. harm caused by beavers.

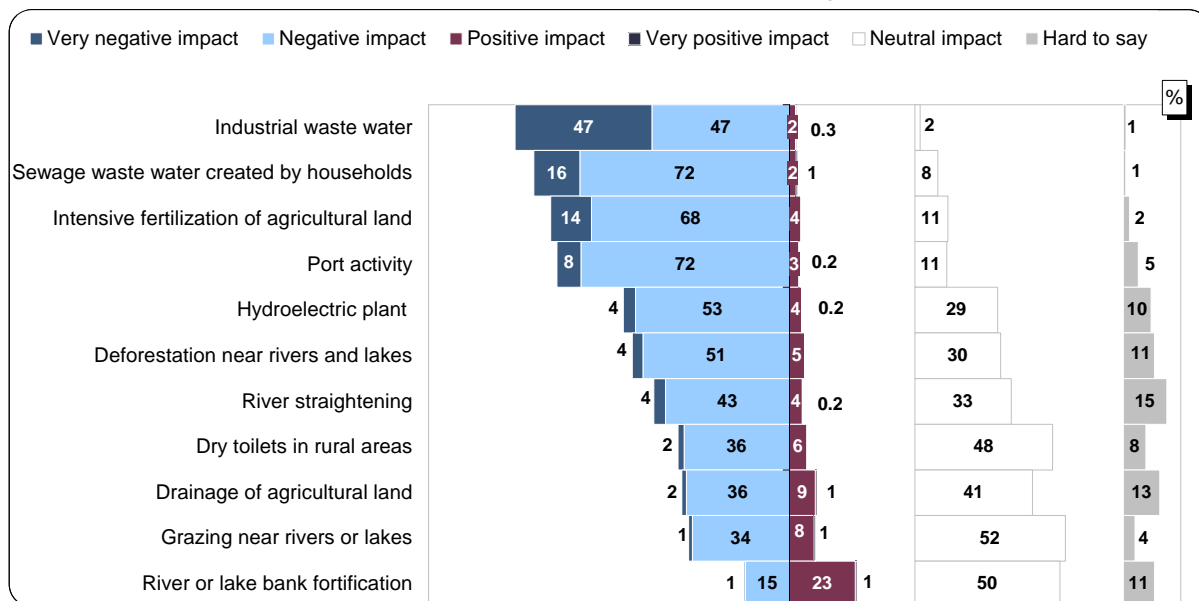


Base: total respondents in Latvia, n=505



### 1.6. Evaluation of factors impacting the quality of waters

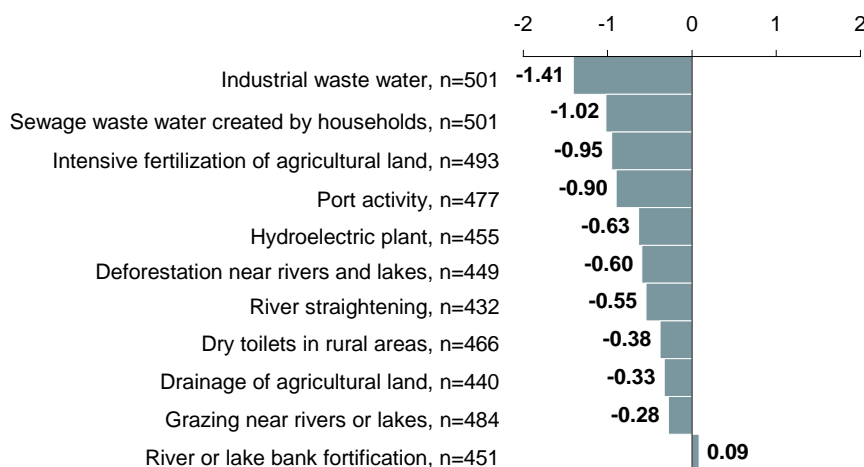
*Question formulation: What type of impact – a positive or negative one - do you think the following human activities have on the quality of river, lake, coastal or underground waters?*



Base: total respondents in Latvia, n=505

It can be seen that almost all respondents have given a negative evaluation of the impact of industrial waste water (47% of those surveyed assessed it as 'very negative'). The impacts of household sewage waste water, intensive fertilization of agricultural land and port activity have also been assessed as especially negative.

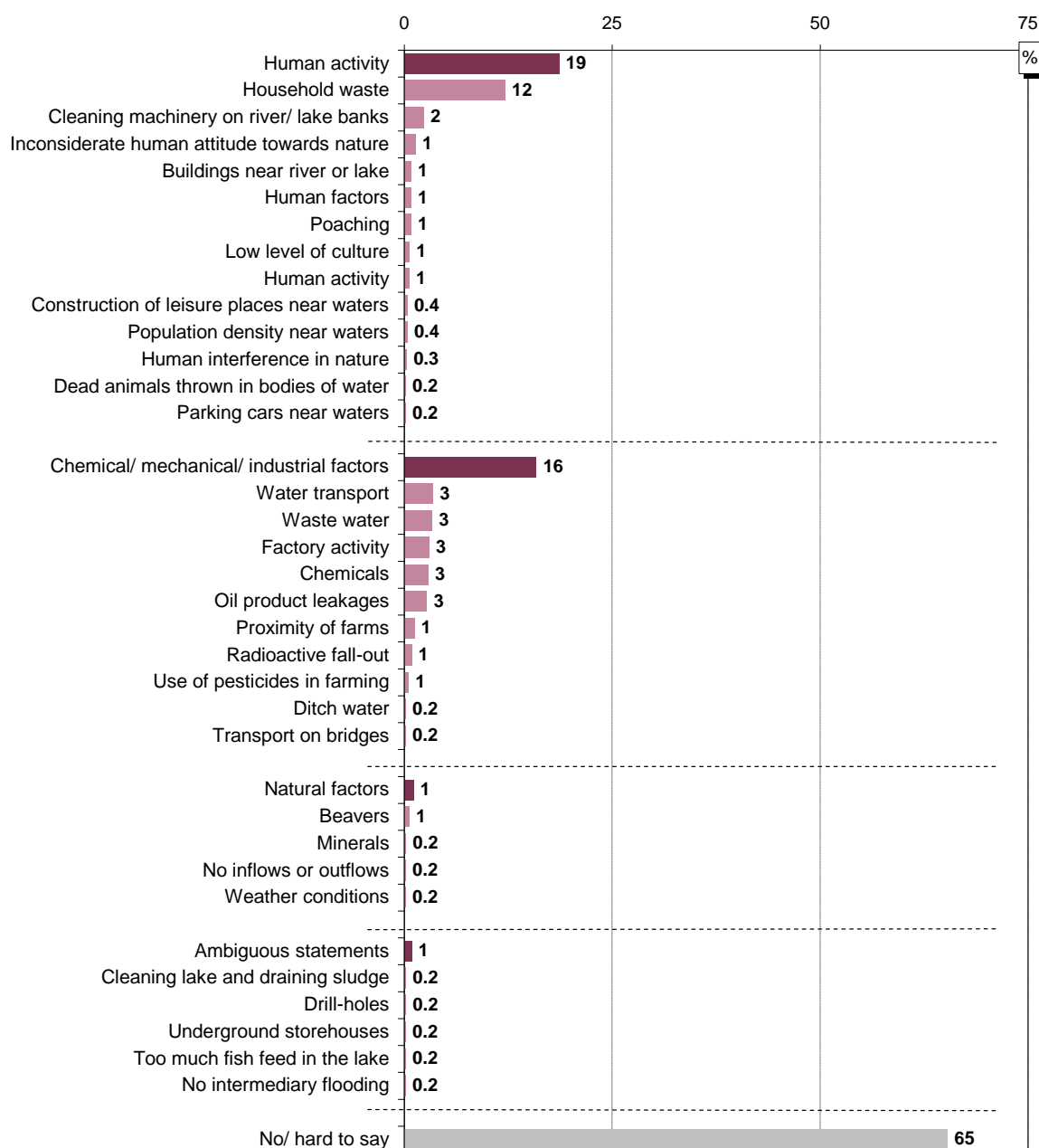
Average evaluation in scale -2 (very negative impact) to 2 (very positive impact)



Base: respondents in Latvia, who have given a specific evaluation, [see "n=" in graph]

Assigning each of the mentioned activities an index, where a value of '-2' would mean that every single respondent have given the answer 'very negative impact', and '2' would mean that every single respondent has given the answer 'very positive impact', it can be seen that the only human activity to be assessed as positive rather than negative is the fortification of river and lake banks. There is a less markedly negative attitude towards activities that have existed since days of old, for example, grazing near rivers and lakes.

*Question formulation: Could you name any other factors with a negative impact on the quality of river, lake, coastal or underground waters?*

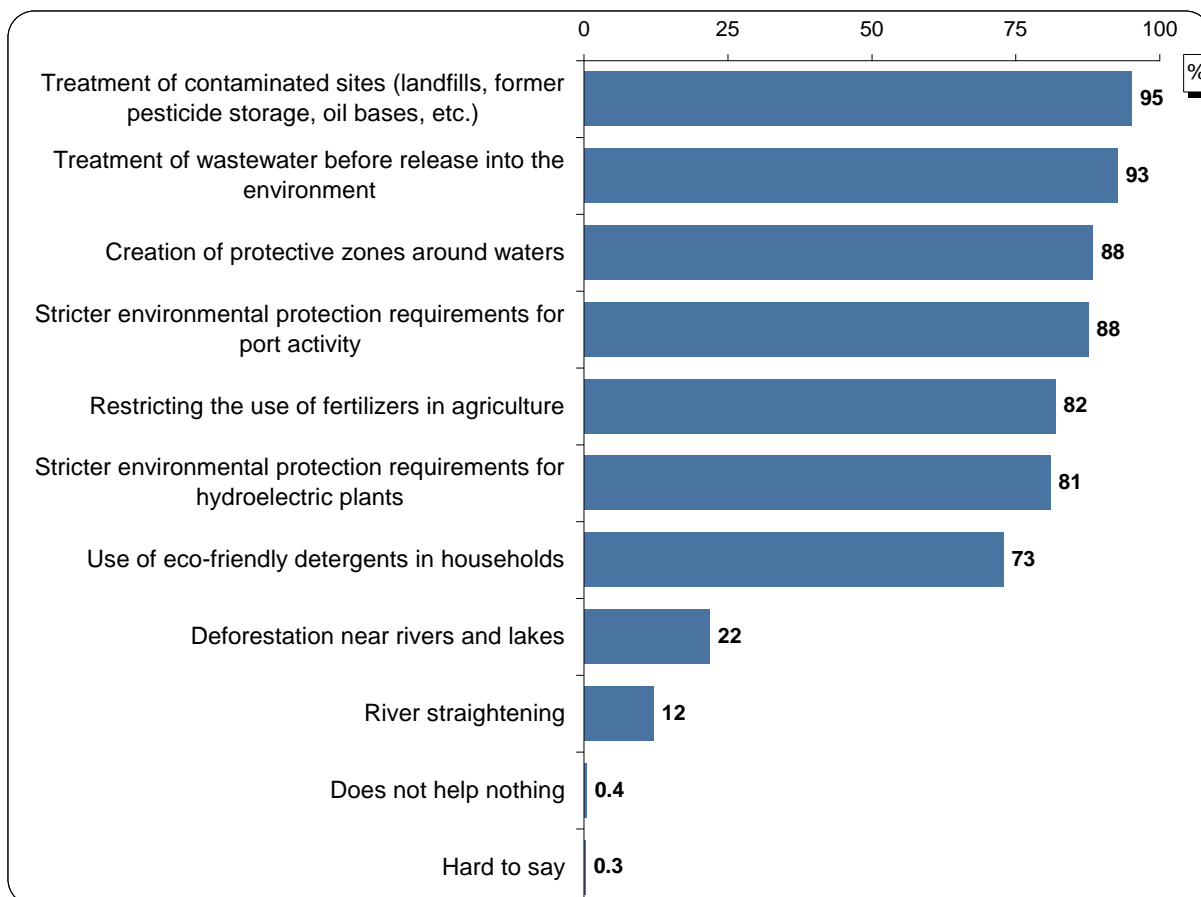


Base: total respondents in Latvia, n=505

Grouping the answers by category, it can be seen that respondents have most frequently named factors connected to human activity (19% of all answers). The next category of factors by frequency of mentioning is 'chemical, mechanical, industrial factors' (16% of all answers). An insignificant number of answers are divided between the 'natural factors and 'ambiguous statements' categories. Two thirds (65%) of all respondents have not been able to or have not wished to name any additional factors with a negative impact on water quality besides those evaluated earlier.

### 1.7. Measures to protect and improve the condition of waters

*Question formulation: What measures do you think help to protect and improve the condition of river, lake, coastal and underground waters?*

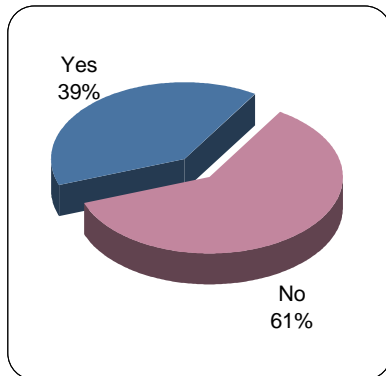


Base: total respondents in Latvia, n=505

Measures that in fact do not help to protect and improve the condition of river, lake, coastal and underground waters have been mentioned by only a small proportion of respondents: 'deforestation near rivers and lakes' (22%) and 'river straightening'(12%). Measures that help to protect and improve the condition of river, lake, coastal and underground waters have been mentioned by over two thirds of respondents (73%).

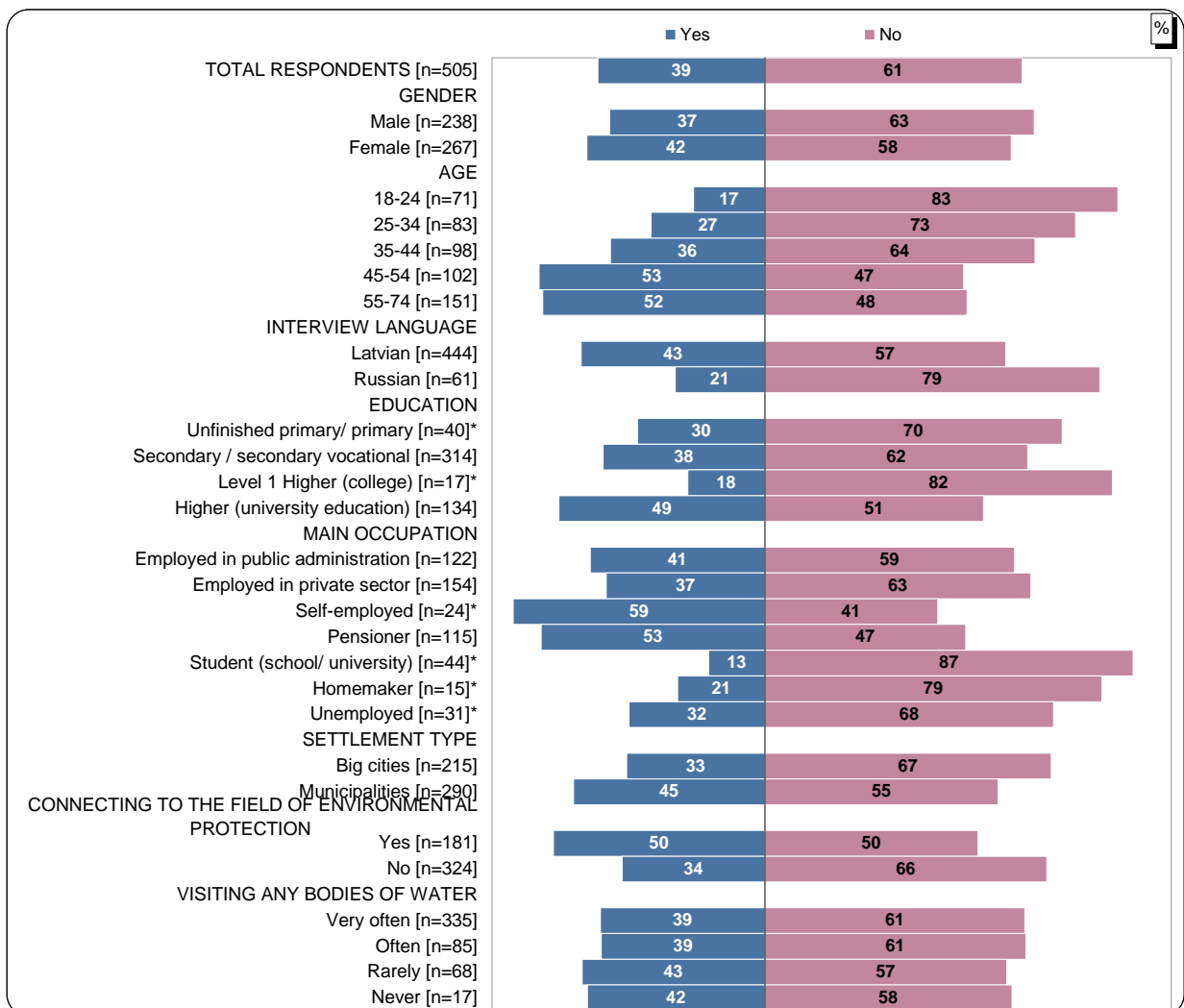
### 1.8. Population awareness of plans for the management of specially protected nature territories

*Question formulation: Have you heard of plans for the management of specially protected nature territories?*



More than a third of those surveyed have heard of plans for the management of specially protected nature territories. Awareness of management plans increases as respondent age increases. It is noteworthy that Latvians are significantly more informed on plans for the management of specially protected nature territories than Russian speakers (43% and 21% respectively).

Base: total respondents in Latvia, n=505

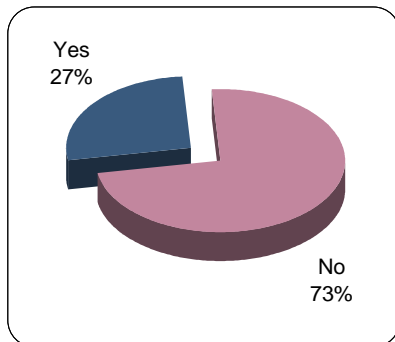


Base: respondents in the respective group [see "n=" in graph]

\*Base of the respective groups is too small to draw any conclusions about this group

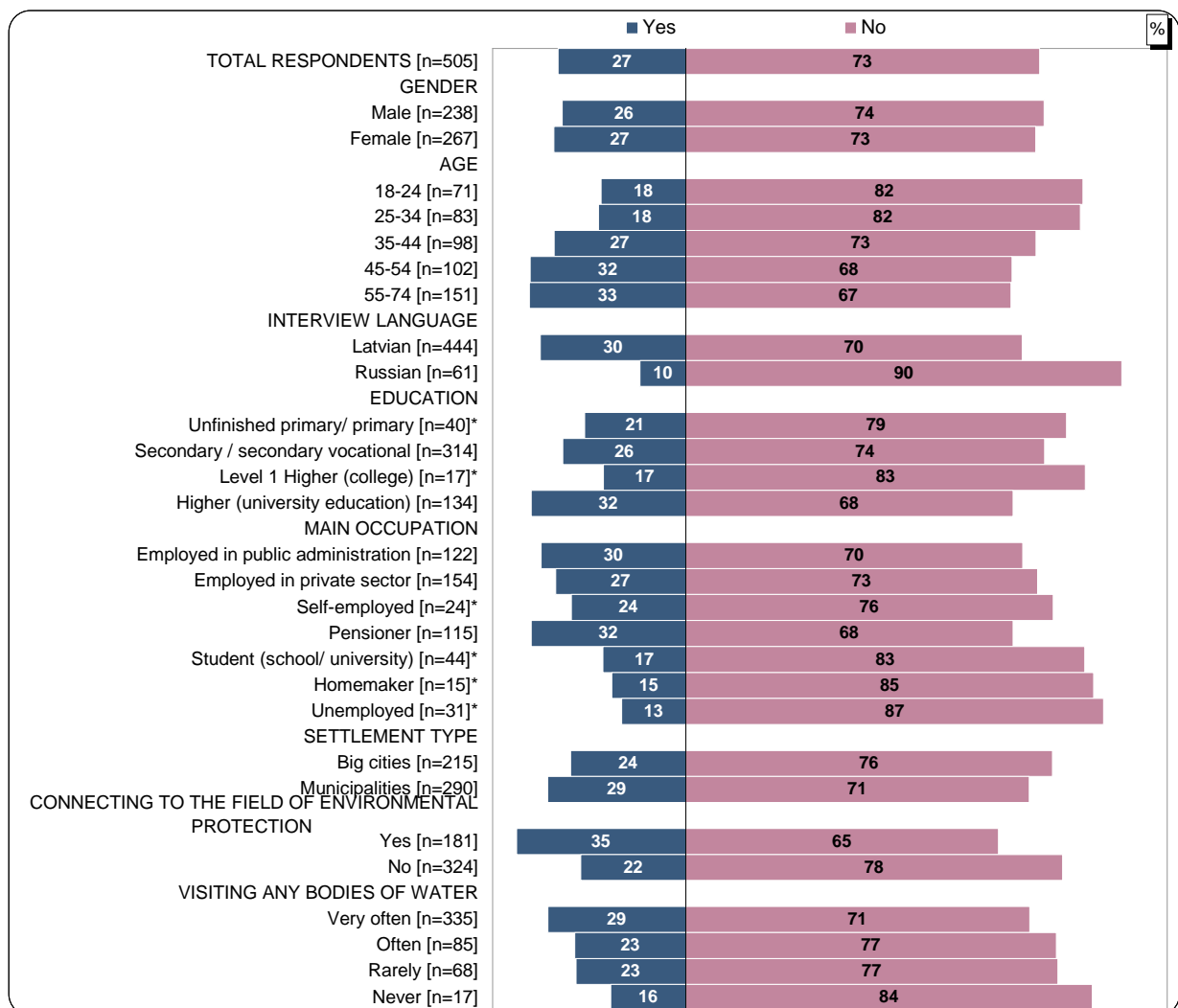
### 1.9. Population awareness of plans for the management of river basin areas

*Question formulation: Have you heard of plans for the management of river basin areas?*



About a quarter of respondents have heard of plans for the management of river basin areas. Significant differences can be observed between Latvians and Russian speakers – the awareness level of Latvians is significantly higher on this issue. There are also minor differences between age groups – a tendency of awareness increasing as respondent age increases can be observed.

Base: total respondents in Latvia, n=505



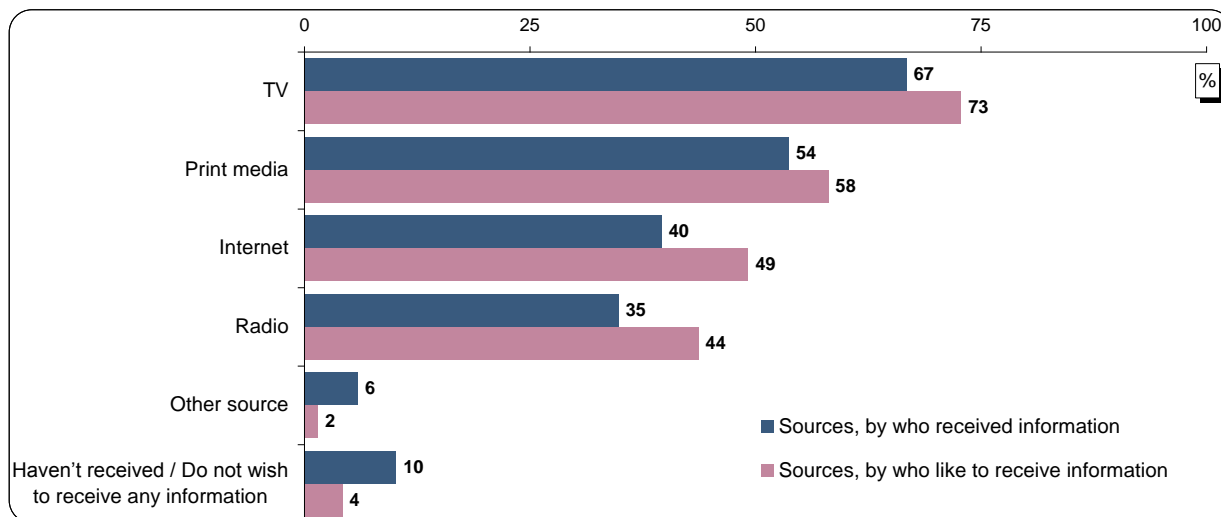
Base: respondents in the respective group [see "n=" in graph]

\*Base of the respective groups is too small to draw any conclusions about this group

### 1.10. Sources of information with regard to water management issues

*Question formulation: Up to now, what sources have you obtained information from on river, lake, coastal and underground water management issues??*

*How would you like to receive current information on issues of river, lake, coastal and underground water management?*



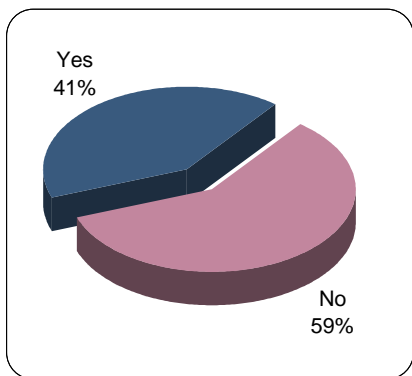
Base: total respondents in Latvia, n=505

The largest proportion of those surveyed have received information on issues of river, lake, coastal and underground water management from the television and print media, to a lesser extent – from the internet and radio. A tenth of respondents have admitted that they have not received this kind of information or are not interested in water management issues. Among older respondents the most common channels for receiving information are TV, radio and print media, while among younger people the internet is more common. Overall, 6% of respondents have mentioned additional information channels – from other people, as a result of their own observations; as well as at work, at institutions of education, seminars and local authorities.

Comparing the results of where respondents obtain information and where they would like to obtain it in the future, it is evident that respondents would like to receive additional information from the same mass media they already use.

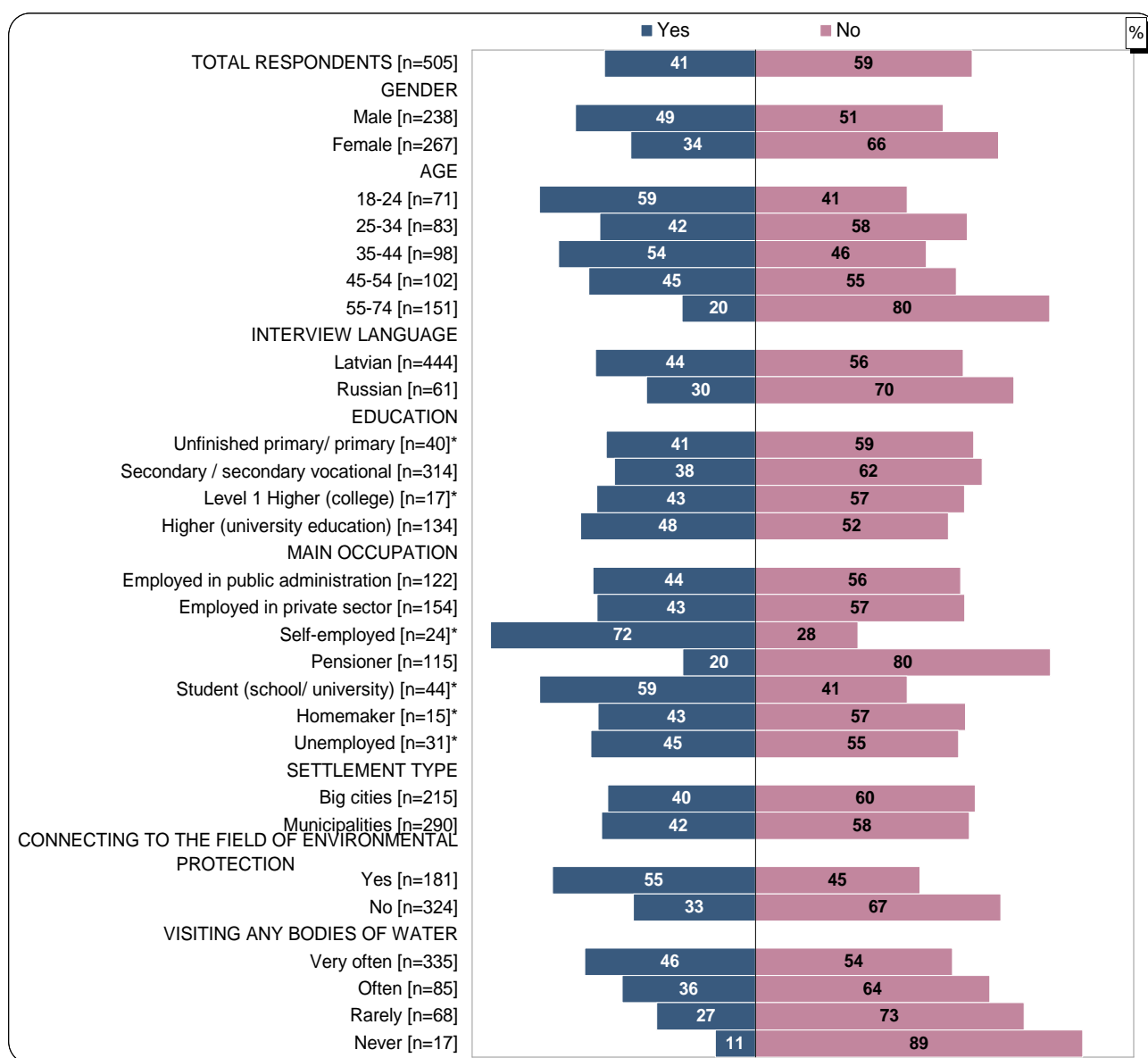
### 1.11. Population involvement in the management of natural bodies of water

Question formulation: *Would you like to get involved in the management of a river, lake, or coastal area?*



Almost half of those surveyed have expressed their desire to get involved in the management of a river, lake or coastal area. A greater interest was expressed by men, people in the age groups of 18-24 and 35-44, as well as those Venta River area residents with links to environmental issues. The data does not indicate statistically significant differences according to respondent education, occupation and place of residence (large towns or districts).

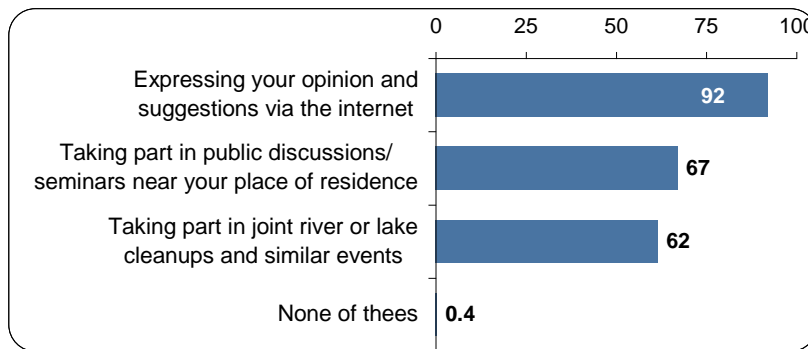
Base: total respondents in Latvia, n=505



Base: respondents in the respective group [see "n=" in graph]

\*Base of the respective groups is too small to draw any conclusions about this group

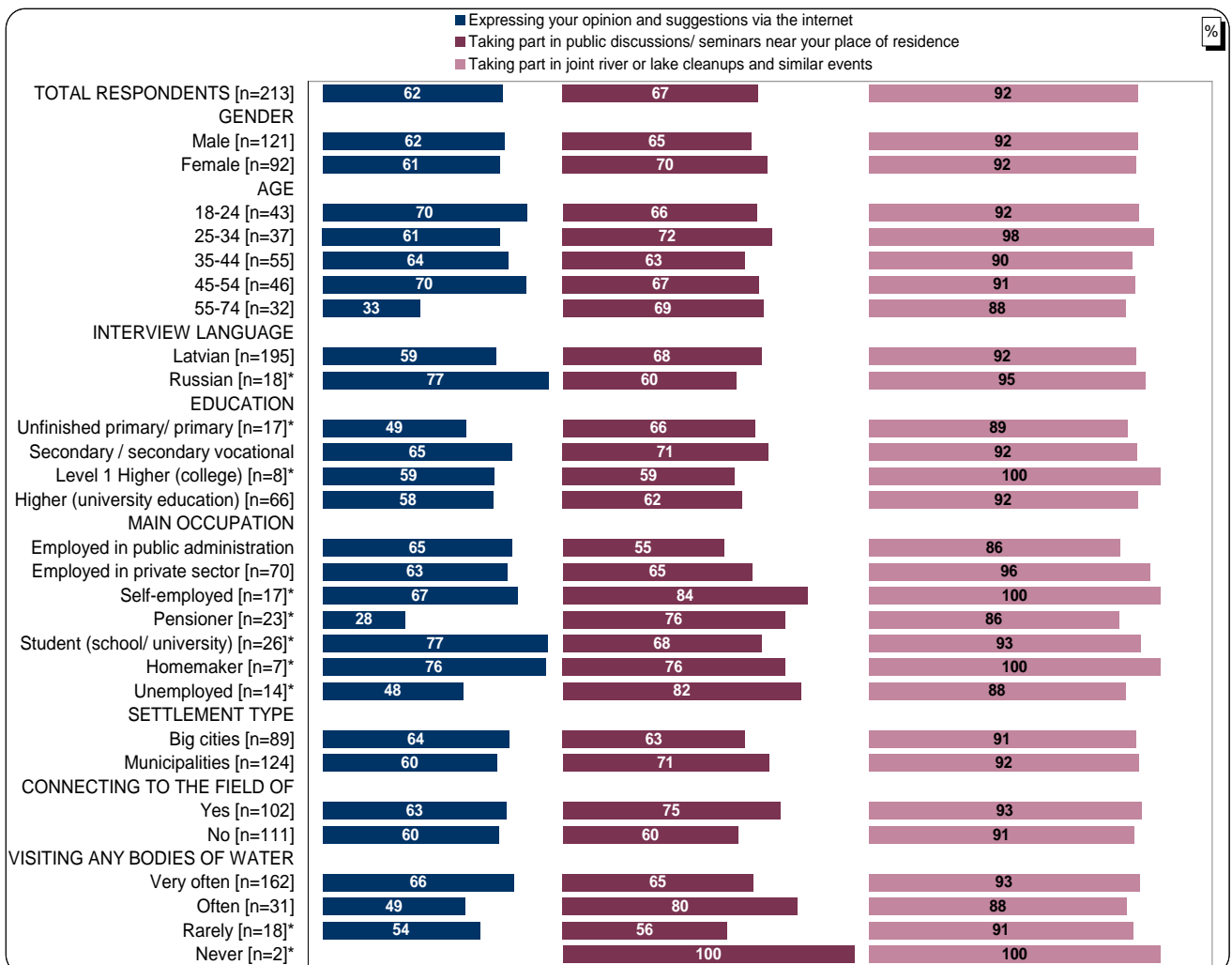
Question formulation: Which of these activity options would you be interested in?



Almost all the respondents who would like to get involved in coastal/ shore management activities are willing to offer a practical contribution – take part in river or lake cleanups and similar events (this constitutes over a third of respondents overall). A greater

Base: respondents, who like to get involved in the management of a river, lake, or coastal area, n=213

willingness to take part in public discussions/ seminars near their place of residence has been expressed by self-employed persons, people who visit bodies of water more often on average, and the respondents whose work, studies, or leisure activities are connected to the field of environmental protection. Expressing their opinion via the internet, on the other hand, is of greater interest to Russian speakers, students and homemakers.



Base: respondents in the respective group [see "n=" in graph]

\*Base of the respective groups is too small to draw any conclusions about this group

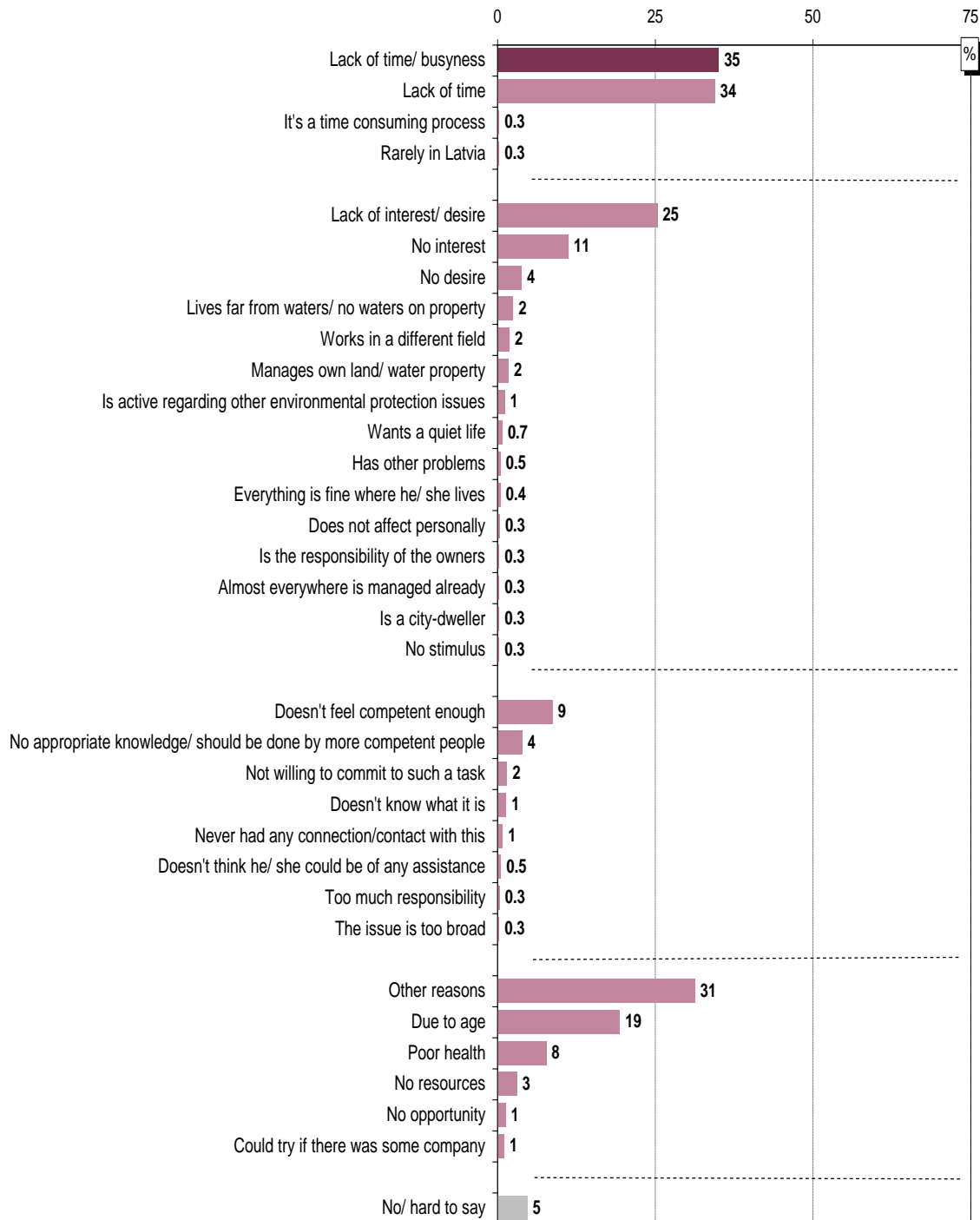


**Research / project:** Venta River Area Residents' Awareness About Water Management Issues

The respondents who did not wish to participate in the management of a river, lake or coastal shore area were asked about their reasons.

The most frequently given answers were a lack of time and interest.

Question formulation: *Can you please explain why not?*



Base: respondents in Latvia, who not like to get involved in the management of a river, lake, or coastal area, n=292

## SURVEY TECHNICAL INFORMATION

Survey	Venta River Area Residents' Awareness About Water Management Issues
The survey is conducted by	Research centre SKDS
Target group	Permanent residents of the Kurzeme planning region aged 18 to 74 years
Planned sample size	500 respondents
Achieved sample size	505 respondents
Sampling method	Stratified random sampling
Survey method	CATI (telephone interviews)
The place of conducting of telephone interviews	Riga, Baznicas iela 32, SKDS
Geographical coverage	Kurzemes plānošanas reģions
Time of survey	26.04.2011. – 11.05.2011. (darba dienās no plkst.17.00 -21.00 un brīvdienās no plkst.11.00 -21.00)

Number of interviewers	17
Contacts with potential respondent	3081
Completed interviews	505
Average length of interviews	13 min. 39 sek.
The longest interview	40 min. 20 sek.
The shortest interview	3 min. 34 sek.
Total number of non-response	3667

### Comparison of achieved sample with statistics of population

	Portion of respondents before data weighting (%)	Portion of respondents after data weighting (%)	Statistical data
<b>TOTAL</b>	100.0	100.0	100.0
<b>GENDER</b>			
Male	47.1	47.8	47.8
Female	52.9	52.2	52.2
<b>NATIONALITY</b>			
Latvian	81.2	72.2	72.2
Other	18.8	27.8	27.8
<b>AGE</b>			
18 - 24	14.1	15.5	15.5
25 - 34	16.4	18.7	18.7
35 - 44	19.4	18.1	18.1
45 - 54	20.2	19.1	19.1
55 - 74	29.9	28.6	28.6
<b>EDUCATION</b>			
Primary	7.9	7.7	
Secondary, secondary vocational	62.2	62.5	
Higher	29.9	29.9	

**Research / project:** Venta River Area Residents' Awareness About Water Management Issues

<b>REGION</b>	<b>Planned sample size (count)</b>	<b>Achieved sample size (count)</b>
Liepaja	140	140
Ventspils	73	75
Aizputes district	17	17
Alsungas district	3	5
Brocenu district	12	12
Dundagas district	7	7
Durbes district	6	6
Grobinas district	17	17
Kuldigas district	45	45
Mersraga district *	11	2
Nicas district	7	7
Pavilostas district	5	5
Priekules district	11	11
Rojas district *	9	9
Rucavas district	3	3
Saldus district	48	49
Skrundas district	10	10
Talsu district	57	57
Vainodes district	5	5
Ventspils district	23	23
	<b>500</b>	<b>505</b>

\* Rojas district and Mersraga district are combined. 11 in total

**REASONS FOR NON – RESPONDENCE**

	<b>Count</b>	<b>%</b>
<b>CAN NOT BE REACHED DURING INTERVIEW PERIOD (AFTER 5 CALL BACKS) FAX OR AUTO REPLAY NO ADDRESSEE IS CLOSED BAD COVERAGE CAN NOT BE CONNECTED TOTAL</b>	546 4 421 98 5 17 1091	50.0 0.4 38.6 8.9 0.5 1.56 100.0
<b>RESPONDENT IS NOT REACHABLE</b>		
Does not want to participate in the survey	622	24.1
Do not have a time	167	6.5
Tired/ ill	16	0.6
Does not correspond the target group	1757	68.2
Stopped interviews	14	0.6
<b>TOTAL</b>	<b>2576</b>	<b>100.0</b>

Responsible for the field work	Agnete Ignate
Data processing specialist	Saiva Brezinska

**PROJECT GROUP**

Project director	Diana Kalnina
Project manager	Margita Otto
Assistants of project manager	Andrejs Solopenko, Svetlana Grigorjeva

**LATVIA**

# LITHUANIA

## SOCIO-DEMOGRAPHIC PROFILE OF RESPONDENTS

		TOTAL RESPONDENTS	
		Col %	N
TOTAL		100.0	501
.			
GENDER	Male	47.1	234
	Female	52.9	267
.			
AGE	18-24	16.1	52
	25-34	18.7	107
	35-44	19.4	122
	45-54	20.4	87
	55-74	25.5	133
.			
EDUCATION	Unfinished primary/ primary	10.2	48
	Secondary / s econdary vocational	52.9	268
	Level 1 Higher (college)	11.1	55
	Higher (university education)	25.7	130
.			
MAIN OCCUPATION	Employed in public administration	21.6	113
	Employed in private sector	23.9	132
	Self-employed	7.8	41
	Pensioner	17.7	93
	Student (school/ university)	13.7	48
	Homemaker	4.0	18
	Unemployed	11.0	54
	Refuses to answer	.2	2
.			
REGION	Klaipeda county	69.1	348
	Telsiai county	30.9	153
.			
SETTLEMENT TYPE	Rural	32.8	165
	Urban	67.2	336
.			
CONNECTING TO THE FIELD OF ENVIRONMENTAL PROTECTION	Yes	38.9	191
	No	61.1	310

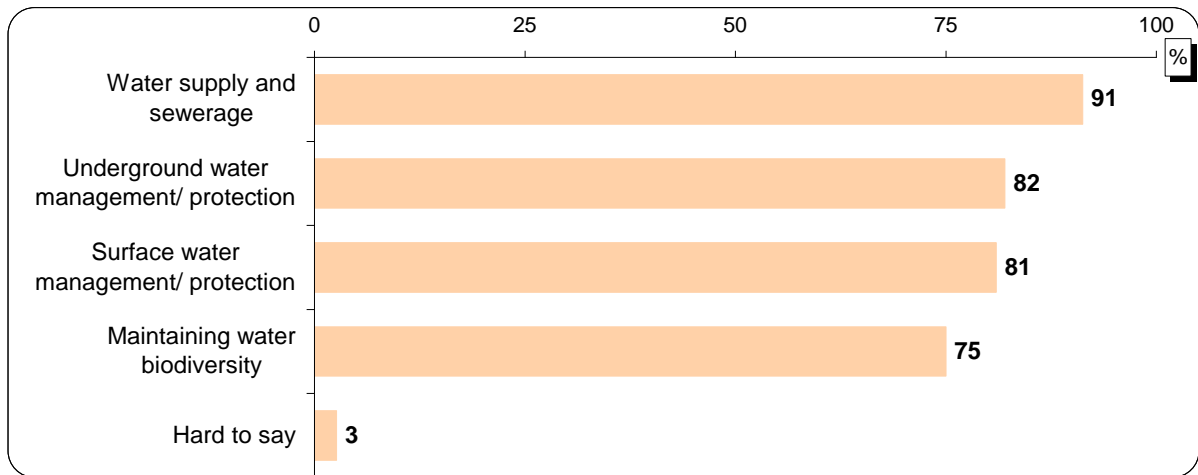
*Base: total respondents in Lithuania  
% - weighted, N - unweighted count*

**RESULTS**

**2.1. Understanding of the term “water resources management”**

*Question formulation: In your opinion, what is included in the term “water resources management”?*

Overall, 60% of respondents know that the term "water resources management" includes all four possible answers. Looking at each response option separately, it can be seen that the frequency of mentioning is high for all of them. The most frequently mentioned response is 'water supply and sewerage', mentioned by almost all the respondents.

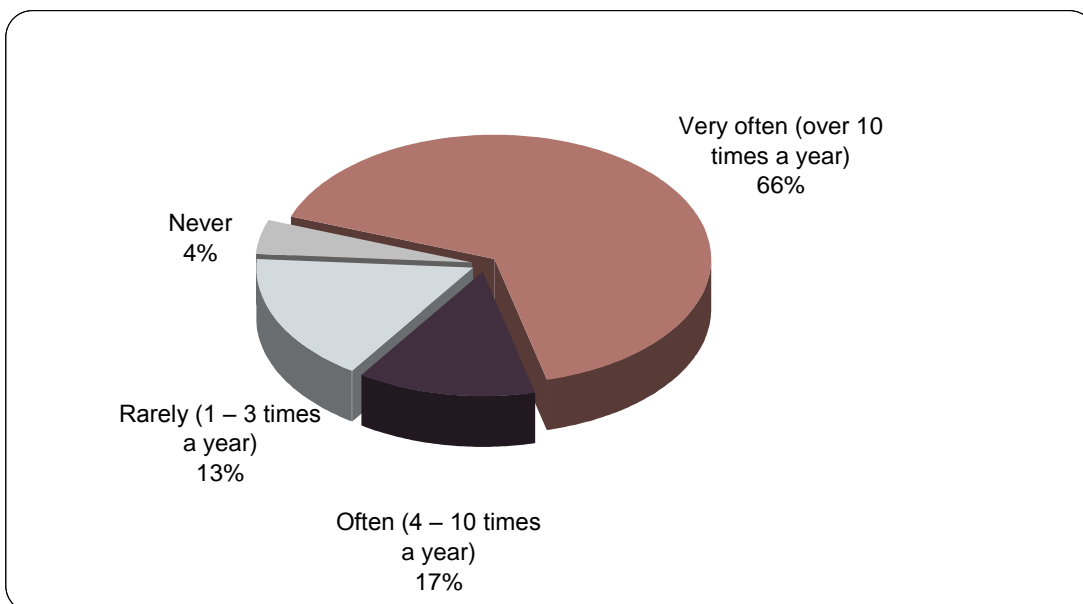


Base: total respondents in Lithuania, n=501

**2.2. Frequency of visits to bodies of water**

*Question formulation: On average, how many times a year during the last 5 years have you visited any bodies of water, for example, to swim, fish, take a boat ride or just relax? A body of water can be a river, lake or beach located in Latvia/ Lithuania?*

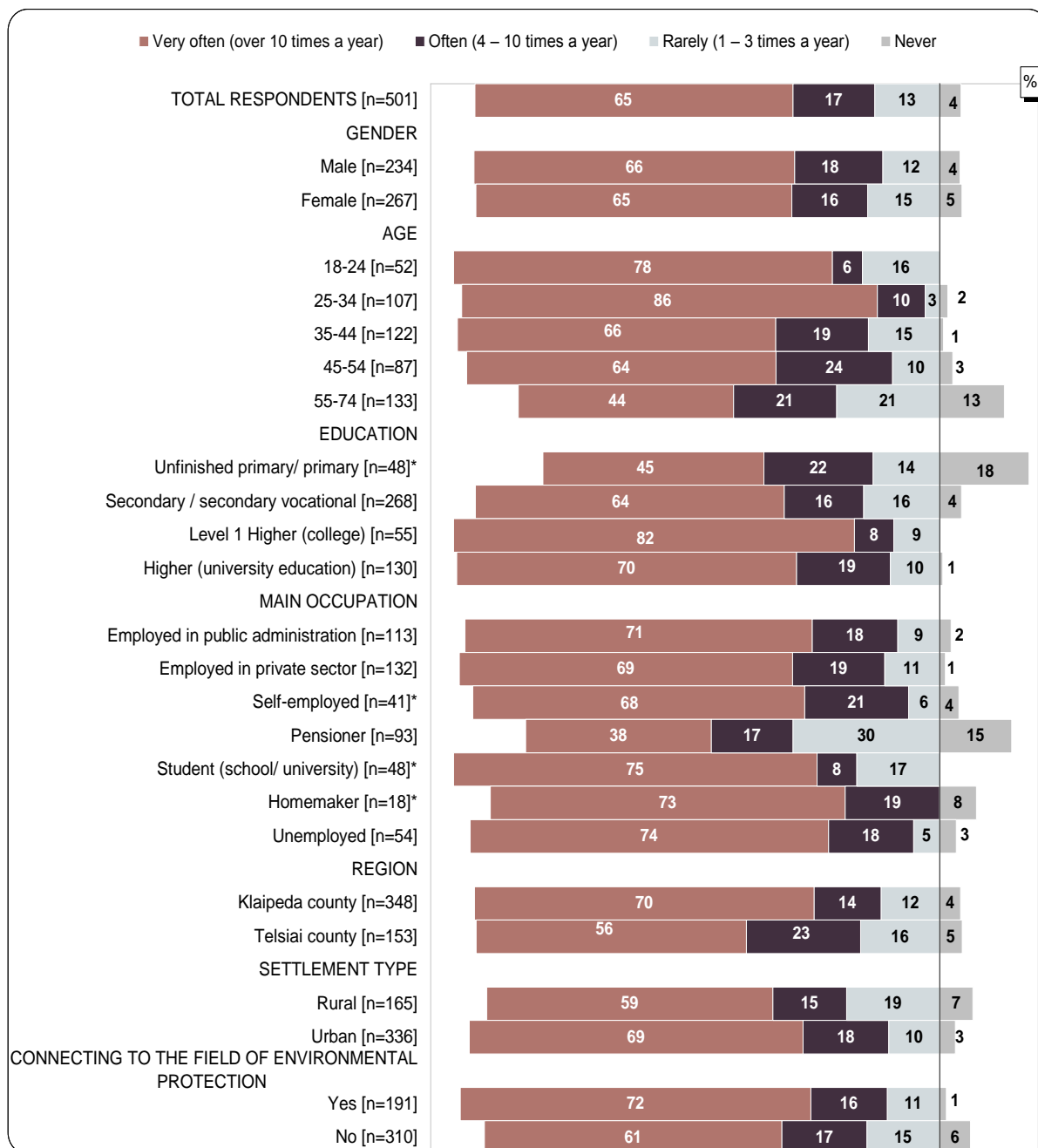
Of all the respondents, 66% visit bodies of water more than 10 times a year. 4% of the respondents have never visited bodies of water in the last five years.



Base: total respondents in Lithuania, n=501

**Research / project:** Venta River Area Residents' Awareness About Water Management Issues

Quite significant differences in the frequency of visiting bodies of water are evident among various age groups. The most frequent visitors of bodies of water are respondents representing the 25-34 year age group. Older respondents and pensioners visit bodies of water comparatively less frequently. Klaipeda county residents tend to visit waters more frequently than Telsiai county dwellers.

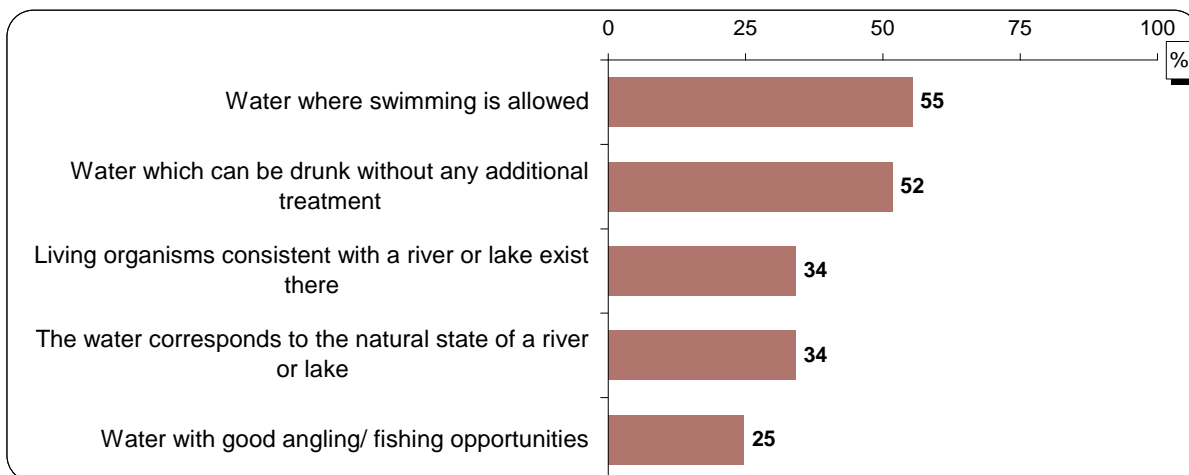


Base: respondents in the respective group [see "n=" in graph]

\*Base of the respective groups is too small to draw any conclusions about this group

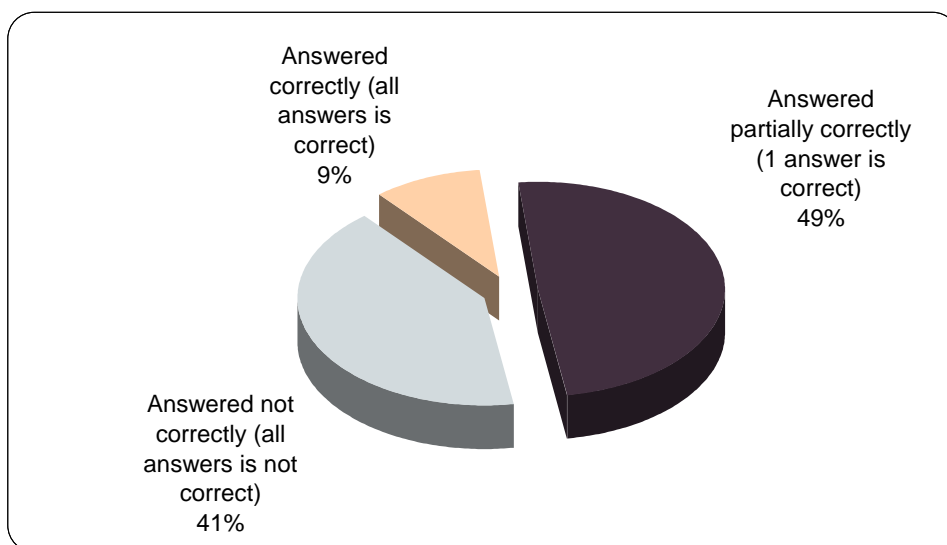
### 2.3. Understanding of good quality of water in a river or lake

*Question formulation: Now I'm going to read out five statements. Please tell me which two of these would best describe good quality of water in a river or lake, in your opinion?*



Base: total respondents in Lithuania, n=501

Data shows that 9% of the respondents have indicated both correct response options ('living organisms consistent with a river or lake exist there' and 'the water corresponds to the natural state of a river or lake'), 49% of the respondents have indicated one of the two correct response options ('living organisms consistent with a river or lake exist there' or 'the water corresponds to the natural state of a river or lake'), but 41% of the respondents have not indicated any of the correct response options.



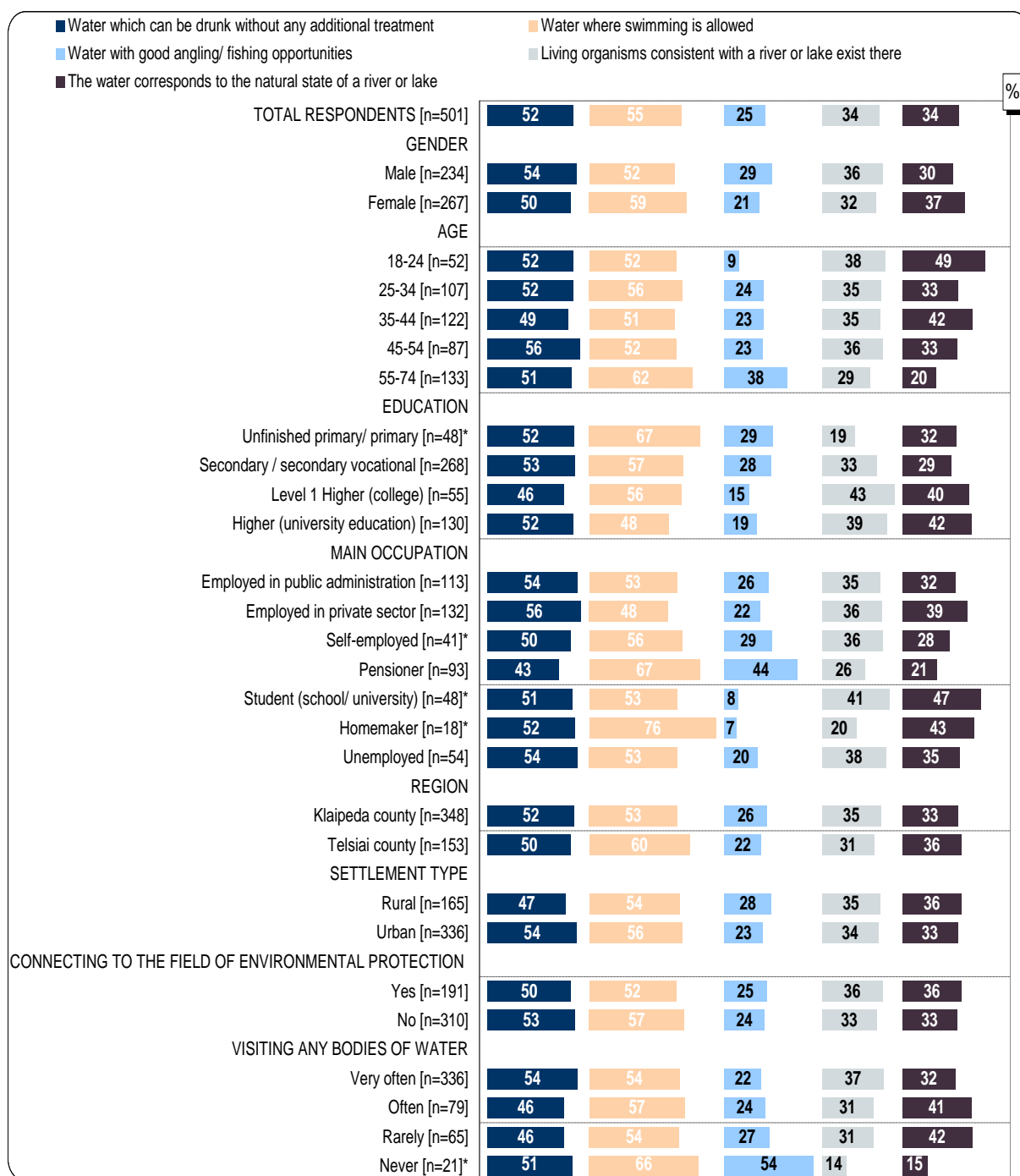
Base: total respondents in Lithuania, n=501



**Research / project:** Venta River Area Residents' Awareness About Water Management Issues

There is a higher proportion of correct answers among respondent groups with a higher level of education, as well as among students.

Overall, the most frequently mentioned answer option 'swimming is allowed there' has been given more often than average by respondents with a lower level of education, homemakers and pensioners. The response 'there are good fishing/ angling opportunities' has also been mentioned more frequently than average by older people as well as those who have not visited bodies of water in the past years.

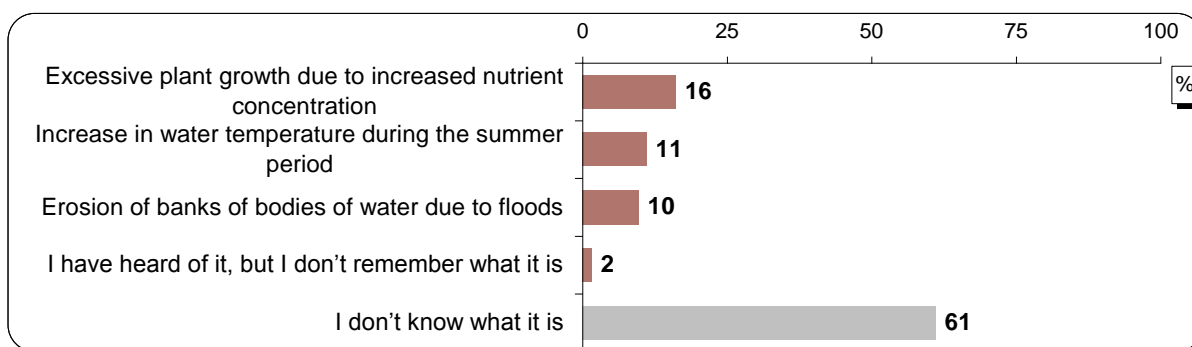


Base: respondents in the respective group [see "n=" in graph]

\*Base of the respective groups is too small to draw any conclusions about this group

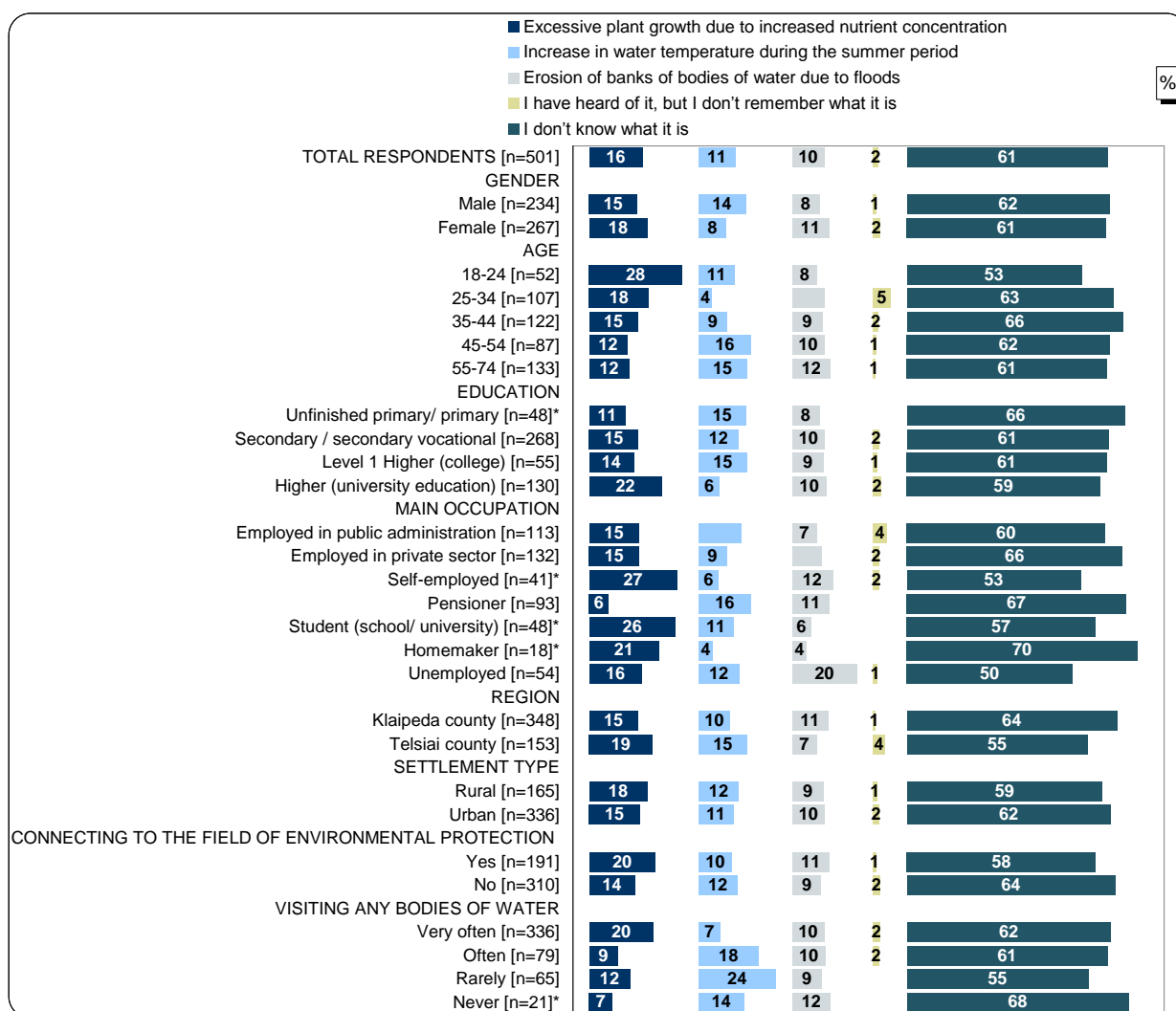
## 2.4. Understanding of the term „eutrophication of water”

*Question formulation: What, in your opinion, is the eutrophication of water?*



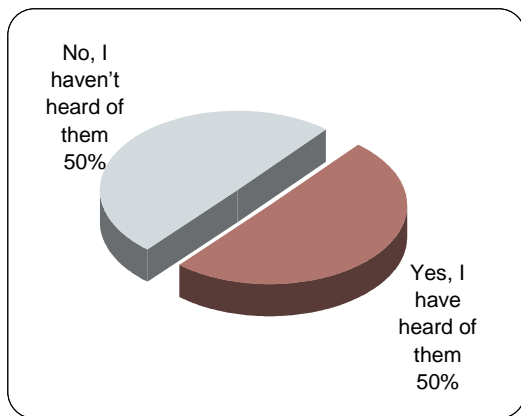
Base: total respondents in Lithuania, n=501

The correct answer, that that eutrophication of waters is excessive plant growth due to increased concentrations of nutrients has been given by about 16% of respondents. The other options offered in the questionnaire have been mentioned by similar proportions of respondents. The data indicates that younger respondents (18 – 24 years old) are more informed, and with increasing age, the proportion of those who know this term decreases. A tendency of higher awareness among respondents with a higher education can be observed.



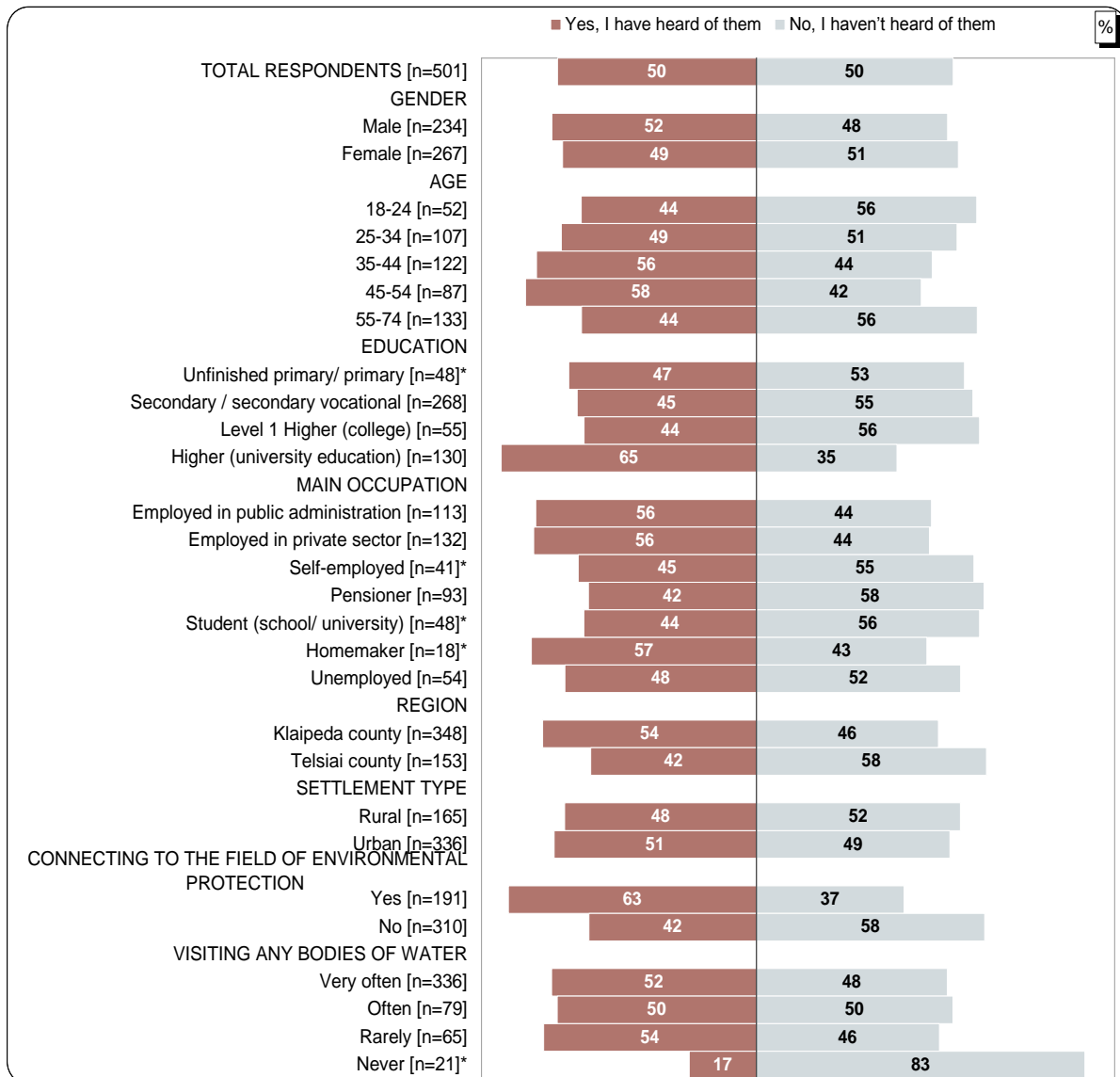
Base: respondents in the respective group [see "n=" in graph]

Question formulation: Have you heard of water eutrophication problems existing in Lithuania?



Base: total respondents in Lithuania, n=501

After the description is read out: “the eutrophication of water is excessive plant growth due to increased nutrient (nitrogen and phosphorus) concentration”, half of the respondents state that they have heard of these problems. Respondents with a higher education and those with links to the field of environmental protection have heard of eutrophication of waters more often. Awareness increases as respondent age increases, with the exception of the 55 – 74 age group, where a drop in the proportion of positive answers to the level of youth in the 18 – 24 age group can be observed.

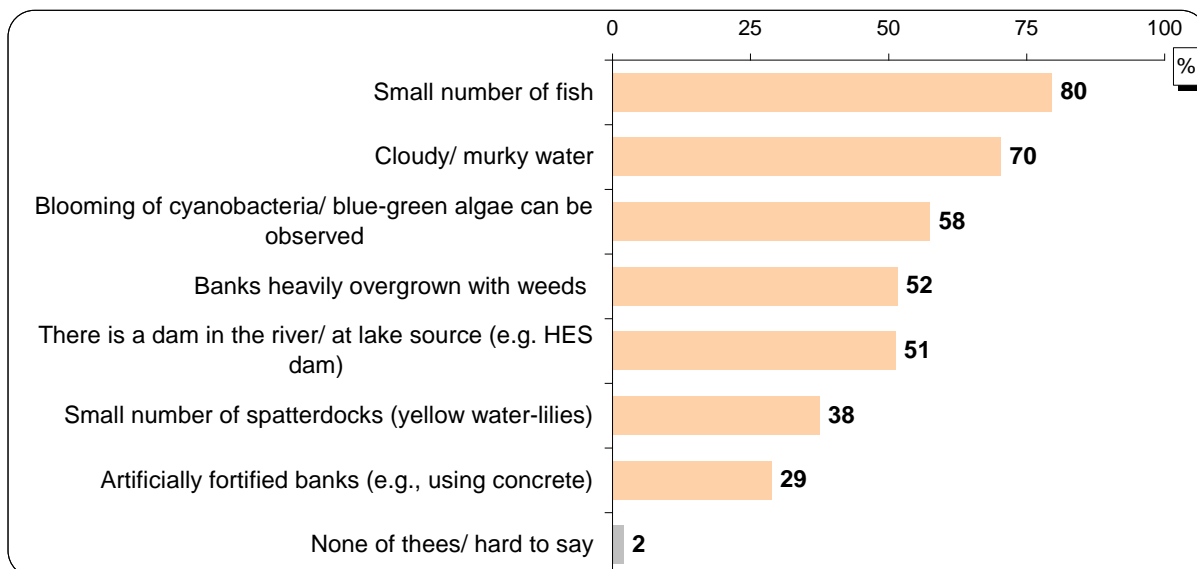


Base: respondents in the respective group [see "n=" in graph]

\*Base of the respective groups is too small to draw any conclusions about this group

## 2.5. Features indicating low quality of water

*Question formulation:* Which of the following features would indicate low quality of water in a river or lake?



Base: total respondents in Lithuania, n=501

The indicators most frequently mentioned by respondents are 'small number of fish' and 'cloudy/ murky water'. The least mentioned – 'artificially fortified banks'.

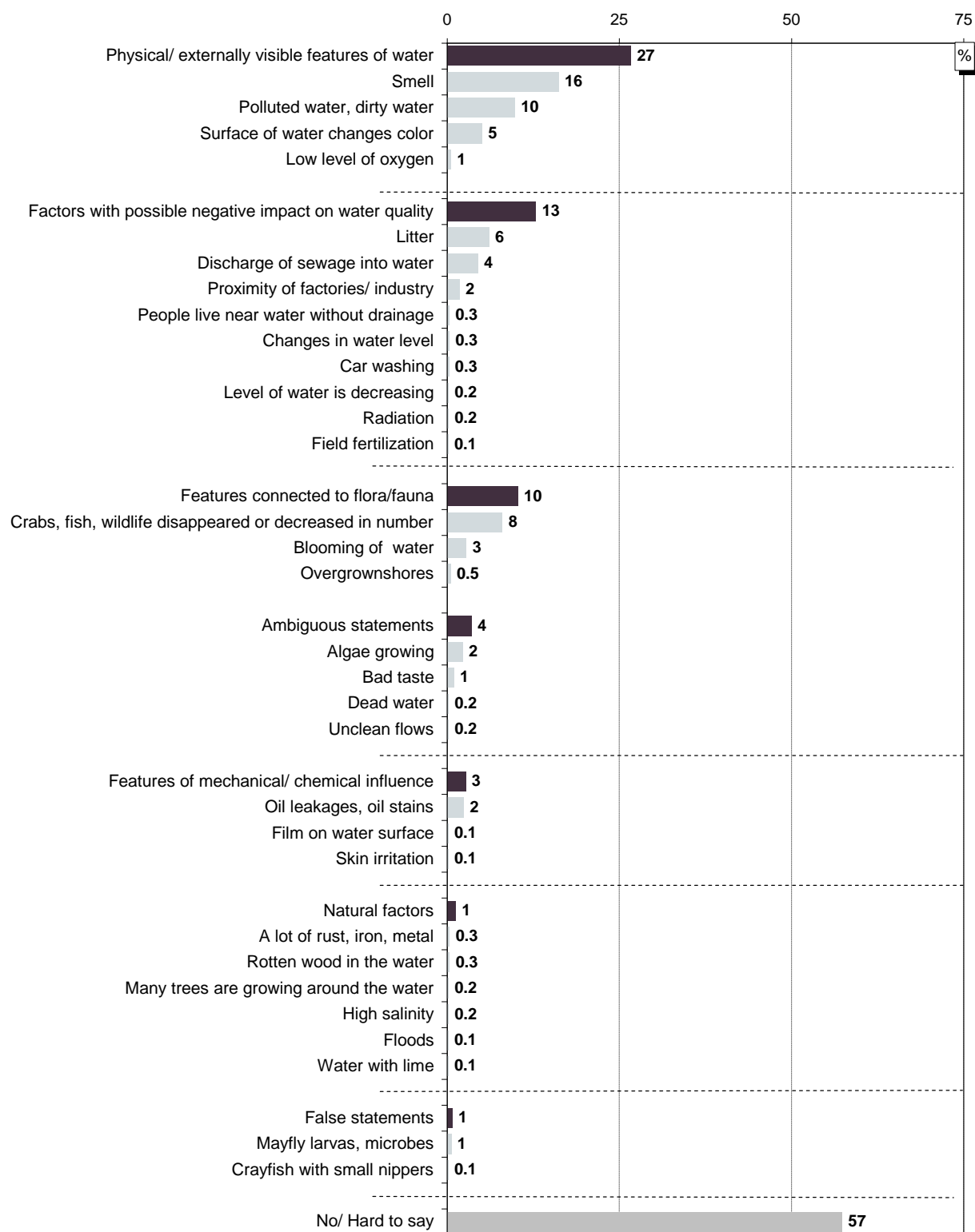
*Question formulation:* Could you name any other indicators of low water quality in a river or lake?

Please find the respective graph in the next page.

The most frequently given answers are connected to the physical, externally visible features of water (27% of all answers), e.g. smell. The next group by size (13% of all answers) is factors that could have a negative impact on water quality, for example, rubbish. This is followed by features connected to flora/ fauna (10.3% of all answers), for example, crabs, fish and wildlife disappearing or decreasing in number.

Indicators connected to mechanical or chemical impact are mentioned less frequently – they constitute 3% of all answers (e.g. oil product leakages, spots). An insignificant number of answers connected to natural phenomenon are mentioned (1%), e.g. a lot of rust, iron, metal. There are also few ambiguous statements (4%) – for example, water has an unpleasant taste; or incorrect ones (1%), for example, crabs with small claws.

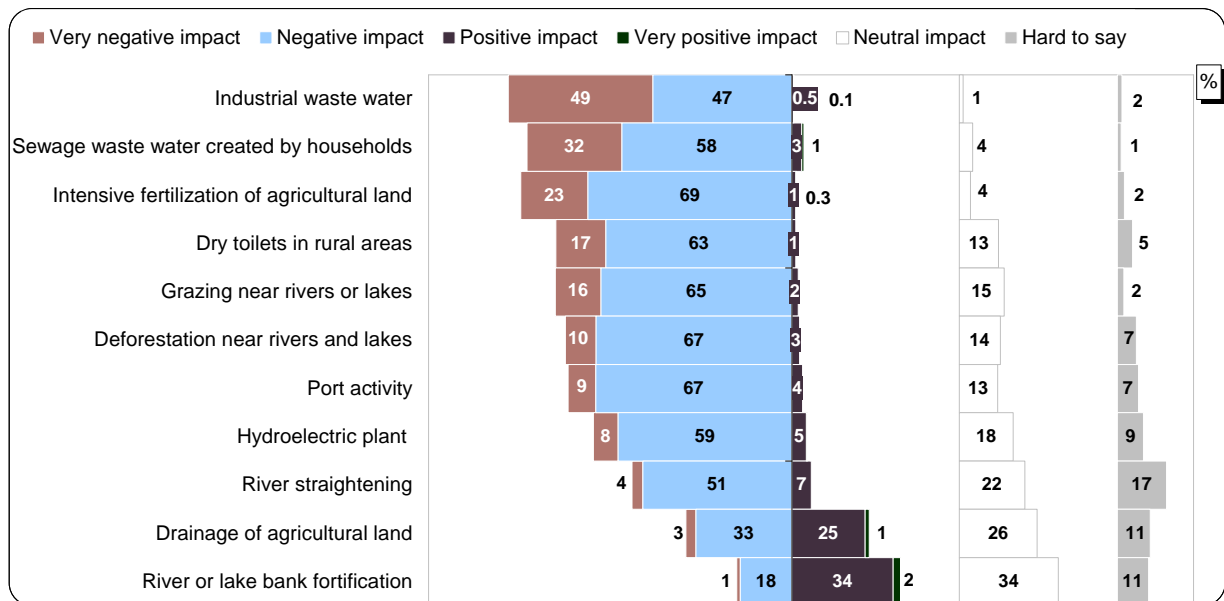
"Could you name any other indicators of low water quality in a river or lake?"



Base: total respondents in Lithuania, n=501

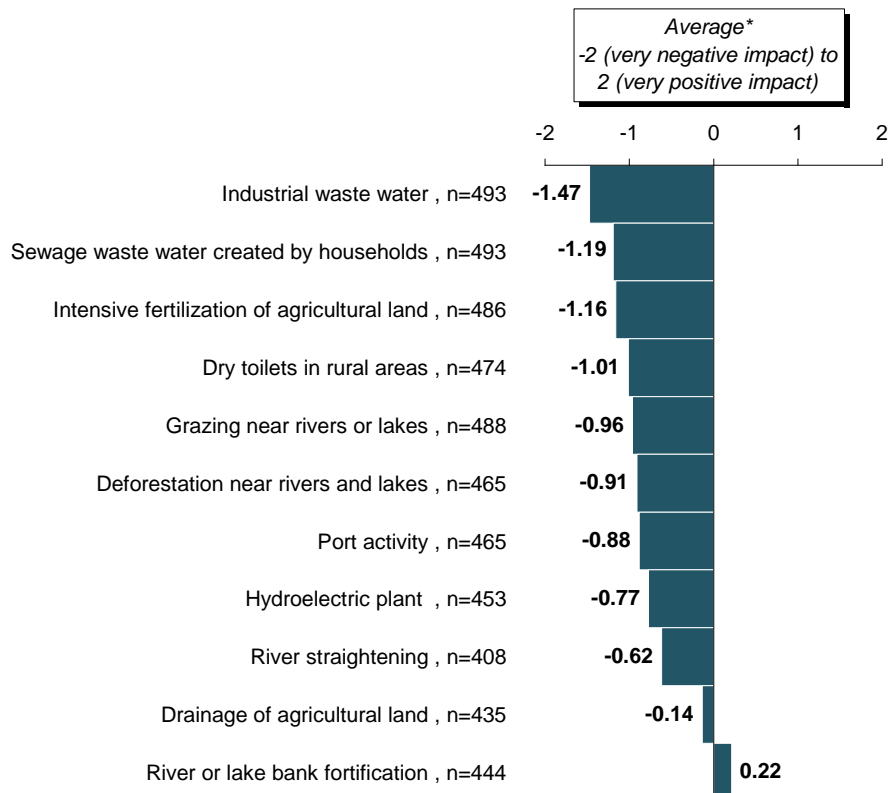
## 2.6. Evaluation of factors impacting the quality of waters

*Question formulation: What type of impact – a positive or negative one - do you think the following human activities have on the quality of river, lake, coastal or underground waters?*



Base: total respondents in Lithuania, n=501

The most negative evaluation has been given by respondents in Lithuania of the impact of industrial waste water (49% of those surveyed assessed it as 'very negative'). The impacts of household sewage waste water and intensive fertilization of agricultural land have also been assessed as especially negative. River and lake bank fortification, on the other hand, has been evaluated with a positive index overall.

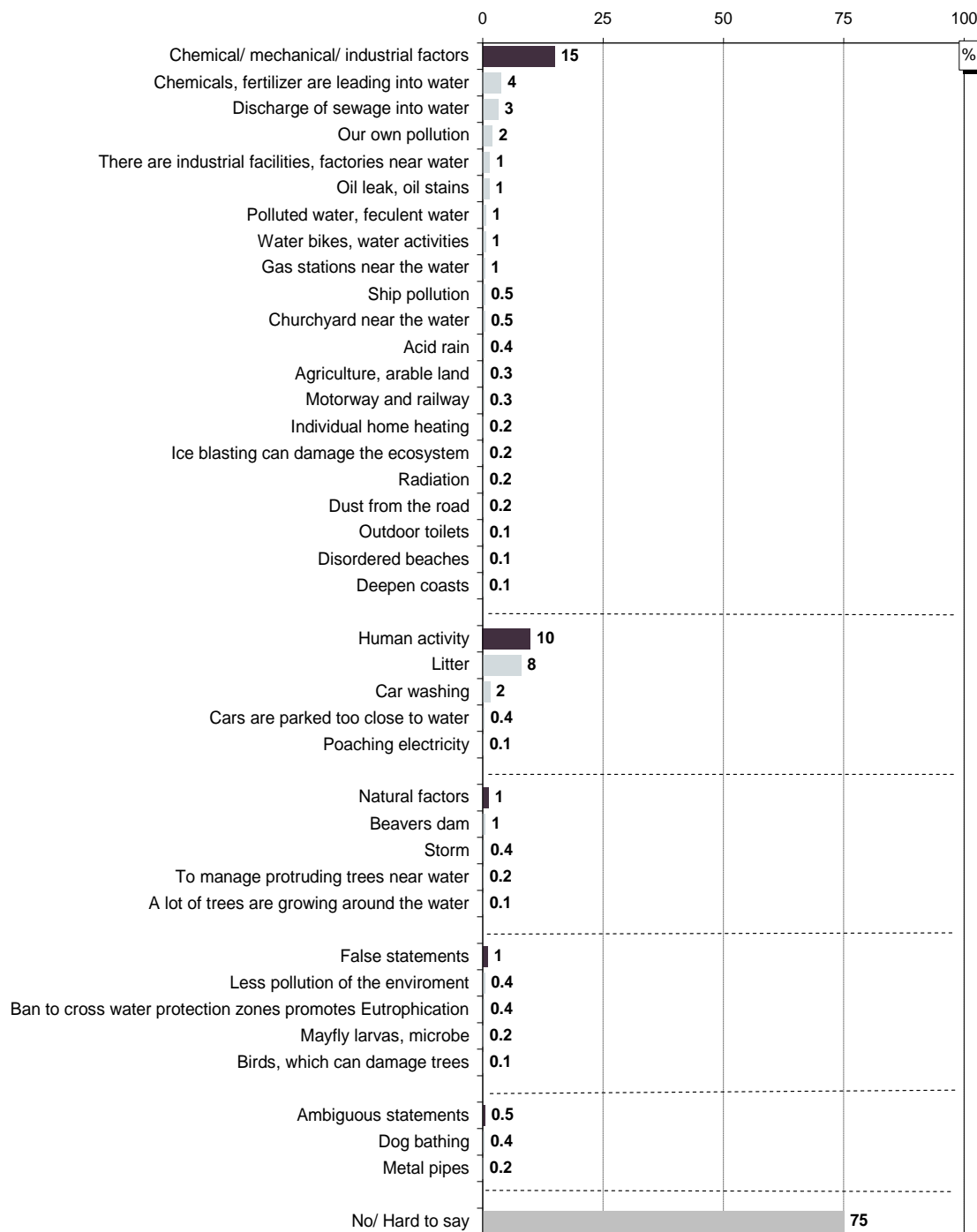


Base: respondents in Lithuania, who have given a specific evaluation, [see "n=" in graph]

**Research / project:** Venta River Area Residents' Awareness About Water Management Issues

Question formulation: *Could you name any other factors with a negative impact on the quality of river, lake, coastal or underground waters?*

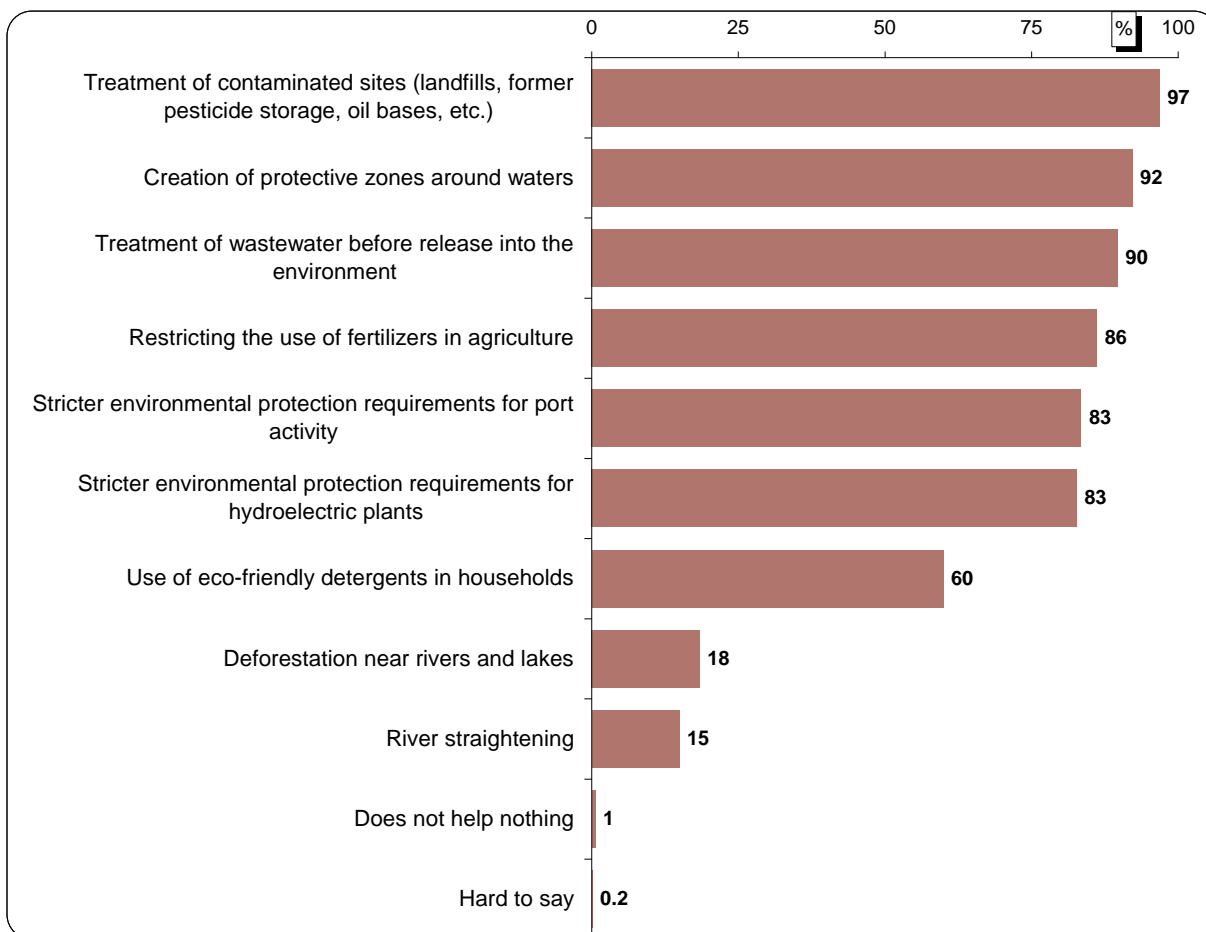
A very large proportion of respondents - three quarters of the total - had nothing further to add. Those who named additional factors most often mentioned so called 'chemical/ mechanical/ industrial factors' (15% of all answers) and 'human activity' (10%).



Base: total respondents in Lithuania, n=501

## 2.7. Measures to protect and improve the condition of waters

*Question formulation: What measures do you think help to protect and improve the condition of river, lake, coastal and underground waters?*



Base: total respondents in Lithuania, n=501

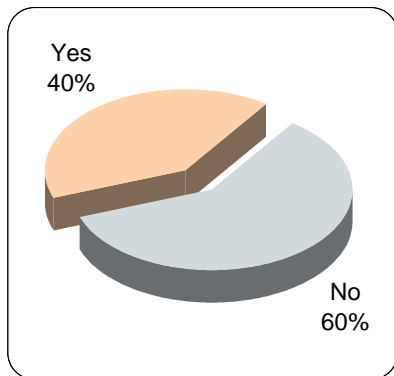
Almost all respondents in Lithuania have mentioned that the treatment of contaminated sites, the creation of protective zones around water and treatment of waste water before release into the environment would help to protect and improve the condition of river, lake, coastal and underground waters. More than 80% of those surveyed mentioned restriction of the use of fertilizers in agriculture, and stricter environmental protection requirements for ports and hydroelectric plants.

A smaller number of respondents (60%) have mentioned the use of eco-friendly detergents in households as an effective measure in improving water condition.

Similarly to Latvia, the two most rarely mentioned measures are those that do not help protect and improve the condition of river, lake, coastal and underground waters: 'deforestation near rivers and lakes'(18%) and 'river straightening'(15%).



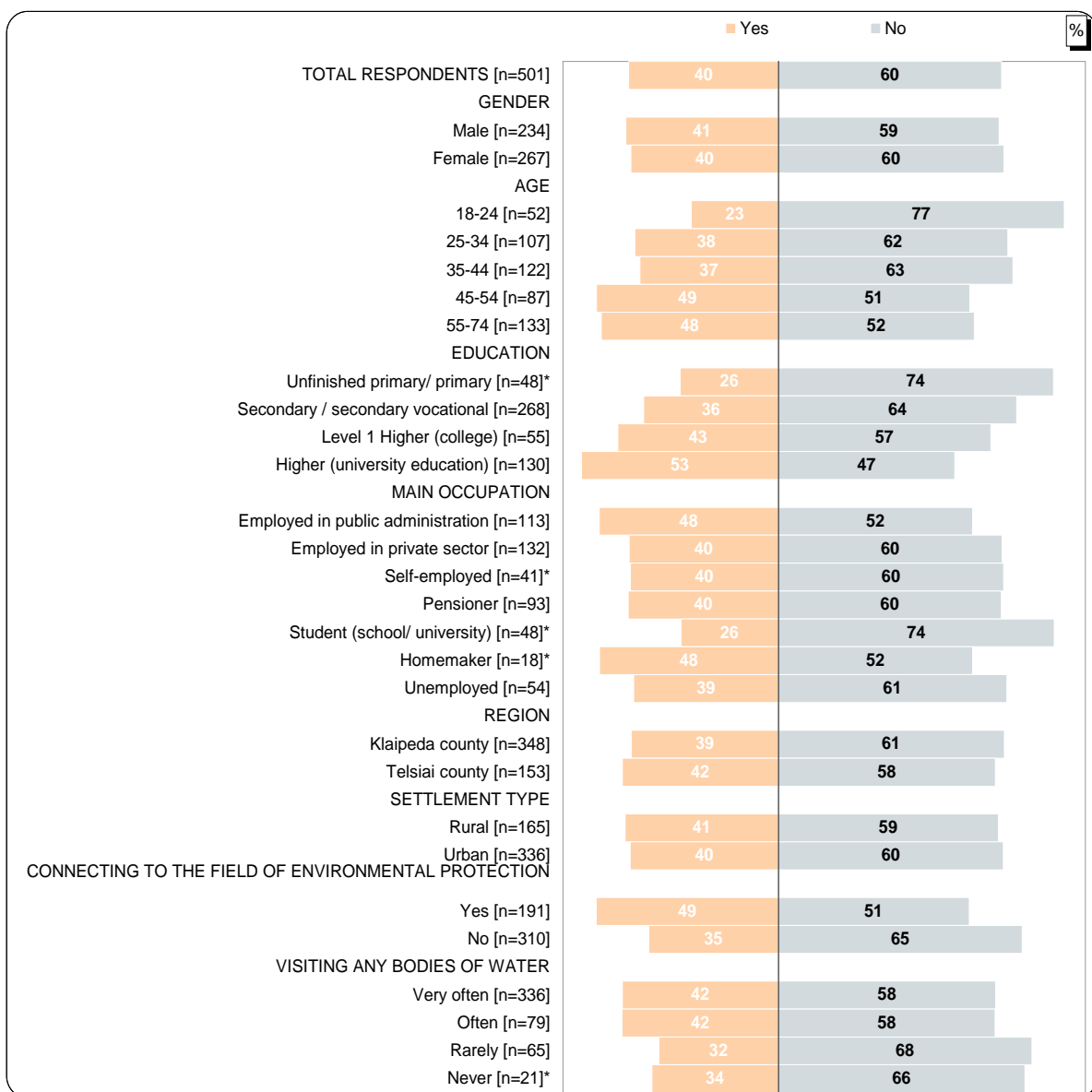
## 2.8. Population awareness of plans for the management of specially protected nature territories



*Question formulation: Have you heard of plans for the management of specially protected nature territories?*

40% of those surveyed have heard of plans for the management of specially protected nature territories. Older and better educated respondents are more informed of the plans. Understandably, respondents with links to the field of environmental protection are more often aware of plans for the management of specially protected nature territories.

Base: total respondents in Lithuania, n=501

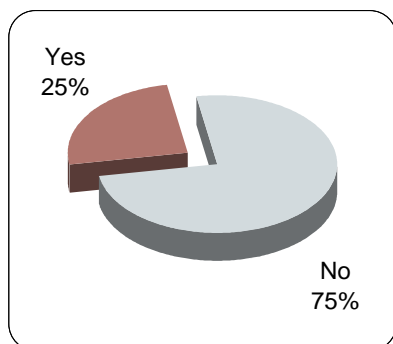


Base: respondents in the respective group [see "n=" in graph]

\*Base of the respective groups is too small to draw any conclusions about this group

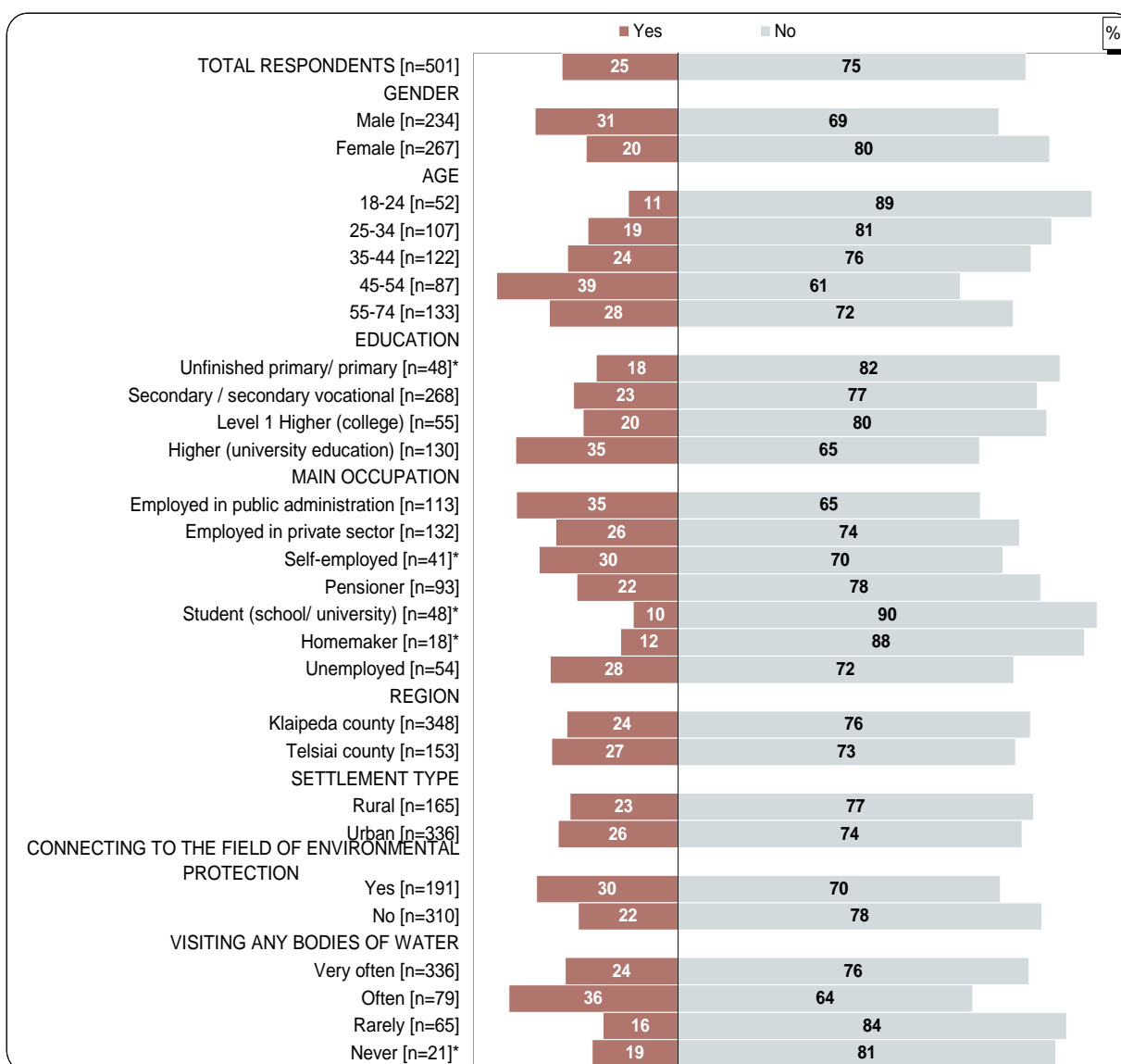
## 2.9. Population awareness of plans for the management of river basin areas

*Question formulation: Have you heard of plans for the management of river basin areas?*



Base: total respondents in Lithuania, n=501

Every fourth respondent (25%) has heard of plans for the management of river basin areas. Awareness of plans for river basin area management increase as respondent age increases. This tendency lasts until the age of 54. The awareness of older respondents (55-74 years) is already slightly lower. Men, respondents with a higher education as well as those with links to the field of environmental protection are better informed overall.



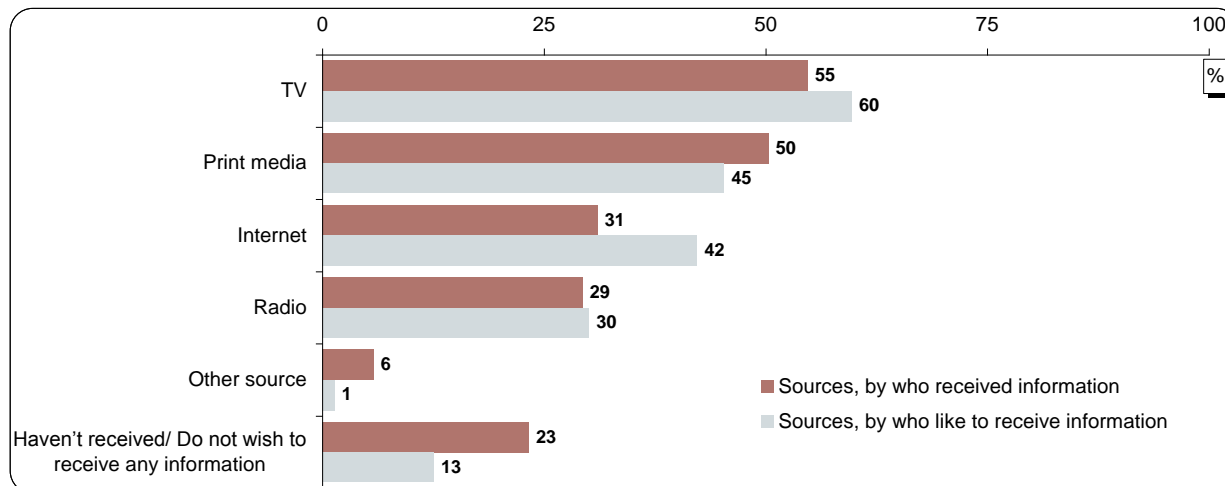
Base: respondents in the respective group [see "n=" in graph]

\*Base of the respective groups is too small to draw any conclusions about this group

## 2.10. Sources of information with regard to water management issues

*Question formulation: Up to now, what sources have you obtained information from on river, lake, coastal and underground water management issues??*

*How would you like to receive current information on issues of river, lake, coastal and underground water management??*



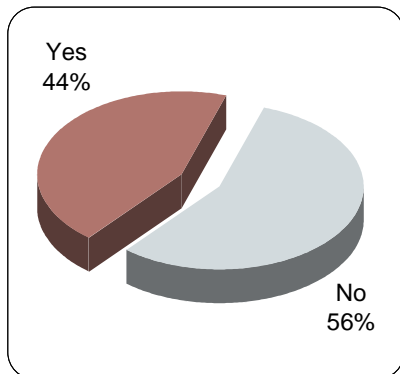
Base: total respondents in Lithuania, n=501

Over half those surveyed have received information on issues of river, lake, coastal and underground water management from TV (55%) and print media (50%). Slightly less than a third – from the internet (31%) and radio (29%). Slightly more than a fifth of respondents have answered that they have not received this kind of information or are not interested in these issues.

In the future, residents of the Venta River area in Lithuania would prefer to receive information on issues of river, lake, coastal and underground water management from TV (60%); print media or the internet – approximately 40%. A third of respondents have mentioned radio as their preferred source of information. Only 13% of those surveyed indicated that they do not wish to receive this type of information.

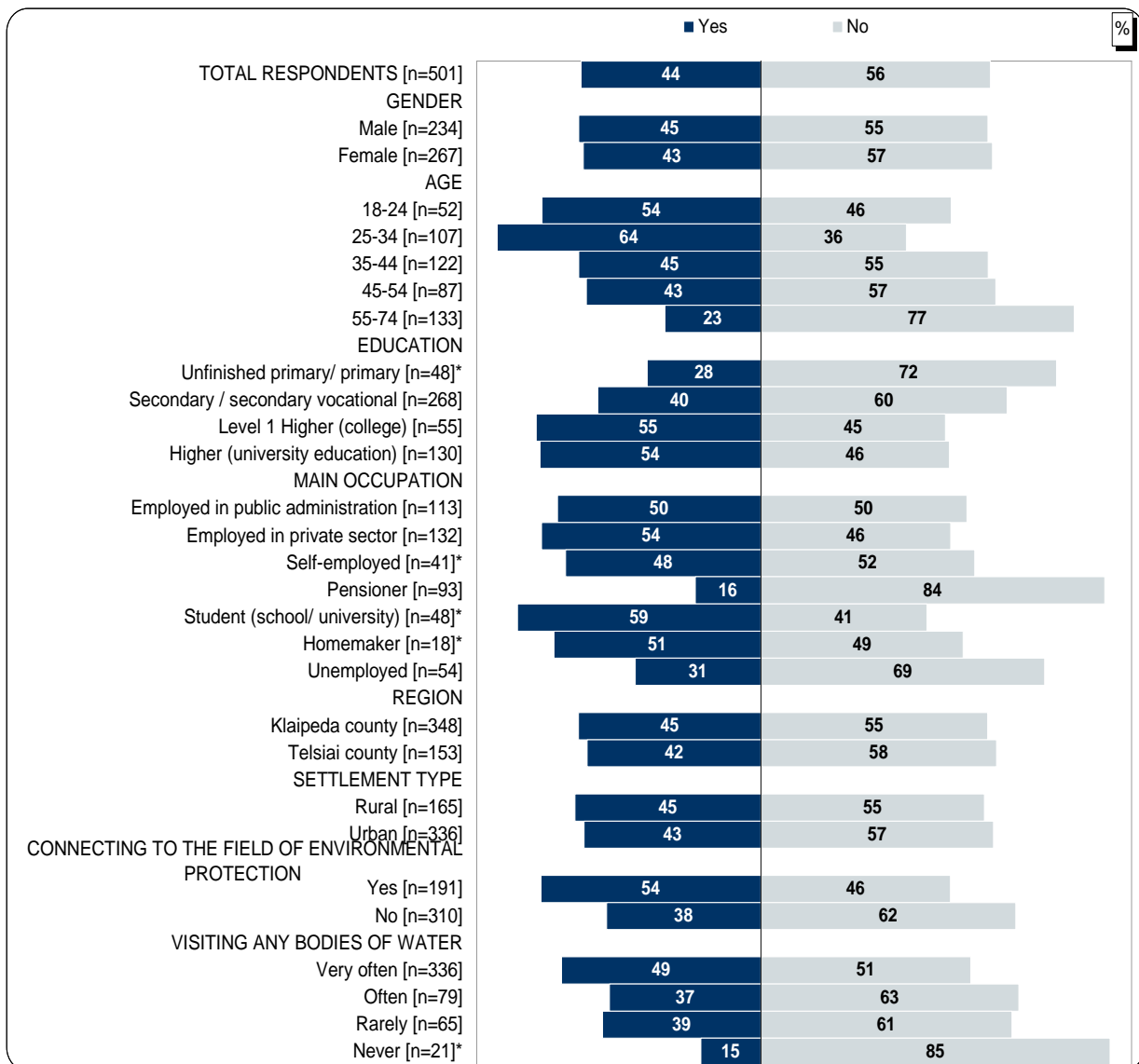
## 2.11. Population involvement in the management of natural bodies of water

*Question formulation: Would you like to get involved in the management of a river, lake, or coastal area?*



Almost half of those surveyed have expressed their desire to get involved in the management of a river, lake or coastal area. A greater interest was expressed by people with a higher education, university/ school students, people in the 25-34 age group, as well as those Venta River area residents with links to environmental issues and frequent visitors of bodies of water.

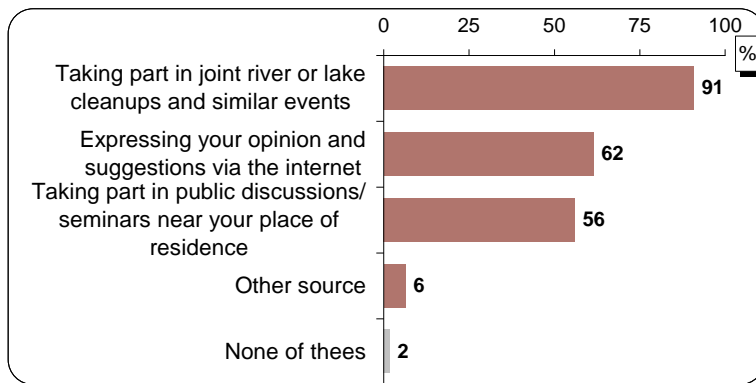
Base: total respondents in Lithuania, n=501



Base: respondents in the respective group [see "n=" in graph]

\*Base of the respective groups is too small to draw any conclusions about this group

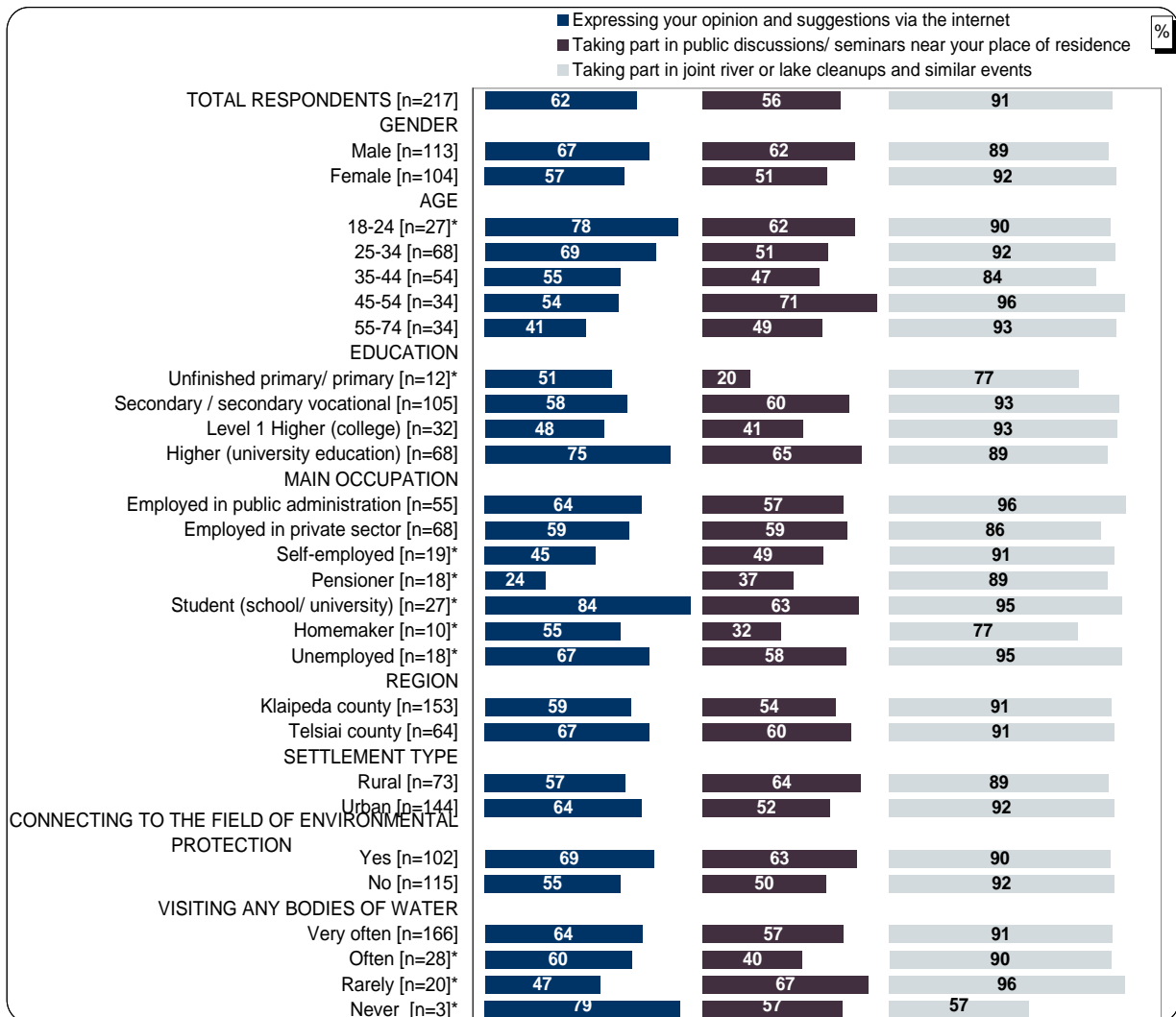
Question formulation: Which of these activity options would you be interested in?



Base: respondents, who like to get involved in the management of a river, lake, or coastal area, n=217

Almost all the respondents who would like to get involved in coastal/ shore management activities are willing to take part themselves in river or lake cleanups and similar events (this constitutes 40% of respondents overall).

A desire to express their opinion via the internet was more often mentioned by people with a higher education and younger respondents. As age increases, interest in this form of participation decreases. Respondents between 45 – 54 years of age have stated their willingness to take part in public discussions/ seminars near their home more often than others.



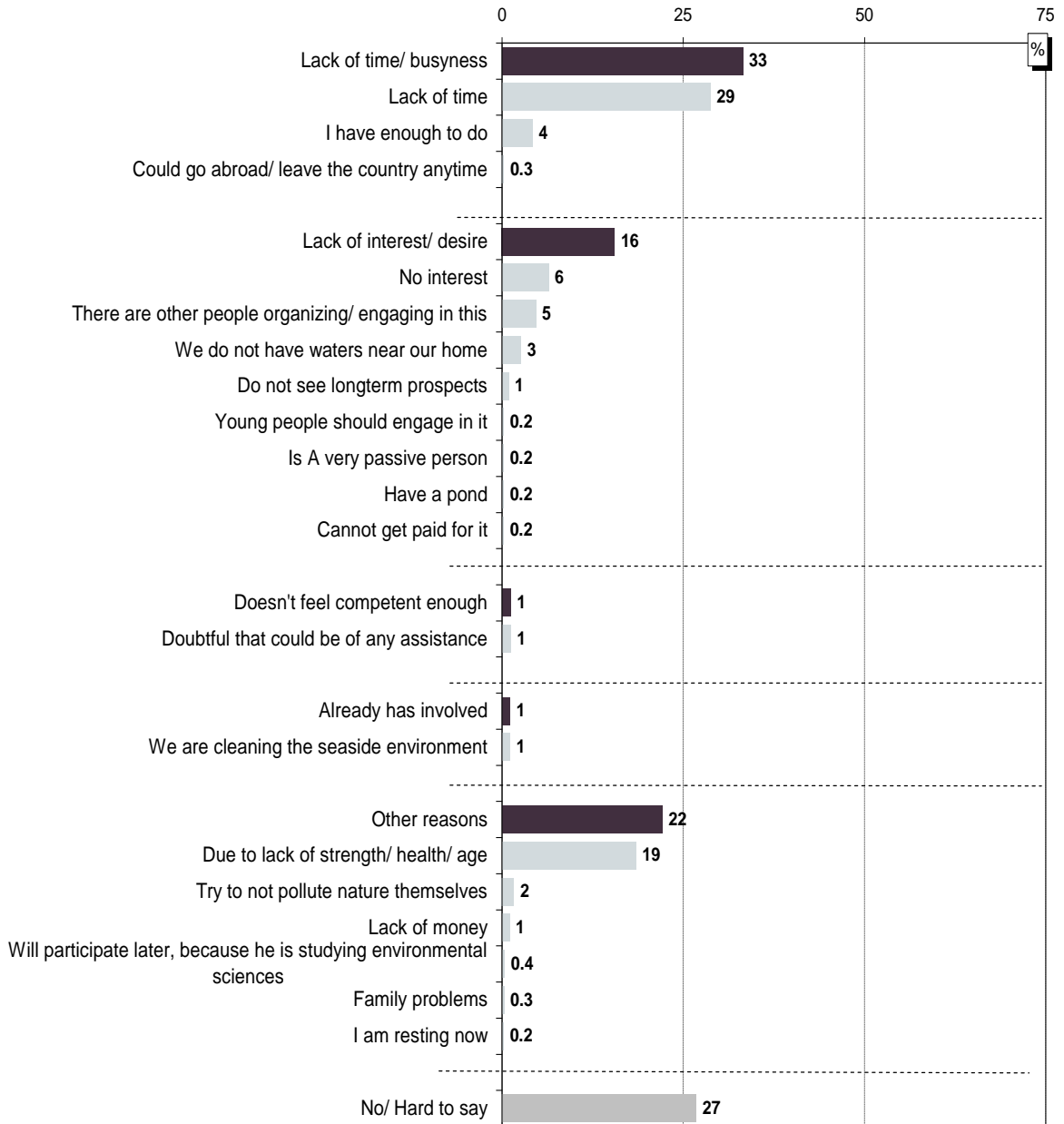
Base: respondents in the respective group [see "n=" in graph]

\*Base of the respective groups is too small to draw any conclusions about this group

**Research / project:** Venta River Area Residents' Awareness About Water Management Issues

The respondents who did not wish to participate in the management of a river, lake or coastal shore area were asked about their reasons. The most frequently given answers were a lack of time and interest.

Question formulation: *Can you please explain why not?*



Base: respondents, who not like to get involved in the management of a river, lake, or coastal area, n=284

## SURVEY TECHNICAL INFORMATION

Survey	Venta River Area Residents' Awareness About Water Management Issues
The survey is conducted by	RAIT Ltd.
Target group	Permanent residents of the Klaipeda and Telsiai Counties aged 18 to 74
Planned sample size	500 respondents
Achieved sample size	501 respondents
Sampling method	Stratified random sampling
Survey method	CATI (telephone interviews)
Geographical coverage	Klaipeda and Telsiai Counties
Time of survey	27.04.2011. – 15.05.2011.

Contacts with potential respondent	2993
Completed interviews	501
Total number of non-response	4516

### Comparison of achieved sample with statistics of population

	Portion of respondents before data weighting (%)	Portion of respondents after data weighting (%)	Statistical data
<b>TOTAL</b>	100.0	100.0	100.0
<b>GENDER</b>			
Male	46.7	47.1	47.1
Female	53.3	52.9	52.9
<b>AGE</b>			
18 - 24	10.4	16.1	16.1
25 - 34	21.4	18.7	18.7
35 - 44	24.4	19.4	19.3
45 - 54	17.4	20.4	20.3
55 - 64	15.0	13.9	13.9
65 - 74	11.6	11.6	11.6
<b>REGION</b>			
Klaipeda county	69.5	69.1	69.6
Telsiai County	30.5	30.9	30.4
<b>SETTLEMENT TYPE</b>			
Urban	67.1	67.2	69.4
Rural area	32.9	32.8	30.6
<b>EDUCATION</b>			
Primary	9.6	10.2	
Secondary	27.1	27.8	
secondary vocational, college	37.3	36.3	
Higher	25.9	25.7	

### REASONS FOR NON – RESPONSE

	Count	Percentage division (%)
<b>CAN NOT BE CONNECTED</b>	372	18.4
<b>WRONG NUMBER</b>	1652	81.6
<b>TOTAL</b>	2024	100.0
<b>RESPONDENT IS NOT REACHABLE</b>		
Does not correspond the target group	1144	45.9
Does not want to participate in the survey	1199	48.1
Other	149	6.0
<b>TOTAL</b>	<b>2492</b>	<b>100.0</b>

Responsible for the field work	Laura Paskočinaite
Data processing specialist	Martynas Zenkevičius

# **LATVIA AND LITHUANIA – TOTAL SURVEY TERRITORY**

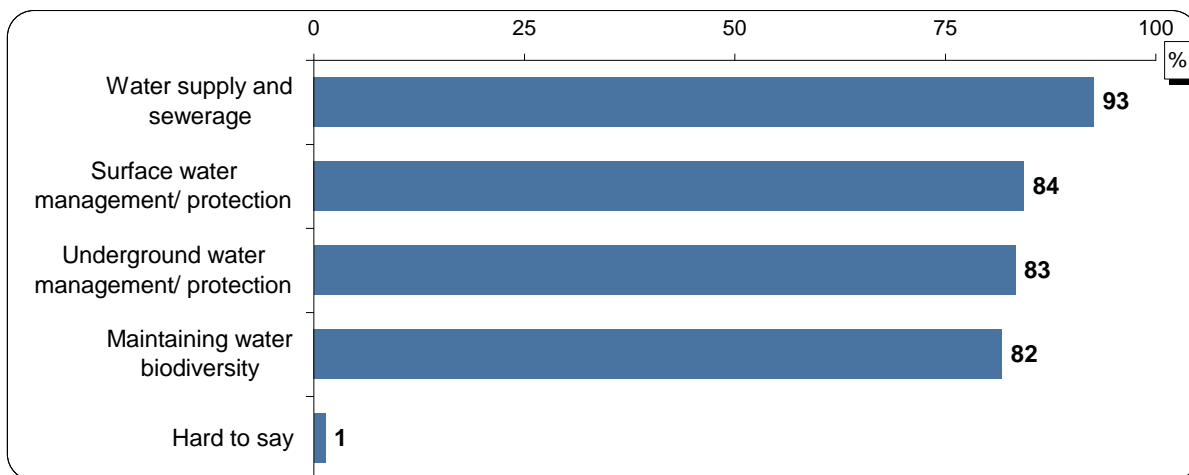


**RESULTS**

**3.1. Understanding of the term “water resources management”**

*Question formulation: In your opinion, what is included in the term “water resources management”?*

Overall, 65% of respondents know that the term "water resources management" includes all four possible answers. Looking at each response option separately, it can be seen that the frequency of mentioning is high for all of them. The most frequently mentioned response is 'water supply and sewerage', mentioned by almost all the respondents in Latvia and Lithuania.

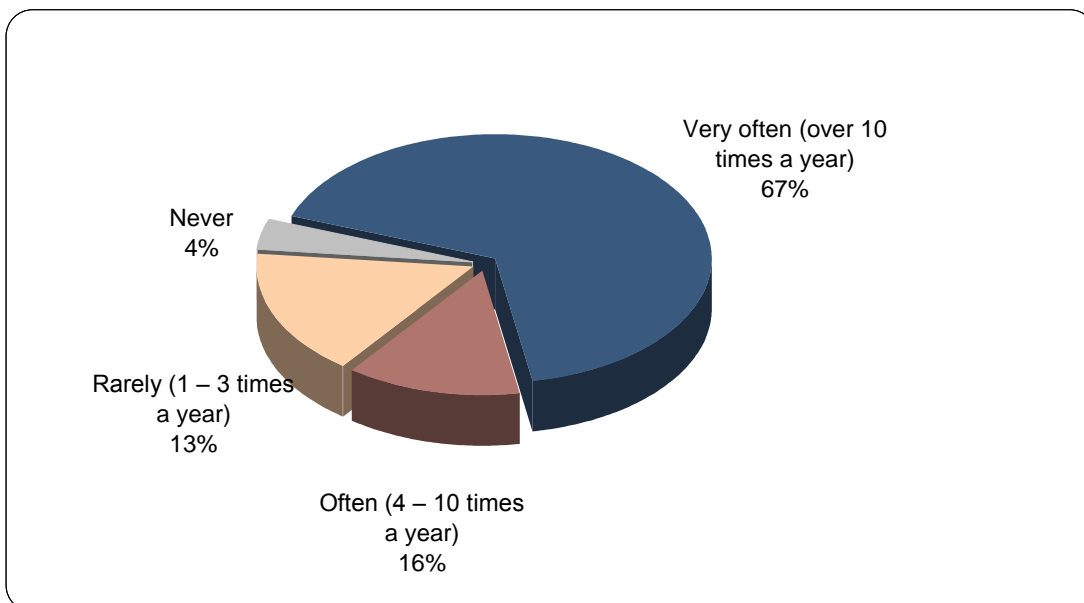


Base: total respondents in Latvia and Lithuania, n=1006

**3.2. Frequency of visits to bodies of water**

*Question formulation: On average, how many times a year during the last 5 years have you visited any bodies of water, for example, to swim, fish, take a boat ride or just relax? A body of water can be a river, lake or beach located in Latvia/ Lithuania?*

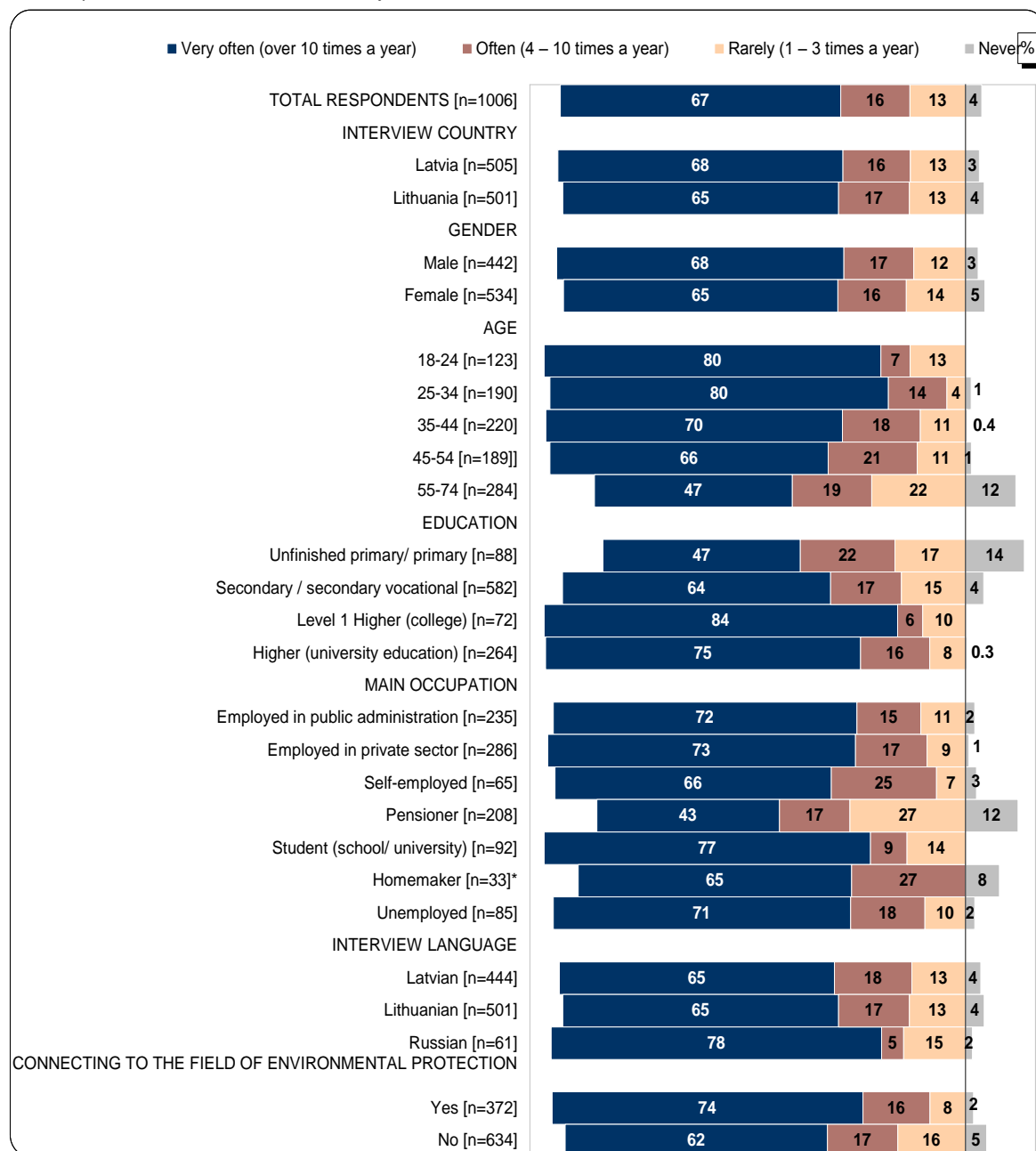
Of all the respondents, two thirds visit bodies of water more than 10 times a year. Only 4% of the respondents have never visited bodies of water in the last five years.



Base: total respondents in Latvia and Lithuania, n=1006

## Research / project: Venta River Area Residents' Awareness About Water Management Issues

"On average, how many times a year during the last 5 years have you visited any bodies of water, for example, to swim, fish, take a boat ride or just relax?"



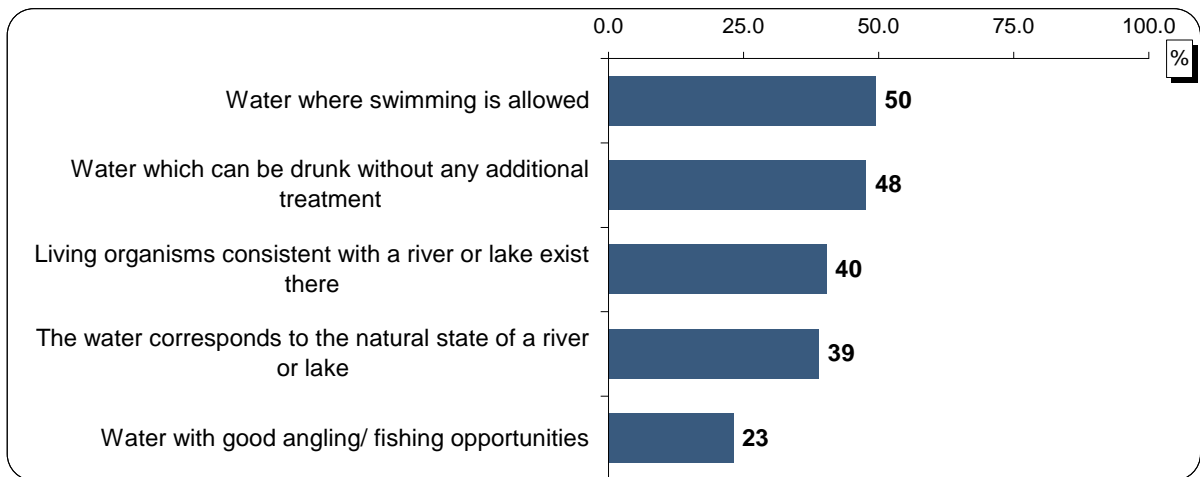
Base: respondents in the respective group [see "n=" in graph]

\*Base of the respective groups is too small to draw any conclusions about this group

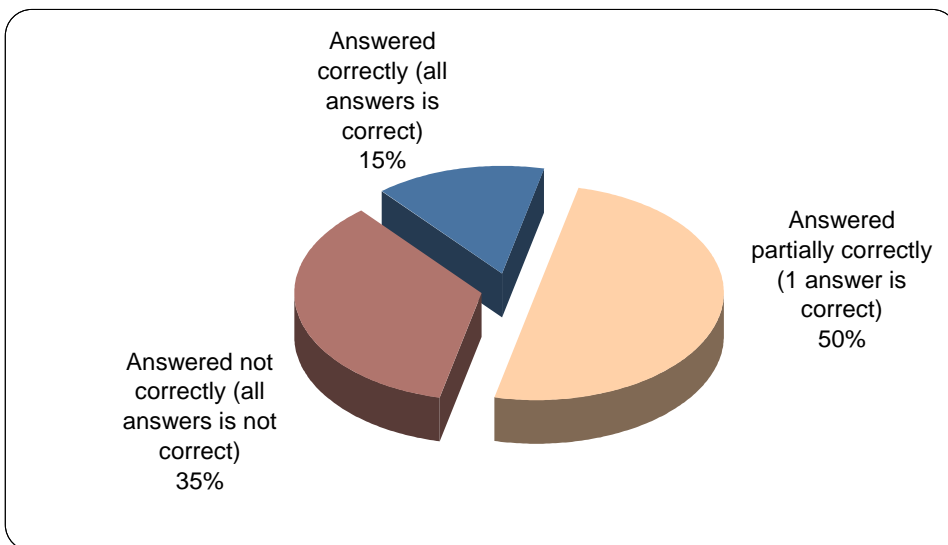
Practices of visiting water bodies differ among different age and education level groups. As respondent age increases, frequency of visiting bodies of water decreases; a tendency of residents with a higher level of education showing a greater interest in visiting bodies of water can also be observed.

### 3.3. Understanding of good quality of water in a river or lake

*Question formulation: Now I'm going to read out five statements. Please tell me which two of these would best describe good quality of water in a river or lake, in your opinion?*



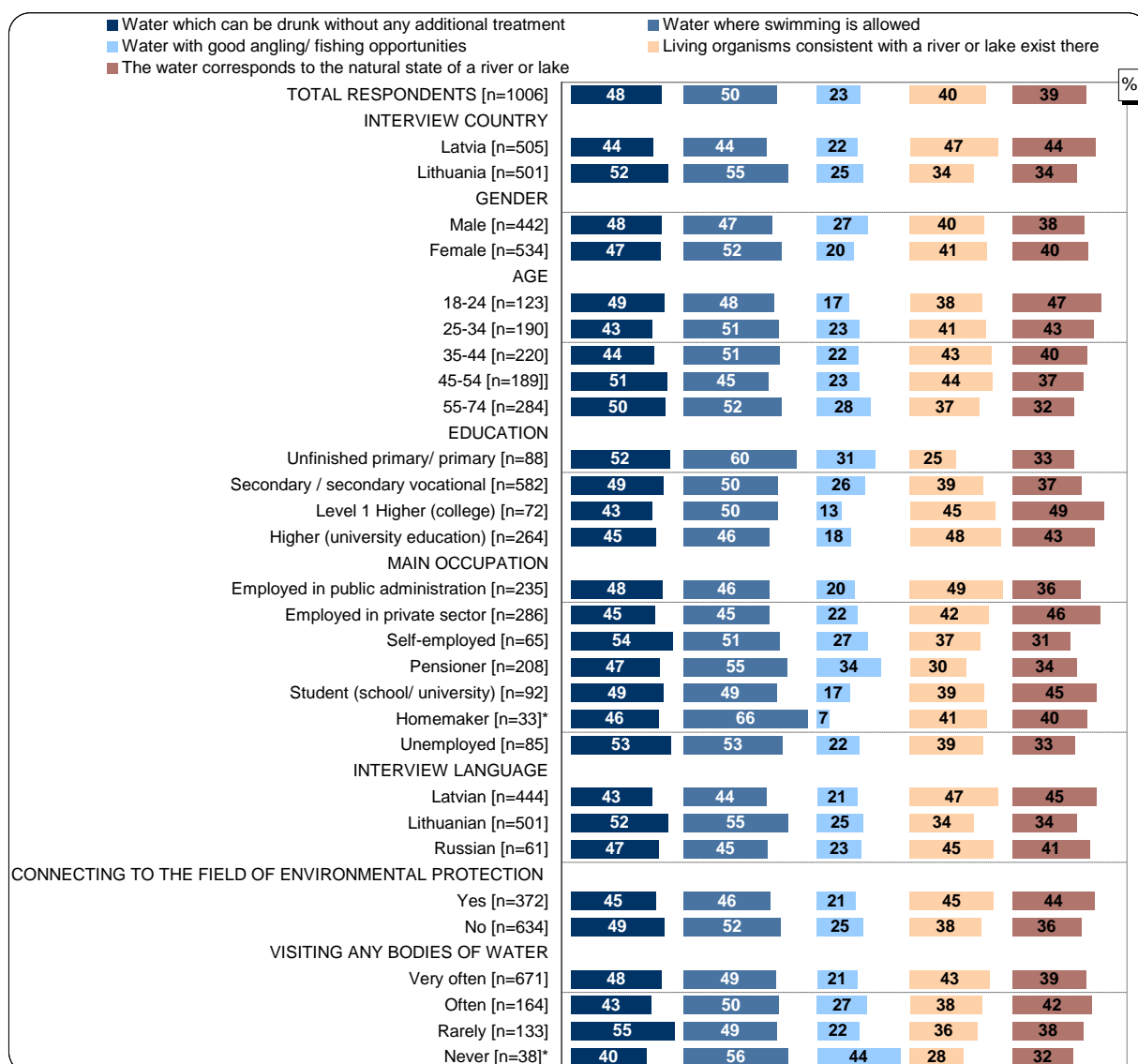
Base: total respondents in Latvia and Lithuania, n=1006



Base: total respondents in Latvia and Lithuania, n=1006

In this case, 'answered correctly' means the respondents have given both of the correct answers - 'living organisms consistent with a river or lake exist there' and 'the water corresponds to the natural state of a river or lake'. 'One correct response' means that of two of the respondent's answers, one is 'living organisms consistent with a river or lake exist there' or 'the water corresponds to the natural state of a river or lake'. 'No correct responses' means that the respondent has not given any of the aforementioned answers.

The data indicates that the level of understanding of good quality of water is higher in Latvia than in Lithuania.



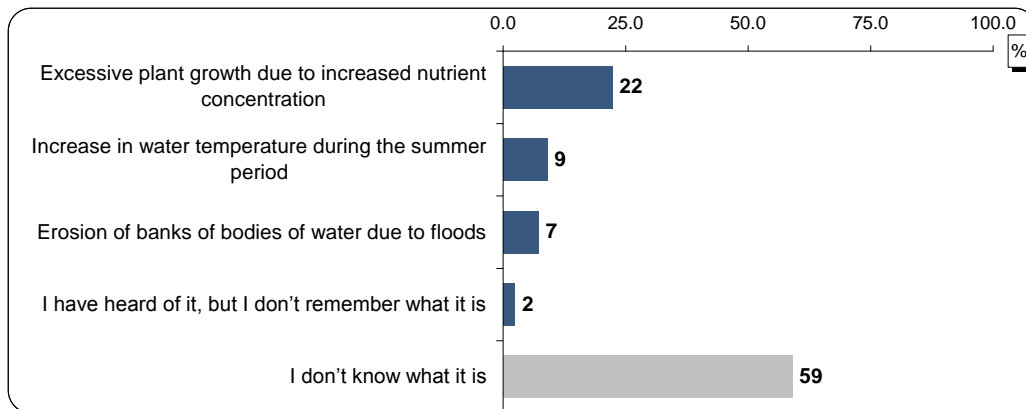
Base: respondents in the respective group [see "n=" in graph]

\*Base of the respective groups is too small to draw any conclusions about this group

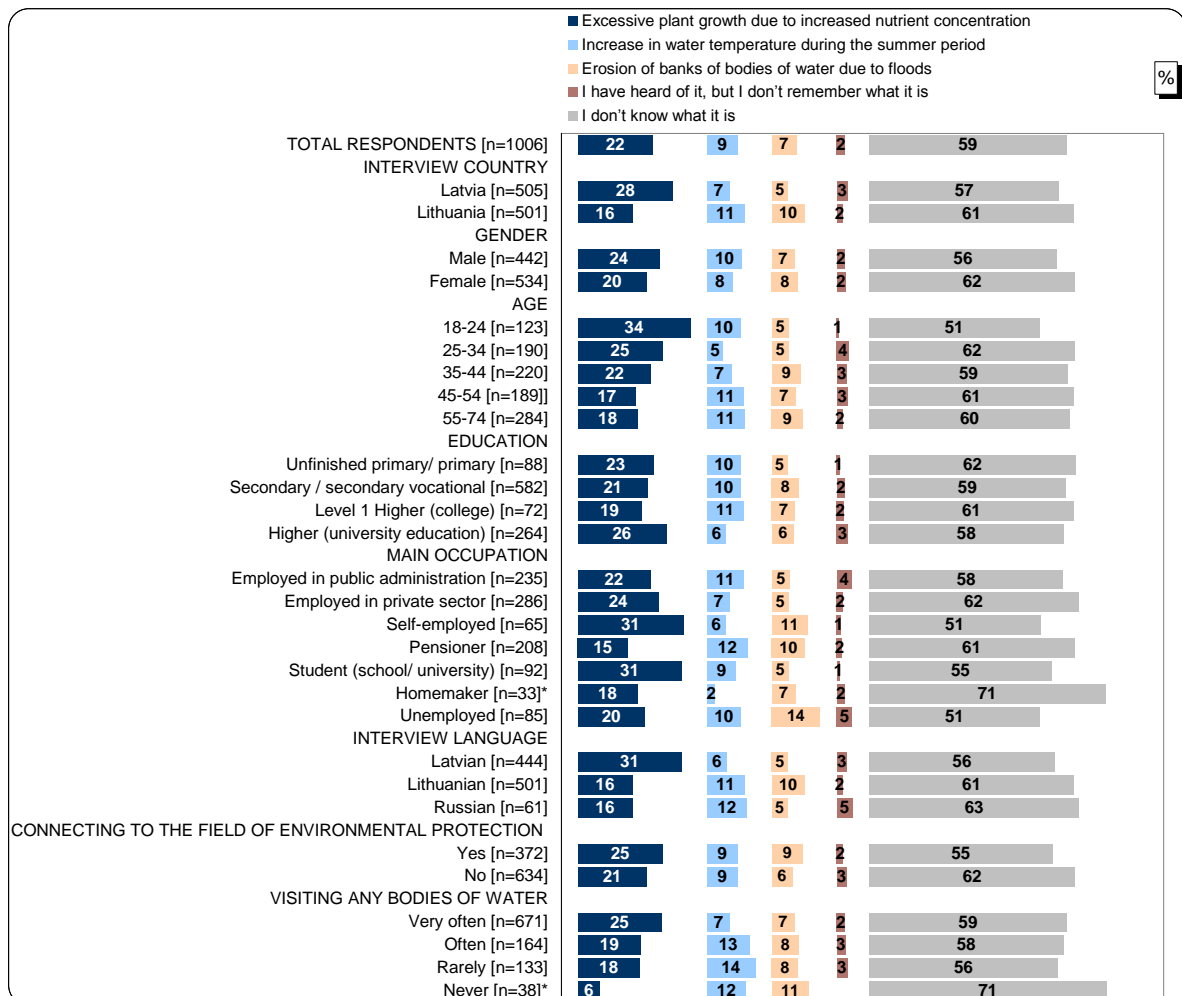
### 3.4. Understanding of the term „eutrophication of water”

*Question formulation: What, in your opinion, is the eutrophication of water?*

Approximately a fifth of respondents have given the answer that eutrophication of waters is excessive plant growth due to increased concentrations of nutrients. This term and its meaning are more familiar to younger people, those who have answered in Latvian, as well as those who visit bodies of water more often on average. .



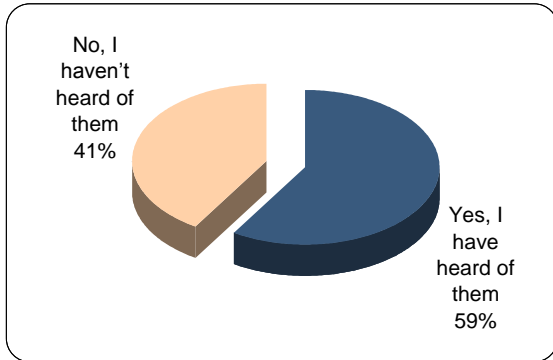
Base: total respondents in Latvia and Lithuania, n=1006



Base: respondents in the respective group [see "n=" in graph]

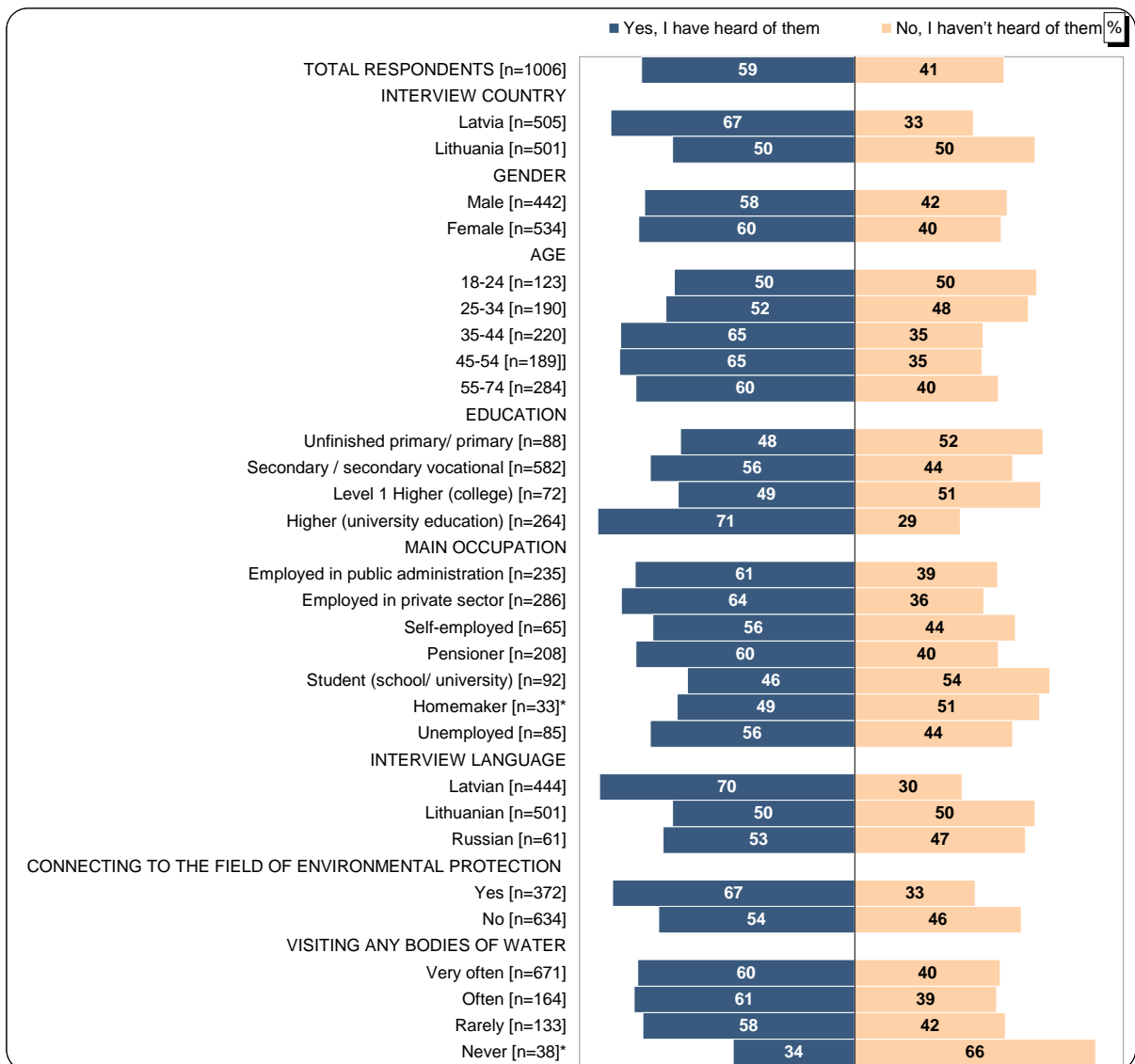
\*Base of the respective groups is too small to draw any conclusions about this group

*Question formulation: Have you heard of water eutrophication problems existing in Latvia/Lithuania?*



After the description is read out (“the eutrophication of water is excessive plant growth due to increased nutrient (nitrogen and phosphorus) concentration”) over half of respondents in the surveyed territory in Latvia and Lithuania state that they have heard of the problem of the eutrophication of waters.

Base: total respondents in Latvia and Lithuania, n=1006

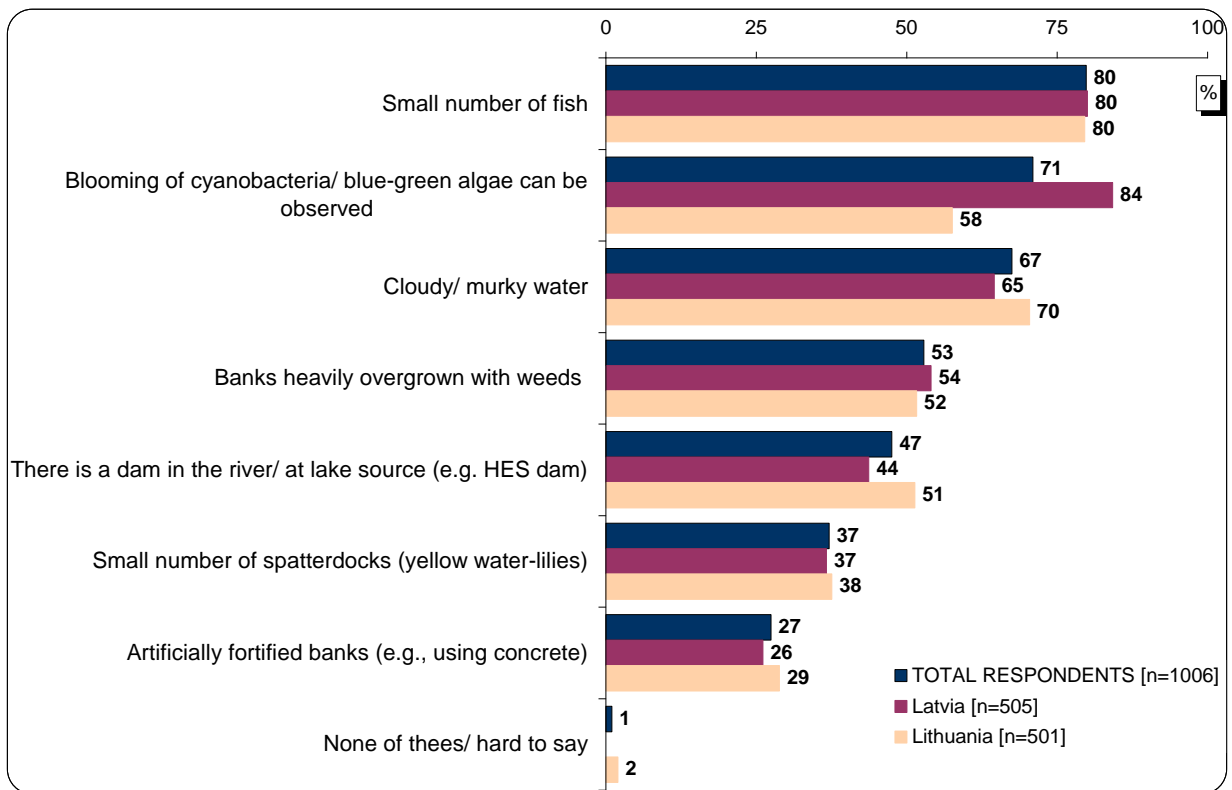


Base: respondents in the respective group [see "n=" in graph]

\*Base of the respective groups is too small to draw any conclusions about this group

### 3.5. Features indicating low quality of water

*Question formulation: Which of the following features would indicate low quality of water in a river or lake?*



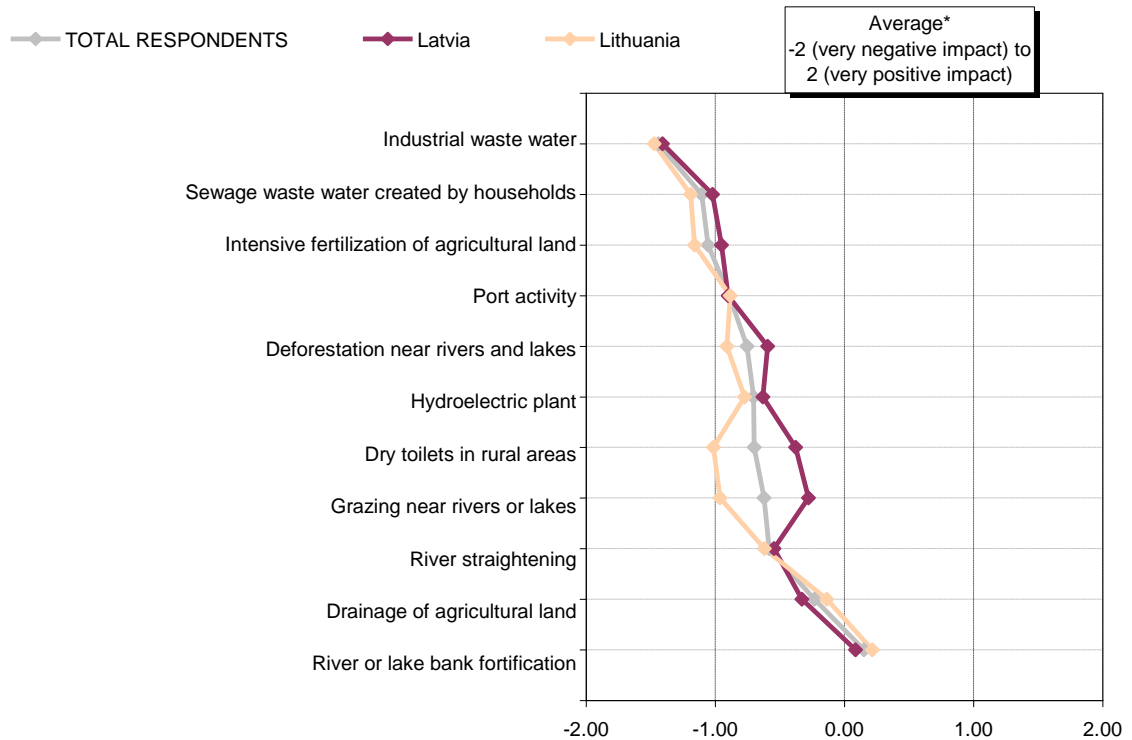
Base: respondents in the respective group [see "n=" in graph]

This graph reflects the differences in evaluations by respondents in Latvia and Lithuania.

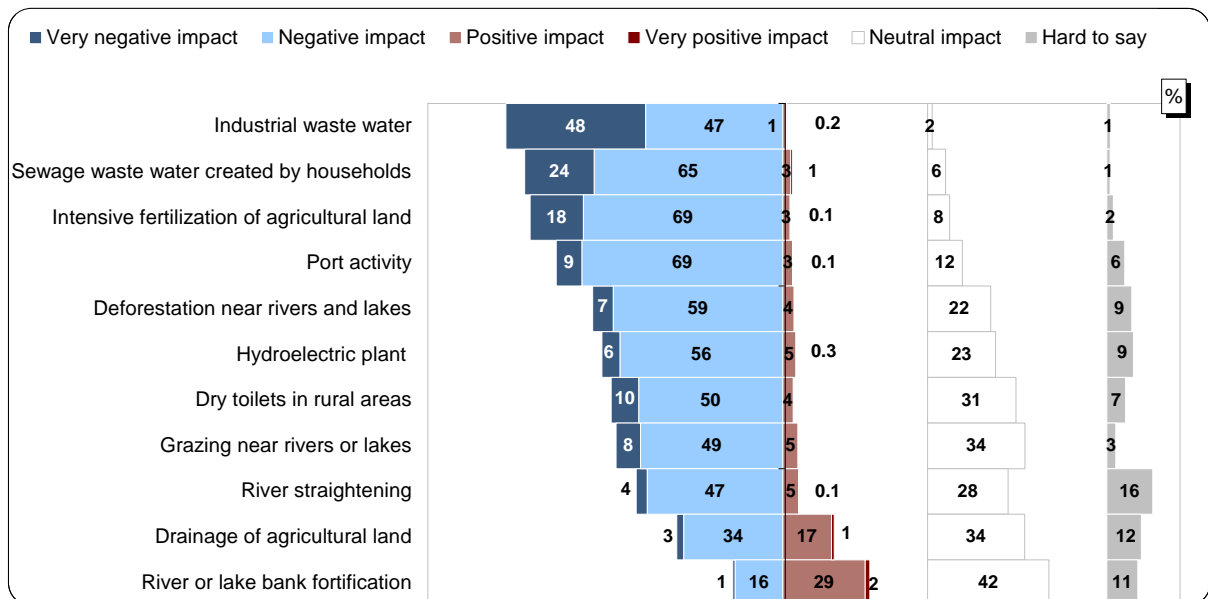
### 3.6. Evaluation of factors impacting the quality of waters

*Question formulation: What type of impact – a positive or negative one - do you think the following human activities have on the quality of river, lake, coastal or underground waters?*

Within the total survey territory, respondent answers reflect the same tendency previously shown in the answers of respondents in Latvia and Lithuania, i.e., the impact of industrial waste water on the quality of water has received the most negative assessment.



Base: respondents, who have given a specific evaluation, [see "n=" in graph]



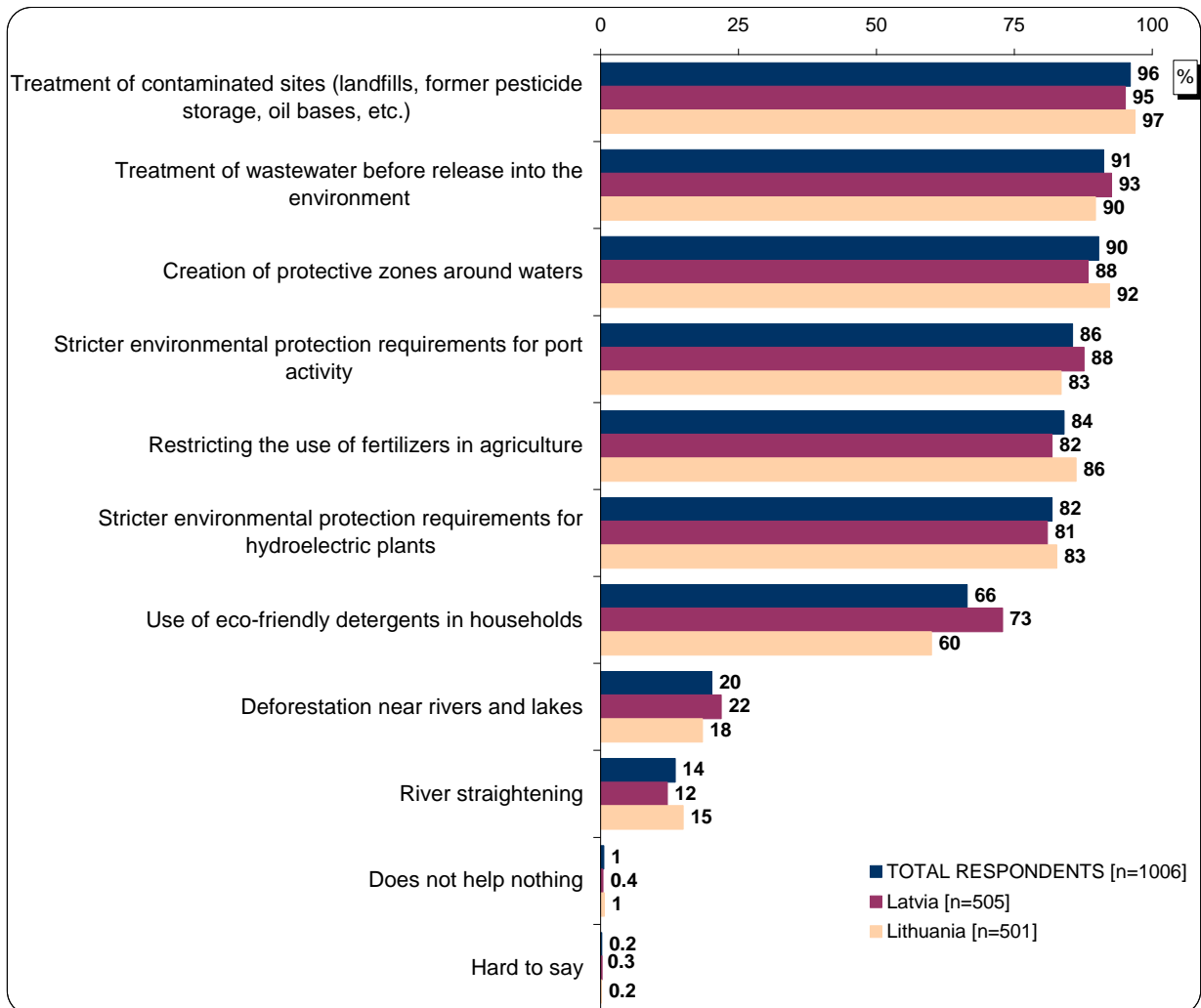
Base: total respondents in Latvia and Lithuania, n=1006

### LATVIA and LITHUANIA



### 3.7. Measures to protect and improve the condition of waters

*Question formulation: What measures do you think help to protect and improve the condition of river, lake, coastal and underground waters?*

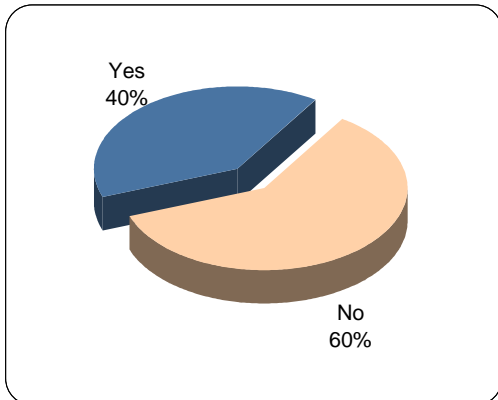


Base: respondents in the respective group [see "n=" in graph]

The most significant differences between the answers given by respondents in Latvia and Lithuania appear in the question on the use of eco-friendly detergents in households. Other differences are statistically insignificant.

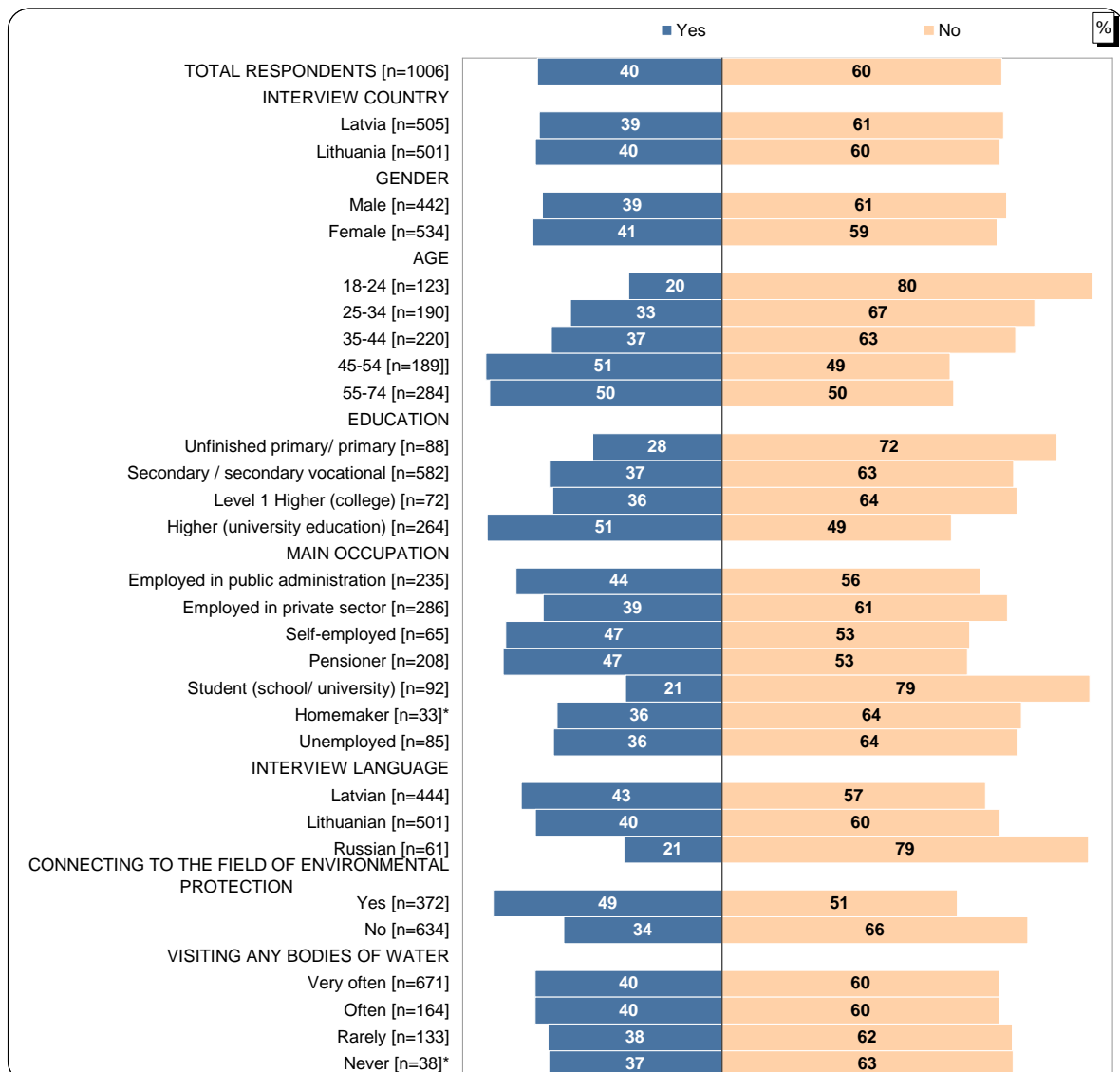
### 3.8. Population awareness of plans for the management of specially protected nature territories

Question formulation: Have you heard of plans for the management of specially protected nature territories?



40% of those surveyed have heard of plans for the management of specially protected nature territories. Awareness of management plans increases as respondent age and education level increases. People who have answered in Latvian and Lithuanian have a higher level of awareness, as do those with links to the field of environmental protection.

Base: total respondents in Latvia and Lithuania, n=1006

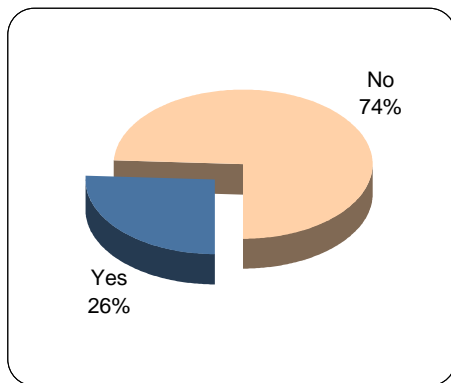


Base: respondents in the respective group [see "n=" in graph]

\*Base of the respective groups is too small to draw any conclusions about this group

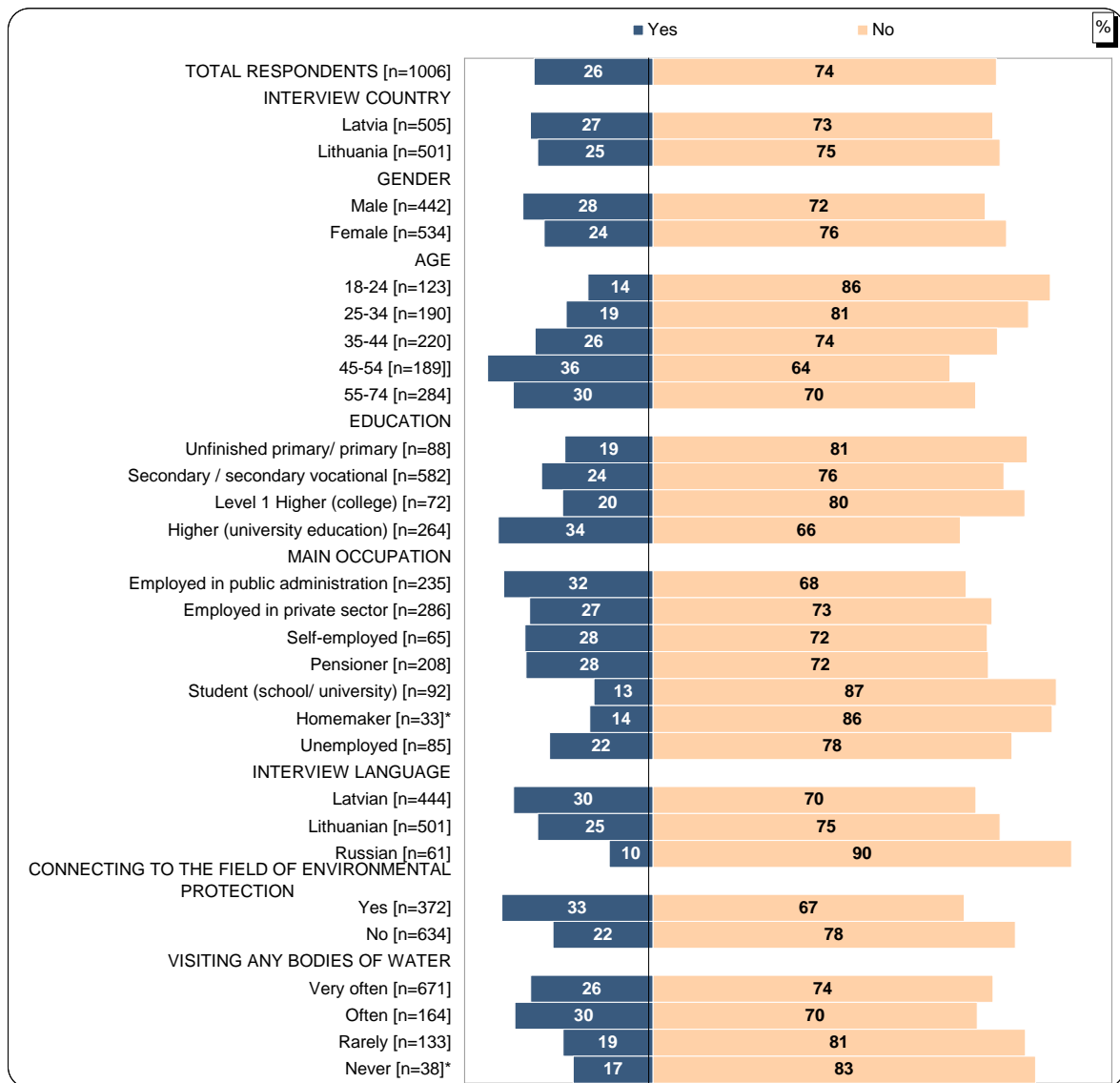
### 3.9. Population awareness of plans for the management of river basin areas

*Question formulation: Have you heard of plans for the management of river basin areas?*



About a quarter of respondents have heard of plans for the management of river basin areas. A tendency of awareness level increasing as respondent age increases can be observed.

Base: total respondents in Latvia and Lithuania, n=1006



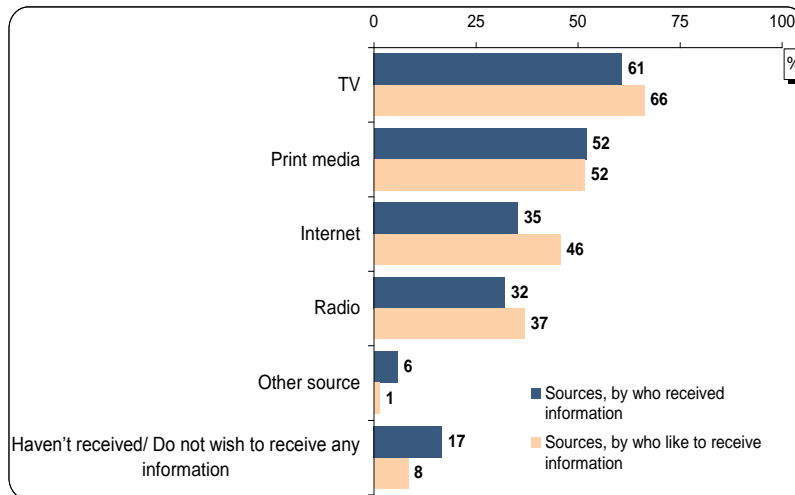
Base: respondents in the respective group [see "n=" in graph]

\*Base of the respective groups is too small to draw any conclusions about this group

### 3.10. Sources of information with regard to water management issues

*Question formulation: Up to now, what sources have you obtained information from on river, lake, coastal and underground water management issues??*

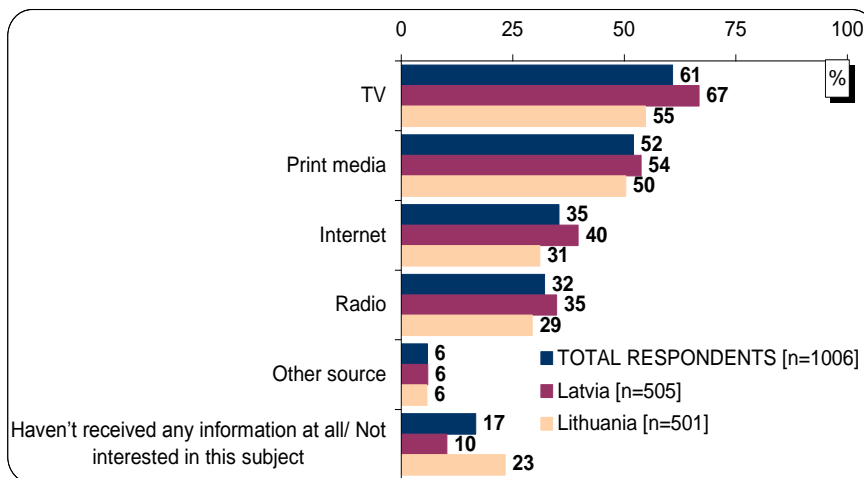
*How would you like to receive current information on issues of river, lake, coastal and underground water management?*



Base: total respondents in Latvia and Lithuania, n=1006

Comparing the results of where respondents obtain information and where they would like to obtain it in the future, it is evident that respondents would like to receive additional information from the same mass media they already use, with the exception of print media, which in the opinion of respondents has enough information already.

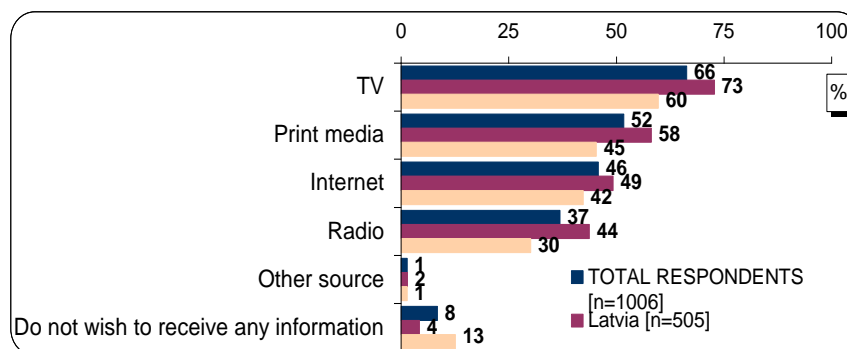
#### a) Up to now



Base: respondents in the respective group [see "n=" in graph]

Respondents in Latvia use all mass media more than respondents in Lithuania. Overall 17% of respondents have admitted that they have not received this kind of information or are not interested in water management issues.

#### b) Would like



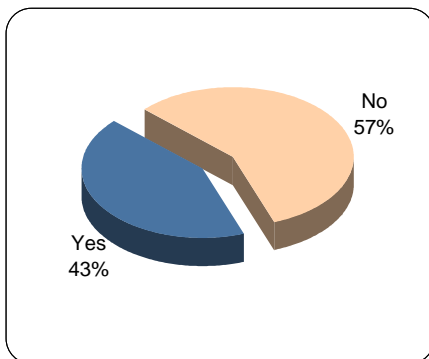
Base: respondents in the respective group [see "n=" in graph]

Respondents in Latvia have expressed a greater interest in receiving additional information through traditional media channels.

### LATVIA and LITHUANIA

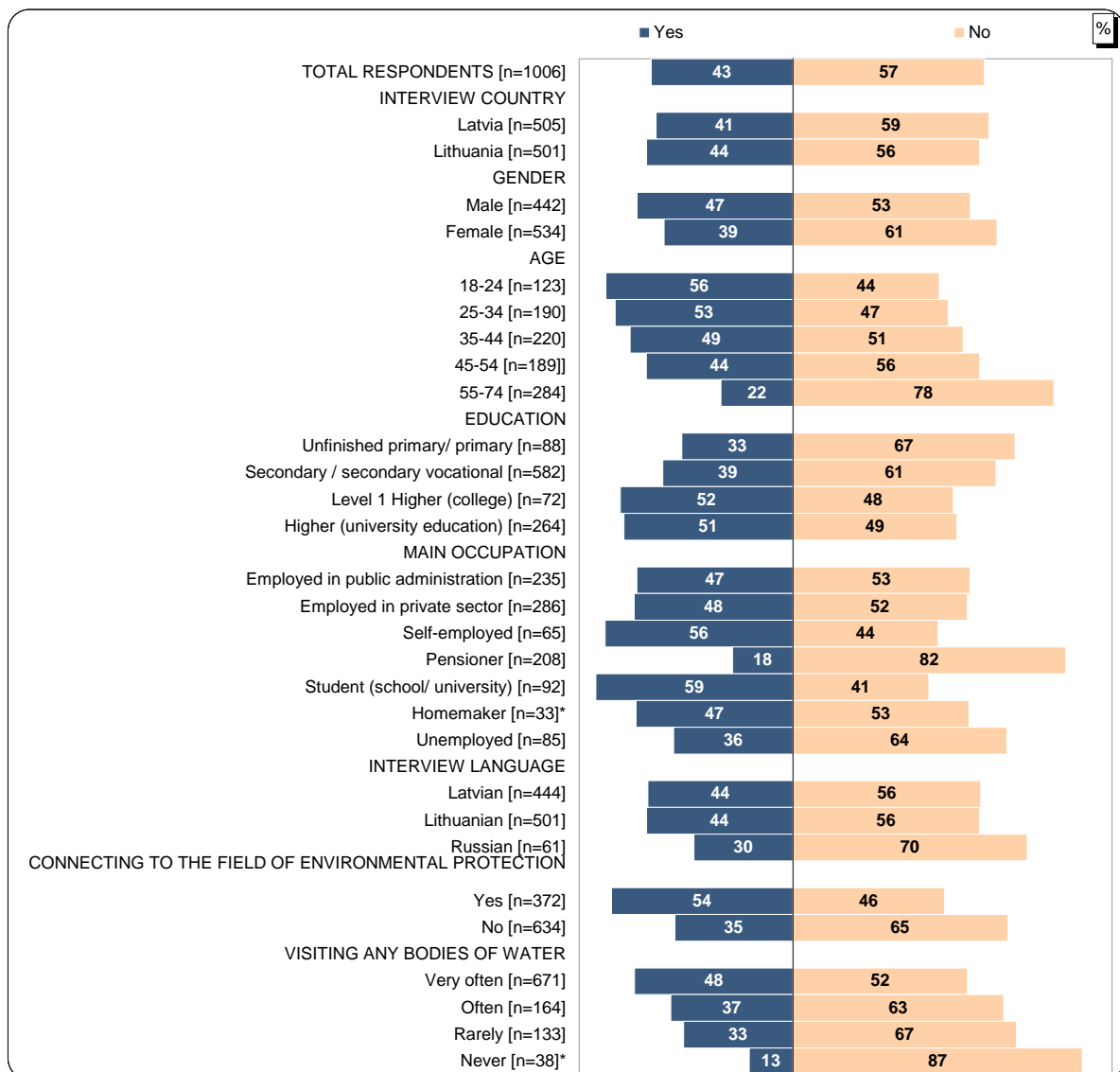
### 3.11. Population involvement in the management of natural bodies of water

Question formulation: *Would you like to get involved in the management of a river, lake, or coastal area?*



Almost half of those surveyed have expressed their desire to get involved in the management of a river, lake or coastal area. A greater interest was expressed by respondents with a higher level of education, those with links to environmental issues as well as those who more often spend time by bodies of water. The data indicates that interest declines as respondent age increases.

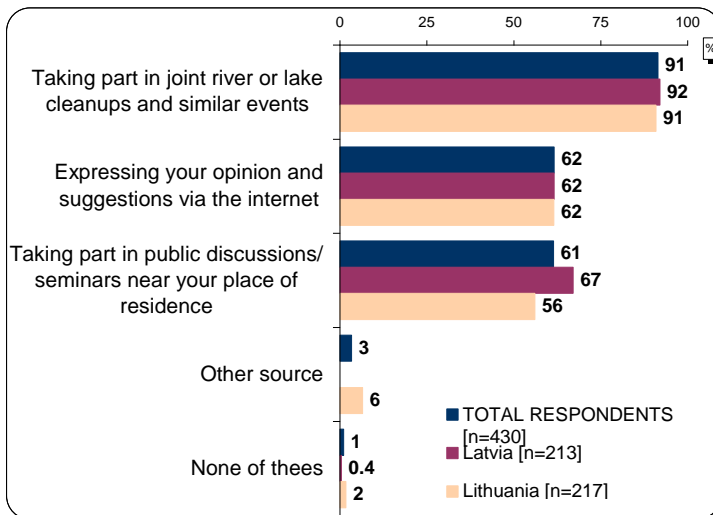
Base: total respondents in Latvia and Lithuania, n=1006



Base: respondents in the respective group [see "n=" in graph]

\*Base of the respective groups is too small to draw any conclusions about this group

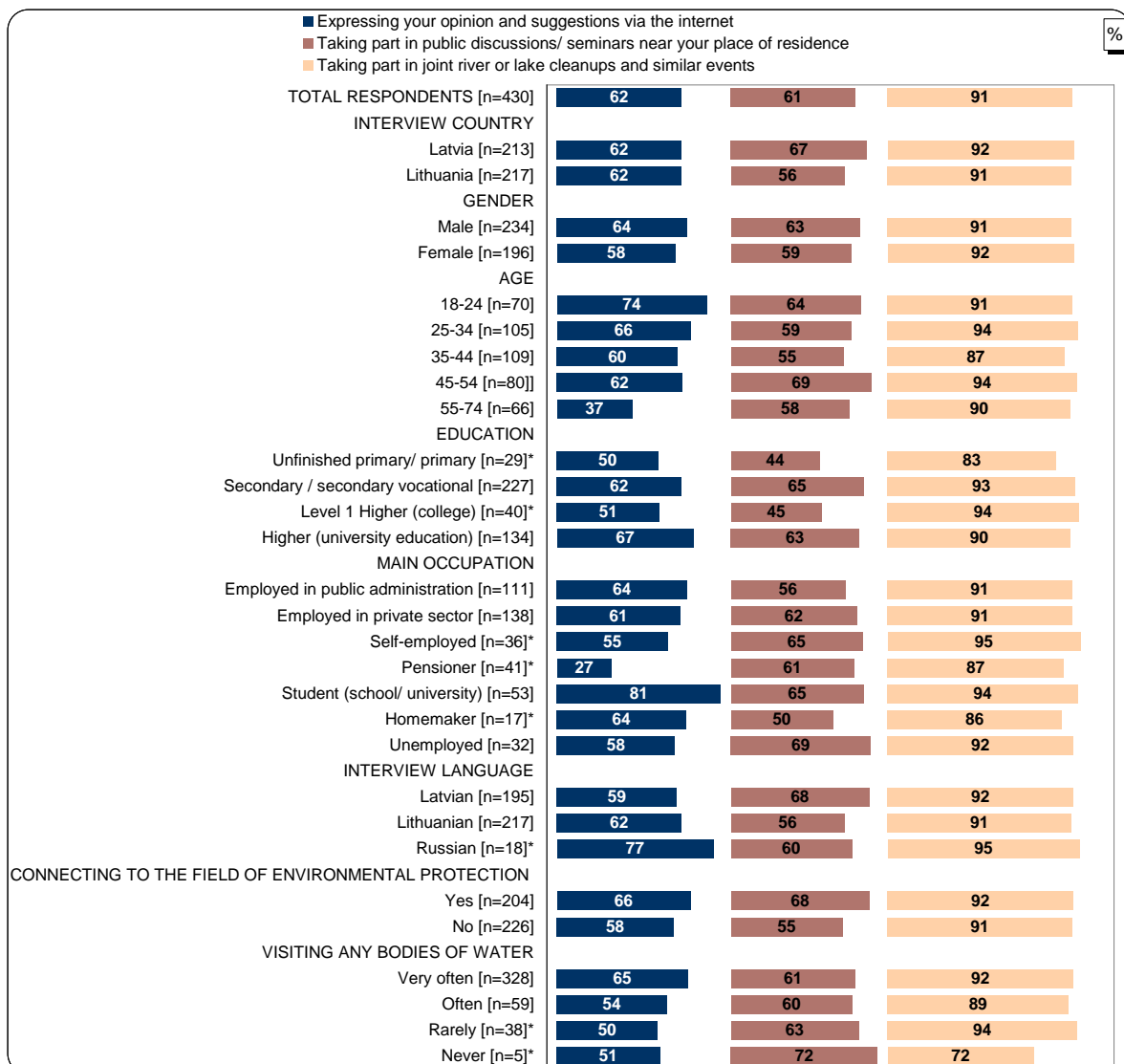
Question formulation: Which of these activity options would you be interested in?



Base: respondents, who like to get involved in the management of a river, lake, or coastal area, n=430

Latvian and who have links to the field of environmental protection. Expressing their opinion via the internet seems most attractive to younger residents, those who visit bodies of water more frequently, as well as Russian speakers.

The majority of respondents have expressed their willingness to take part in river or lake cleanups and similar events. Slightly more respondents in Latvia, compared with those in Lithuania, would like to take part in public discussions and seminars near their homes. A greater willingness to take part in public discussions/ seminars near their place of residence has been expressed by respondents in Latvia who speak



Base: respondents in the respective group [see "n=" in graph]

\*Base of the respective groups is too small to draw any conclusions about this group

# APPENDIX

## NOTES AND REMARKS

Question formulation: Do you have any comments or anything to add in connection with these survey questions?

### Latvia

	Count
<b>Evaluation of the survey</b>	<b>62</b>
Informative survey/ inquiring/ comprehensive questions	15
Interesting/ good survey	12
Important survey for people to be more aware of the situation	5
Some unclear, specific terms	5
Tiring/ too long survey	4
Complicated survey	3
Some repeat questions	3
Some questions could be more detailed	3
Had to think in order to answer some questions	3
Questions encourage thinking about environmental protection	2
Too many questions	2
Many unnecessary questions	2
Doubtful whether such surveys can help nature	2
Questions too comprehensive	1
Some questions require a deeper knowledge of the field	1
A survey of this kind should be internet-based, to have an opportunity to consider the response options	1
Biased questions	1
Many fields not touched upon	1
The target audience should be high school students, youth	1
<b>Wishes/ suggestions expressed regarding environmental protection</b>	<b>26</b>
To improve the situation, the attitude of the government should be changed regarding this issue	4
People should be educated more on environmental protection issues	3
People should observe tidiness and cleanliness when spending time at waters	3
People should be educated since childhood to take care of the environment and think green	2
Everyone likes clean water	2
Happy that someone is concerned with environmental protection	2
Laws for the protection of bodies of water do not work due to lack of controls	1
Use of mineral fertilizers should be prohibited	1
Most of the small hydroelectric plants should be closed	1
A large part of private lakes are being destroyed due to owner negligence	1
Wishes more attention was paid to environment	1
Interest should have awoken earlier, during Perestroika	1
Facilities on shores should be updated - for example, rubbish bin placement	1
People should engage more in joint cleanups and improve shores of waters	1
Nature should be natural, so it is left for our children's children	1
We would like to see the survey results	1
There should be info on where to call if water pollution or leaving rubbish near water is observed	1
<b>Nothing to add</b>	<b>420</b>



Lithuania

	Count
<b>Evaluation of the survey</b>	<b>62</b>
Good questionnaire, interesting, topical questions	21
Complicated words/ phrases	7
Professionals should answer such questions	7
Some questions are wrong/ deceitful	5
It is hard to answer spontaneously	4
It took a lot of time	3
I am satisfied with the survey	2
Doubtful if this can help	2
Too many questions	2
Many response options	2
Some repeat questions	2
Survey too long	1
Did not know what to answer for several questions	1
Young people should answer such questions	1
It is not purposeful	1
Simple-minded questions	1
Such a survey should be online	1
Interesting to find out something new	1
Too few open questions	1
<b>Wishes/ suggestions expressed regarding environmental protection</b>	<b>1</b>
Government should pay more attention to this	1
<b>Nothing to add</b>	<b>438</b>

## QUESTIONNAIRE

### Survey of Residents of the Venta River Area

#### INTRODUCTION

Hello! My name is \_\_\_\_\_ and I represent the research centre SKDS. We are currently carrying out a survey commissioned by the Latvian Environment, Geology and Meteorology Centre, in order to determine the population's level on awareness of water management issues. The survey is financed by the European Regional Development Fund. The results of the survey will be used to carry out informative campaigns. Would you agree to answer our questions? The interview will be about 10-15 minutes long. We guarantee the anonymity of your answers and that the information obtained will be used in aggregate form only.

*If the respondent asks about the specific project this survey is part of, you can mention the name "Cross border cooperation in management of Venta river basin area nature values".*

#### MAIN QUESTIONNAIRE

**1. In your opinion, what is included in the term "water resources management"? Read out all the statements in turn. One response in each row.**

	Included	Not included	Hard to say
1   Water supply and sewerage	1*	2	9
2   Surface water (i.e., rivers, lakes and coastal waters) management/ protection	1*	2	9
3   Underground water management/ protection	1*	2	9
4   Maintaining water biodiversity – i.e., protection of fish, plants and other water-dwelling organisms	1*	2	9

**2. On average, how many times a year during the last 5 years have you visited any bodies of water, for example, to swim, fish, take a boat ride or just relax? A body of water can be a river, lake or beach located in Latvia/ Lithuania (corresponding to the country of questioning). If this is not clear to the respondent, explain – natural bodies of water, not artificially developed ones are meant by the question. One response. Do not accept answer "hard to say".**

Very often (over 10 times a year)	1
Often (4 – 10 times a year)	2
Rarely (1 – 3 times a year)	3
Never	4

**3. Now I'm going to read out five statements. Please tell me which two of these would best describe good quality of water in a river or lake, in your opinion? Mark two responses**

Water which can be drunk without any additional treatment	1
Water where swimming is allowed	2
Water with good angling/ fishing opportunities	3
Living organisms consistent with a river or lake exist there	4*
The water corresponds to the natural state of a river or lake	5*

**4. What, in your opinion, is the eutrophication of water? Read out first three options. Mark one response.**

Erosion of banks of bodies of water due to floods	1
Excessive plant growth due to increased nutrient concentration	2*
Increase in water temperature during the summer period	3

I have heard of it, but I don't remember what it is (do not read!)	4
I don't know what it is (do not read!)	5

\* The target responses that characterize the level of knowledge of the population regarding the respective question are marked. These responses were not highlighted in the questionnaire available to interviewers.

If Question 4 has code 1, 3, 4 or 5 - read out the following description before asking Question 5:

**The eutrophication of water is excessive plant growth due to increased nutrient (nitrogen and phosphorus) concentration.**

Ask all

**5. Have you heard of water eutrophication problems existing in Latvia/ Lithuania (corresponding to the country of questioning)?** Single response.

Yes, I have heard of them	1
No, I haven't heard of them	2

**6. Which of the following features would indicate low quality of water in a river or lake?** Read out all the statements in turn. One response in each row.

		Yes	No	Hard to say
1	Cloudy/ murky water	1*	2	9
2	Small number of fish	1*	2	9
3	Banks heavily overgrown with weeds	1*	2	9
4	Small number of spatterdocks (yellow water-lilies)	1	2*	9
5	Blooming of cyanobacteria/ blue-green algae can be observed	1*	2	9
6	Artificially fortified banks (e.g., using concrete)	1*	2	9
7	There is a dam in the river/ at lake source (e.g. HES dam)	1*	2	9

**6.a. Could you name any other indicators of low water quality in a river or lake?**

.....  
No/ Hard to say 99

**7. What type of impact – a positive or negative one - do you think the following human activities have on the quality of river, lake, coastal or underground waters?** Read out options. One answer for each statement. Statement rotation.

		Very positive impact	Positive impact	Neutral impact	Negative impact	Very negative impact	Hard to say
1	Industrial waste water	5	4	3	2*	1*	9
2	Sewage waste water created by households	5	4	3	2*	1*	9
3	Dry toilets in rural areas	5	4	3	2*	1*	9
4	Intensive fertilization of agricultural land	5	4	3	2*	1*	9
5	Grazing near rivers or lakes	5	4	3	2*	1*	9
6	Drainage of agricultural land	5	4	3	2*	1*	9
7	Deforestation near rivers and lakes	5	4	3	2*	1*	9
8	Hydroelectric plant activity	5	4	3	2*	1*	9
9	Port activity	5	4	3	2*	1*	9
10	River or lake bank fortification	5	4	3	2*	1*	9
11	River straightening	5	4	3	2*	1*	9

**7.a. Could you name any other factors with a negative impact on the quality of river, lake, coastal or underground waters?**

.....  
No/ Hard to say 99

**8. What measures do you think help to protect and improve the condition of river, lake, coastal and underground waters?** Read out all the statements in turn. One response in each row.

		Helps	Does not help	Hard to say

**Research / project:** Venta River Area Residents' Awareness About Water Management Issues

1	Treatment of wastewater before release into the environment	1*	2	9
2	Creation of protective zones around waters	1*	2	9
3	River straightening	1	2*	9
4	Use of eco-friendly detergents in households	1*	2	9
5	Restricting the use of fertilizers in agriculture	1*	2	9
6	Deforestation near rivers and lakes	1	2*	9
7	Stricter environmental protection requirements for hydroelectric plants	1*	2	9
8	Stricter environmental protection requirements for port activity	1*	2	9
9	Treatment of contaminated sites (landfills, former pesticide storage, oil bases, etc.)	1*	2	9

**9. Have you heard of plans for the management of specially protected nature territories?**

Yes	1
No	2

**10. Have you heard of plans for the management of river basin areas?**

Yes	1
No	2

**11. Up to now, what sources have you obtained information from on river, lake, coastal and underground water management issues? Read out options. Multiple responses possible.**

Print media	1
TV	2
Radio	3
Internet	4
Other source (specify) _____	5
Haven't received any information at all/ Not interested in this subject	6

**12. How would you like to receive current information on issues of river, lake, coastal and underground water management? Read out options. Multiple responses possible.**

Print media	1
TV	2
Radio	3
Internet	4
Other source (specify) _____	5
Do not wish to receive any information	6

**13. Would you like to get involved in the management of a river, lake, or coastal area?**

Yes	1	→ 13a
No	2	→ 13b

Ask those who have Code 1 marked at Question 13

**13a. Which of these activity options would you be interested in? Read out each option in turn.**

		Yes	No
1	Expressing your opinion and suggestions via the internet	1	2
2	Taking part in public discussions/ seminars near your place of residence	1	2
3	Taking part in joint river or lake cleanups and similar events	1	2
4	Other (specify): .....		

Ask those who have Code 2 marked at Question 13

**13b. Can you please explain why not?**

-----  
Hard to say 99

Ask all

**14. Do you have any comments or anything to add in connection with these survey questions?**

-----

## DEMOGRAPHY

Before we finish, a few questions about you.

D1. Gender (*do not ask*)

Male	1
Female	2

D2. How old are you? Write in full years \_\_\_\_\_  
Refuses to answer 99 (*do not offer this option!*)

D3. What is your level of education?

Unfinished primary/ primary	1
Secondary / secondary vocational	2
Level 1 Higher (college)	3
Higher (higher educational institution/ university education)	4
Refuses to answer ( <i>do not offer this option!</i> )	9

D4. Which social group do you belong to?

Employed in public administration (national/ municipal authorities)	1
Employed in private sector	2
Self-employed	3
Pensioner	4
Student (school/ university)	5
Homemaker	6
Unemployed	7
Other ( <i>specify</i> )	8
Refuses to answer ( <i>do not offer this option!</i> )	9

D5. Are you connected to the field of environmental protection (e.g., through work, education, hobbies)?

Yes	1
No	2

*Interviewer marks after interview:*

D6. Interview language:

Latvian	1
Lithuanian	2
Russian	3

D7. Interview country:

Latvia	1
Lithuania	2

**We are very grateful for your cooperation in taking part in this survey!!!**

## STATISTICAL ERROR EVALUATION TABLE

Using the results it is necessary to take into account the statistical error. The differences, which are within the statistical error limit or less, are considered as *insignificant*.

Statistical error is calculated with this equation:

$$SK = q \times \sqrt{\pi \times (100 - \pi) / n}$$

where :

SE – statistical error

q – coefficient = 1.96 for 95% probability;

$\pi$  - division of answers (%)

n – number of respondents

In order to determine the statistical measurement error more conveniently and quickly, it is useful to use the statistical error evaluation table.

**TABLE OF DETERMINATION OF STATISTICAL ERROR**  
(with 95 % probability)

Division of answers (%)	Sample size [ n ] =											
	50	75	100	200	300	400	500	600	700	800	900	1000
1 or 99	2.8	2.2	1.9	1.4	1.1	1.0	0.9	0.8	0.7	0.7	0.6	0.6
2 or 98	3.9	3.2	2.7	1.9	1.6	1.4	1.2	1.1	1.0	1.0	0.9	0.9
4 or 96	5.4	4.5	3.8	2.7	2.2	1.9	1.7	1.6	1.5	1.4	1.3	1.2
6 or 94	6.6	5.4	4.7	3.3	2.7	2.3	2.0	1.9	1.8	1.7	1.6	1.5
8 or 92	7.5	6.1	5.3	3.8	3.1	2.7	2.4	2.2	2.0	1.9	1.8	1.7
10 or 90	8.3	6.8	5.9	4.2	3.4	2.9	2.6	2.4	2.2	2.0	2.0	1.9
12 or 88	9.0	7.4	6.4	4.5	3.7	3.2	2.9	2.6	2.4	2.3	2.1	2.0
15 or 85	9.9	8.0	7.0	5.0	4.0	3.5	3.1	2.9	2.6	2.5	2.3	2.2
18 or 82	10.7	8.7	7.5	5.3	4.4	3.8	3.4	3.0	2.9	2.7	2.5	2.4
20 or 80	11.1	9.1	7.8	5.5	4.5	3.9	3.5	3.2	3.0	2.8	2.6	2.5
22 or 78	11.5	9.4	8.1	5.7	4.7	4.1	3.6	3.3	3.1	2.9	2.7	2.6
25 or 75	12.0	9.8	8.5	6.0	4.9	4.2	3.8	3.5	3.2	3.0	2.8	2.7
28 or 72	12.5	10.2	8.8	6.2	5.1	4.4	3.9	3.6	3.3	3.1	2.9	2.8
30 or 70	12.7	10.4	9.0	6.4	5.2	4.5	4.0	3.7	3.4	3.2	3.0	2.8
32 or 68	12.9	10.6	9.1	6.5	5.3	4.6	4.1	3.7	3.5	3.2	3.1	2.9
35 or 65	13.2	10.8	9.4	6.6	5.4	4.7	4.2	3.8	3.5	3.3	3.1	3.0
40 or 60	13.6	11.1	9.6	6.8	5.5	4.8	4.3	3.9	3.6	3.4	3.2	3.0
45 or 55	13.8	11.3	9.8	6.9	5.6	4.9	4.4	4.0	3.7	3.5	3.3	3.1
50 or 50	13.9	11.3	9.8	6.9	5.7	4.9	4.4	4.0	3.7	3.5	3.3	3.1

In order to determine the statistical error the unweighted number (count or n) of corresponding group is needed as well as division of answers in percentage. Using these values it is possible to find the limit of statistical error in the corresponding part of the table + / - % with **95% possibility**.

For example, if as a result of the survey, a target group of 12.0% of all the surveyed residents of Latvia (respondent number n = 1000), who express an affirmative attitude towards the judgement or statement "X" is obtained, then we can say with 95% probability that the statistical measurement error here is in the range of + / - 2.0%. It follows that the target group identifying themselves with judgement or statement "X" is between 10.0% and 14.0%.

# DATA TABLES